

Organization Information

Organization Name *

UNITY GLOBAL ACADEMY

Telephone
3214741708

Address
TBD

Zip Code
27253

State
North Carolina

Fax

Unit/Suite

Unit/Suite

Powered by **Contract** Edlusion

6/8/2022







Powered by **Edlusion**

6/8/2022



NC Public Charters



Primary Contact Name * PETER MORCOMBE	Opening Year * 2023		
Is Management Organization Used O Yes No	Management Organization Name		
Primary Contact Relation To Board * SECRETARY	Primary Contact Email * peter@morcombe.net		
Management Organization Contact Name	Management Organization Phone		
Primary Contact Phone * 3214741708	Management Organization Email		
PrimaryContact Address * 474 Graham Road	Unit/Suite *		
Zip Code * 27253	City * Graham		
State * North Carolina			

NC Public Charters



1. Application Contact Information

Q1.Name of Proposed Charter School

UNITY GLOBAL ACADEMY

Q2.Primary Contact's Alternate Telephone Number (xxx-xxx-xxxx)

• The primary contact will serve as the contact for follow-up, interviews, and notices regarding this Application

Peter Morcombe is the primary contact. His telephone number is 321-474-1708. His address is 474 Thompson Road, Graham, NC 27253.

Applicant Comments:

Peter Morcombe (Secretary)

474 Thompson Road, Graham, NC 27253

321-474-1708

Q3.Geographic County in which charter school will reside

The charter school will reside Graham which is located in Alamance County.

Applicant Comments:

Alamance

Q4.LEA/District Name

The LEA/District name is Alamance-Burlington (010).

Applicant Comments:

Alamance-Burlington, LEA #010

Q5.Zip code for the proposed school site, if known

27253

NC Public Charters



Q6.Was this application prepared with the assistance of a third party such as a consultant or Charter Support Organization (CSO) (https://simbli.eboardsolutions.com/Policy/ViewPolicy.aspx?S=10399&revid=hejlslsh9el7BC8rRkMVLthGg%3d%3d&ptid=amlgTZiB9plushNjl6WXhfiOQ%3d%3d&secid=lyc2NlZPsdzgEk6V6aJ45g%3d%3d&PG=6&IRP=0)?

- O Yes
- No

Q10.Projected School Opening Month

The projected school opening month for Unity Global Academy is August 2023.

Q11. Will this school operate on a year-round schedule?

- Yes (Year-Round)
- O No

Q12.Complete the Enrollment Summary table (see resources), providing grade levels and total projected student enrollment for Years 1-5.

Upload Required File Type: excel Max File Size: 30 Total Files Count: 1

Applicant Comments:

In Year 1, Unity Global Academy will enroll 450 students in grades Kindergarten - 8. We will then add 50 students and expand by one grade level each year until we are serving students in grades Kindergarten - 12 in Year 5. This approach worked well for two existing FREE schools, namely the River Mill Academy and the Clover Garden school, both located in Alamance county.

Resources



Enrollment Summar...



NC Public Charters



Applicant Evidence:



Uploaded on **3/17/2022**

by **PETER MORCOMBE**

Q13.Complete the Enrollment Demographics table (see resources), providing projected enrollment for each of the following demographic groups.

Upload Required File Type: excel Max File Size: 30 Total Files Count: 1

Resources



Applicant Evidence:



Uploaded on **3/17/2022**

by **PETER MORCOMBE**

Q14.Describe the rationale for the number of students and grade levels served in year one and the basis for the growth plan outlined above.

NC Public Charters



We are following the approach of FREE (Financial Reform for Excellence in Education) that is based on small schools and small class sizes. In particular we are following the pattern of the Clover Garden School in Altamahaw that opened in 2001 with 36 students per grade. However we are requesting a limit of 50 students per grade to allow some flexibility in Year 1. From past experience we know that in the first year it is unlikely that all grades will "Max Out". Some grades will have 50 students while others will fall short.

We don't want to have to turn students away as might happen if we were limited to 36 students per grade and we don't want to assign students to grades that don't fit their achievement levels just to satisfy an arbitrary limit per grade. The budget is based on an average of ~17 students per grade.

Clover Garden enrolled students in nine grades (K-8) for a total of 324 students. After that, one grade was added per year for a total of 468 students. The school now serves over 600 students. The Unity Global Academy will follow that approach.

In Year 1, Unity Global Academy will enroll students in grades K-8 with a maximum of 50 students/grade. From past experience we are confident that there will be a significant waiting list in Year 2 with all grades "Maxed Out" with 50 students. Enrollment will rise to 650 in Year 5.

Applicant Comments:

We are following the approach of FREE (Financial Reform for Excellence in Education) that is based on small schools and small class sizes. Specifically, we are following the pattern of the Clover Garden School in Altamahaw that opened in 2001 with 36 students per grade. In its first year, Clover Garden enrolled students in nine grades (K-8) for a total of 324 students. After that, one grade was added per year for a total of 468 students. The school now serves over 600 students.

In Year 1, Unity Global Academy will enroll students in grades K-8 with 50 students/grade for a total of 450 students. Enrollment will rise to 650 in Year 5.

Q15. This subsection is entirely original and has not been copied, pasted, or otherwise reproduced from any other application.

- I certify
- I do not certify

Q16.Explanation (optional)

NC Public Charters



FREE has created and managed six charter schools in North Carolina, namely the Village CS, the Orange CS (now the Eno River Academy), the Carter Community School, the River Mill Academy and the Clover Garden school. All six were set up on a "Fast Track" schedule. In this application we have selected ideas that worked best in these six schools.

Much of this charter application is similar to the Clover Garden charter school proposal. The Clover Garden school is deservedly popular within the community it serves. Two of our board members served on the Clover Garden school board, and one of them wrote the charter proposal.

This application uses the same basic approach (opening with grades K-8) as the Clover Garden school in Alatamahaw.

Transitioning to a high school by rolling forward one grade per year worked well at the Clover Garden school and also at the River Mill Academy. This approach improves the chances that our students will be ready to tackle a really the challenging 9-12 grade curriculum that the CA (Cambridge Assessment) provides.

The curriculum we will use is the latest version of the one used by the Woods charter school in Chatham county. The curriculum contains about two more years of content than the North Carolina "Standard Course of Study". We believe that this broad and deep curriculum was a major factor in the Woods charter school being ranked #1 out of 357 NC high schools only four years after it opened.

Our approach is innovative in the sense that there are few CA schools in the USA. However there are several CA schools in the Charlotte-Mecklenburg System and there are 10,000 CA schools around the world so it is well tested innovation.

Applicant Evidence:



Uploaded on 3/19/2022 Uploaded on 3/19/2022 by PETER MORCOMBE by PETER MORCOMBE



NC Public Charters



NC Public Charters



2. Non-Profit Corporation Information

Private Non-profit Corporation (NCGS 115C-218.1)

• The nonprofit corporation must be officially authorized by the NC Secretary of State upon application submission.

Q17.Organization Type

- Non-Profit Corporation
- Municipality

Q18. Has the organization applied for 501(c)(3) non-profit status?

- Yes
- O No

Q19. The private non-profit listed as the responsible organization for the proposed charter school has 501(c)(3) status:

- Federal Tax-Exempt Status (NCGS 115C-218.15)
- If the non-profit organization has yet to obtain 501(c)(3) status, the tax-exempt status must be obtained from the Internal Revenue Service within twenty-four (24) months of the date the Charter Application is given final approval.
 - Yes
 - O No



NC Public Charters



Applicant Evidence:



Uploaded on **3/19/2022**

by **PETER MORCOMBE**

Q20.Attach Appendix F Federal Documentation of Tax-Exempt Status

Upload Required File Type: pdf, image, excel, word, text Max File Size: 30

Total Files Count: 10

Applicant Comments:

The IRS granted FREE 501(c)(3) status in June 1999.

Applicant Evidence:



FREE-501(c)(3).xls

Uploaded on **4/10/2022**

by **PETER MORCOMBE**



NC Public Charters



Q21.Name of Registered Agent and Address:

Fred Johnson was the registered agent until 2004

Today the registered agent is:

Peter H. Morcombe, 474 Thompson Road, Graham, NC 27253

Applicant Evidence:



FREE-REGISTRATION....

Uploaded on **4/10/2022** by **PETER MORCOMBE**

Q22.Federal Tax ID

56-1992519



NC Public Charters



3. Acceleration

Per State Board of Education policy CHTR-013 (https://simbli.eboardsolutions.com/ePolicy/policy.aspx?PC=CHTR-013&Sch=10399&S=10399&C=CHTR&RevNo=1.12&T=A&Z=P&St=ADOPTED&PG=6&SN=true), the State Board of Education, in its discretion, may accelerate the mandatory planning year to increase the number of high-quality charter schools.

- Yes
- O No

Applicant Comments:

FREE has created six charter schools in North Carolina within six months of the charter applications being approved. FREE did this using "Start up funding" in the form of grants from the federal government ranging from \$56,000 for the Village charter school to \$100,000 for the Clover Garden school. FREE has raised ~\$190,000 in start up grants are delayed or not available.

Q24.Requirements

In considering whether to accelerate the planning year, the applicant must meet the following requirements: Requirement 1) Demonstrate a clear and compelling need for the accelerated planning year.



NC Public Charters



In February 2022 the River Mill Academy held a lottery to allocate places for the school year that starts in August 2022.

A total of 594 applications were received but only 80 places were available, so the current waiting list for this school is 514.

A similar situation exists at the Clover Garden school and at Hawbridge which suggests that Alamance county as a whole needs several new schools for the 2022/3 school year.

Large waiting lists at charter schools are a chronic problem in Alamance county so the Unity Global Academy with its 450 places is urgently needed. Therefore we request that our charter application be approved on an emergency basis.

FREE can guarantee the school will open in August 2023 assuming that this application is approved no later than March 31, 2023. Remember that we were given charters for six schools and all of them opened within five months of the approval date.

FREE has the experience. FREE has the start up funds. FREE has professionals with a passion for K-12 education. FREE has the support of local government including mayor Jennifer Talley. FREE has support from the Alamance county commissioners.

All we need to create another outstanding school opening in 2023 is a charter.

Q25.Requirement 2) Demonstrate an exceptional need for the charter school in the proposed location.

The Unity Global Academy sees opportunities to work with the ABSS to help introduce vocational options in Graham that would allow high school graduates to earn higher salaries than most university graduates can command.

For example fiber optics training that is currently only available in tertiary education can be delivered in high schools so that students will be read to earn six figure salaries on completing their secondary education.

Alamance county is experiencing high growth owing to low taxes, and commercial development that is putting a strain on the school system. New schools are urgently needed.

The mayor of Graham has made a strong case for locating a new school in her jurisdiction. Letter attached.



NC Public Charters



Applicant Evidence:



Uploaded on 3/19/2022 Uploaded on 3/20/2022 by PETER MORCOMBE by PETER MORCOMBE

Q26.Requirement 3) Agree to participate in the planning year while the charter application is being reviewed without any guarantee of charter award.

- Yes
- O No

Q27.Requirement 4) Is a facility identified by the applicant that is feasible for opening on an accelerated schedule?

- Yes
- No

Q28.Requirement 5) Demonstrate that the facility identified by the applicant is feasible for opening on an accelerated schedule

Louise Cole is a realtor with 30 years experience,

She found buildings for the first six FREE schools and obtained certificates of occupancy within five months of charter approval. She has never failed to find buildings that are well suited for students, teachers and staff.

She believes it can be done in five to six months with fast track permitting once she selects a building.

Q29.Attach Appendix A1 Acceleration Evidences to demonstrate that you have a facility secured for opening on an accelerated schedule.



NC Public Charters



✓ Upload Required File Type: pdf, image, excel, word, text Max File Size: 30

Total Files Count: 5

Applicant Evidence:



Uploaded on **4/10/2022**

by **PETER MORCOMBE**

Q30.Other Factors

Once evidence for the requirements has been verified, the State Board will also consider the presence or absence of the following factors in making its determination:

- This list is not exclusive or controlling and is intended to guide the exercise of the State Board's discretion.
- An applicant requesting acceleration must submit the request to the State Board of Education prior to the application due date for consideration.

Other Factor 1) Please write a brief statement about your unique mission and educational program.

Our mission is to address the chronic shortage of charter school places in Alamance county in general and in Graham in particular.

Sadly there is nothing "Unique" about this yet it matters a great deal to the local community.

Q31.Other Factor 2) List the local, state, and national nonprofit partnerships committed to assisting the school.

Some of our earlier schools were supported by Duke university and the NCSS&M. In our experience it is easier to get support from universities and non-profits once the charter is approved.

Q32.Other Factor 3) Please describe the potential for Economic and Educational development of the region.



NC Public Charters



There is a great need for vocational education in Alamance county. We are encouraged that the ABSS is introducing vocational education into the Graham high school and we would like to support that, since the strong local economic development has already created a need.

Q33.Other Factor 4) Describe the presence or absence of any mentoring by a successful organization that has experience in creating public schools.

Since our business model emphasises the use of volunteers, we are good at finding mentors from the local community.

Q34.Other Factor 5) Describe any obstacles to educational reform efforts that leave chartering as an available option.

The traditional process for creating a new school takes a minimum of four years. Charter schools can create capacity in half the time and one third of the money.

Q35.Other Factor 6) Describe your commitment to work with a successful charter school board as a guiding mentor.

There are two FREE schools in Alamance county that have been operating for over 20 years. They have developed manuals and procedures that have been fine tuned over the years. While these schools have been independent of FREE since 2004 we have good relationships with both of them.

FREE board members have been allowed access the a wide range of documents and reports from these schools that have contributed to this charter application.

The Woods CS in Chatham county started out as a "Cambridge" school. Recently one of our board members visited the Woods CS. The highlight was an hour spent in the teacher's common room talking to faculty members. What an inspiring experience!

Q36.Other Factor 7) How long has the board of directors existed?



NC Public Charters



FREE was founded in 1996. The board membereship has changed over the last 25 years. At one point there were 14 board members but today there are only four. Two of the founder members (Louise Cole and Peter Morcombe) still serve on the board.

FREE's main mission is to create new charter schools. We also manage the new schools until they are strong enough to survive independent of FREE. Then they form a new 501(c)(3) with its own board to take over the school so that the local community has control and oversight.

Q37.Other Factor 8) Describe whether the proposed board has previously operated or currently operates a successful public charter school.

Yes, so far we have created and operated six charter schools in North Carolina. The Village Charter School is no longer operating. The five remaining schools are:

The Orange Charter School, renamed as the "Eno River Academy".

The Woods Charter School

The Carter Community School, renamed as "Community School of Digital and Video Arts"

The River Mill Charter School, renamed as "River Mill Academy"

The Clover Garden School



NC Public Charters



4. Conversion

Q38.Is this application a Conversion from a traditional public school or private school?

- O Yes
- No



NC Public Charters



5. Replication

Per SBE policy CHTR-016 (https://simbli.eboardsolutions.com/ePolicy/policy.aspx?PC=CHTR-016& Sch=10399&S=10399&C=CHTR&RevNo=1.02&T=A&Z=P&St=ADOPTED&PG=6&SN=true), the State Board of Education (SBE) may, in certain well-defined instances, grant permission for a non-profit corporation board of directors (board) to replicate either its own successful model or to employ an educational management company (EMO) or a charter management organization (CMO) to replicate a successful model currently being operated under the management of the EMO or CMO. The SBE may also, in certain well-defined instances, grant permission for a non-profit corporation board to "fast track" such a replication by foregoing the planning year normally required for newly-approved charter applicants.

Q55.ls this application being submitted as a replication of a current charter school model?

O Yes

No

Applicant Comments:

This proposal contains elements of earlier charter school proposals, namely the Clover Garden School and the Woods Charter School but is more than a clone or a replication.

NC Public Charters



6. Alternative

*A charter school meeting the eligibility criteria set forth in this policy and seeking designation as an "alternative school" must submit an application to the Office of Charter Schools describing in detail the school's mission as it relates to the request for the designation; the criteria the school plans to use that will meet the eligibility requirements set forth below, including the documentation the school will use to support its admissions process; how the school intends to serve the select population, educationally and otherwise; and the goals the school is setting for academic achievement for this population. The application must also include an admission plan that is well-defined and specifically limited to serving at-risk students as described in the application. A plan that is not well-defined will not be approved.

*The school must, in its application, designate which of the alternative accountability options it is requesting under ACCT-038 (https://simbli.eboardsolutions.com/ePolicy/policy.aspx?PC=ACCT-038&Sch=10399&S=10399&C=ACCT&RevNo=1.02&T=A&Z=P&St=ADOPTED&PG=6&SN=true). The option selected, if approved, cannot be changed except at the time of renewal (as outlined in CHTR-020.III (https://simbli.eboardsolutions.com/ePolicy/policy.aspx?PC=CHTR-020&Sch=10399&S=10399&C=CHTR&RevNo=1.02&T=A&Z=P&St=ADOPTED&PG=6&SN=true)).

Q84.Do you want your application to be considered for an Alternative Charter School?

Yes

No



NC Public Charters



7. EMO/CMO

Q86.Does the Charter School plan to contract for services with an "educational management organization" or "charter management organization?

O Yes

No

Applicant Comments:

One reason why our business model is efficient is our exclusion of EMOs and CMOs.



NC Public Charters



8. Mission Purposes, and Goals

8.1. Mission and Vision

The mission and vision statements, taken together, should:

- Identify the students and community to be served;
- Illustrate what success will look like; and
- Align with the purposes of the NC Charter School Law.

Q101.Please state the mission statement of the proposed charter school (35 words or less)

- The mission statement defines the organization's purpose and primary objectives, describing why it exists.
- The mission statement should indicate in measurable terms what the school intends to do, for whom, and to what degree.

The Unity Global Academy will return educational agency to families and community, implementing a rigorous yet accessible curriculum, preparing every student to analyze, synthesize and communicate in academic and real-world applications.

Applicant Comments:

"Where the control of education is taken out of the hands of the family and the community, and schooling gets further and further away from the people who have a direct stake in it, the quality suffers. It is that which accounts in the largest part, for the deplorable state of American education today."

Human Scale, page 127, by Kilpatrick Sale.

Q102.Please state the vision statement of the proposed school.

- What will the school look like when it is achieving the mission?
- The vision statement outlines how the school will operate and what it will achieve in the long term.

NC Public Charters



FREE's vision is to allow the school leadership and staff as much freedom as possible so that they can manage all day to day activities. This approach empowers the staff to respond to their customers without undue delay. Empowering the staff improves the satisfaction of teachers, parents and students.

To make this work the FREE board delegates control of about 97% of school expenditures to the principal. FREE retains control of roughly 3% of the spending. The items that the FREE board controls are:

- The curriculum
- Financial management from book keeping to annual audits. FREE follows Harold Geneen's "No Surprises" approach.
- School inspections. Each year the school will be inspected by experts who report to the board rather than to the principal.
- Hiring the principal. The FREE board hires the principal directly. Board approval is required for all other hiring and firing.
- Legal issues.
- Decisions that affect the Balance sheet.

FREE set up six schools over 20 years ago. Once a school was viable it was allowed to become an independent non-profit corporation. Overlapping board memberships were not allowed. The last FREE school became independent in 2004 and FREE ceased operations since its primary mission is school start up.

Now that the "Cap" has gone FREE has decided to resume operations.

One of FREE's aims was to keep the schools "Human Scale" with a maximum of 300 students. Three of our schools already have over 800 students.....we have mixed feelings about that.

Instead of starting two or three schools per year FREE wants to open a single school in Graham opening in August 2023. How many schools we will want to open in 2024-25 will depend on the response of the local community to the first one. By "Local Community" we mean Alamance and surrounding counties. Peter Drucker says that the most important test is a "Market Test".

The Unity Global Academy will implement the Cambridge curriculum that was used in the Woods Charter School when it was first ranked #1 in North Carolina in SAT scores (2002). The Woods CS has continued to excel with average SAT scores averaging above 1250 today.

The UGA school will operate under highly qualified and trained faculty, with oversight and inclusion



NC Public Charters

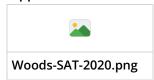


of the community and families of the students. Students will be engaged and active participants in their education, led by teachers who are highly satisfied and appropriately compensated for their investment of time, talent, and energy. Learning will take place beyond the walls of the classroom, with teachers given the agency and flexibility to conduct outdoor classes and hands-on learning. Graduates will be academically and holistically prepared to enter college. The Cambridge curriculum is rigorous and promotes high achievement, with the flexibility of implementation and differentiation which makes it accessible for every student.

The school will serve the community as a diverse, inclusive, and thriving option for families committed to college bound as well as vocational education.

Over the years the CA curriculum is grown in breadth and depth. Vocational education options are now available. Since the Graham high school is planning to introduce vocational programs there may be opportunities for co-operation between the two schools.

Applicant Evidence:



Uploaded on **3/27/2022** by **PETER MORCOMBE**

Q103.Educational Need and Targeted Student Population of the Proposed Charter School Provide a description of the Targeted Population in terms of demographics. In your description, include how this population will reflect the racial and ethnic composition of the school system in which it is located. Additionally, how it will reflect the socioeconomic status of the LEA, SWD population, and ELL population of the district? See G.S. 115C-218.45(e) (https://www.ncleg.net/EnactedLegislation/Statutes /PDF/BySection/Chapter_115C/GS_115C-218.45.pdf).

Our objective is to serve the community by increasing the education choices available to parents and students. Under North Carolina law, the school must select students by lottery, and we base our estimation of composition on the general composition of the Alamance County school district.



NC Public Charters



Applicant Evidence:



Uploaded on **3/27/2022**

by PETER MORCOMBE

Q104.What are the enrollment trends and academic performance outcomes of surrounding schools in the selected community? What elements of your educational model will meet the needs of your target student population?

The ABSS currently has 37 schools and ~23,000 students with a high proportion of disadvantaged students.

From prior experience, we believe that a rich and challenging curriculum benefits most children. For parents who want their children to attend major universities, the Cambridge Assessment gives them an advantage. At present, there are nearly a million students in over 10,000 Cambridge schools in 160 countries. The CA has a global approach that benefits a diverse, inclusive student population beyond what a typical standardized approach can achieve.

In addition to the CA, our education model emphasizes time outdoors, vocational and hands-on experiences. Our relatively small school size and low student-to-teacher ratio allows more flexibility to explore beyond the classroom walls.

Q105.What will be the total projected enrollment at the charter school and what percentage of the Average Daily Membership (ADM) does that reflect when compared to the Local Education Agency (LEA) of the same offered grade levels? (i.e. If the proposed school will be grades 9-12, only compare the total enrollment to the total enrollment of the LEA in grades 9-12).

The school will open with a maximum of 450 students in grades K-8.

In Alamance county there are \sim 15,300 students in these grades so our school plans to enrol <3% of the LEA total.



NC Public Charters



Q106.Summarize what the proposed school will do differently than the schools that are now serving the targeted population. What will make this school unique and more effective than the currently available public-school options?

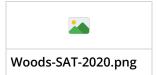
FREE's model is "Bottom Up" instead of "Top Down" which means that staff, students and parents have a say in the day to day operation of the school. This explains why no two FREE schools are alike.

Eventually the UGA will become a high school but that will take several years since it will start as a K-8 school. Rolling forward one year at a time makes it easier to implement the staff development needed to fully implement the demanding CA curriculum.

Students will be engaged and active participants in their education, led by teachers who are highly satisfied and appropriately compensated for their investment of time, talent, and energy. Learning will take place beyond the walls of the classroom, with teachers given the agency and flexibility to conduct outdoor classes and hands-on learning.

Graduates will be academically and holistically prepared to enter college. The Cambridge curriculum is rigorous and promotes high achievement, with the flexibility of implementation and differentiation which makes it accessible for every student. The school will serve the community as a diverse, inclusive, and thriving option for families committed to academic and vocational studies.

Applicant Evidence:



Uploaded on 3/20/2022 by PETER MORCOMBE

Q107.Describe the relationships that have been established to generate support for the school. How have you assessed demand for the school? Briefly describe these activities and summarize their results



NC Public Charters



Our objective is to serve the community by increasing the education choices available to parents and students.

Thus far we have formal support from the Alamance county commissioners and mayor Talley of Graham. We have informal support from several members of the community as well as parents. In this we have been greatly helped by the local newspapers who have given us publicity.

There is a huge demand for places in charter schools as demonstrated by the size of the waiting lists. Each of the four existing charter schools have waiting lists from 300 to 500. This is strong evidence of the need to create more charter schools.

Applicant Evidence:



Uploaded on **3/20/2022**

by **PETER MORCOMBE**

Q108.Attach Appendix A: Evidence of Community/Parent Support.

- Provide evidence that demonstrates parents and guardians have committed to enrolling their children in your school.
- You must provide evidence through a narrative or visual of this educational need through survey data, or times and locations of public meetings discussing this proposed charter school.
- (Please do not provide more than one sample survey form).
 - ☑ Upload Required File Type: pdf, image, excel, word, text Max File Size: 30

Total Files Count: 5

NC Public Charters



Applicant Comments:

The Alamance-Burlington School System currently has 37 schools and 22,067 students with a high proportion of disadvantaged children:

https://www.usnews.com/education/k12/north-carolina/districts/alamance-burlington-schools-103059 (https://www.usnews.com/education/k12/north-carolina/districts/alamance-burlington-schools-103059)

Once a charter has been granted it makes sense to hold public meetings that have always been well attended in Alamance county. Once we have a charter, parents flock to our public meetings. The reputation of the existing charter schools has made our job of attracting students easier as evidenced by their waiting lists.

FREE has not solicited parents to enroll children in our school. Nor have we carried out surveys or hosted public meetings. The demand for FREE schools is evident from the waiting lists for the two existing FREE schools in Alamance county.

In February 2022, the River Mill Academy (a FREE school with 915 students) held a lottery for the 80 vacancies available in August 2022. When the lottery was completed the waiting list was 514 students. The Clover Garden school (another FREE school) is expanding from 600 students to 955 in August 2023 so it had more places on offer. After the lottery there were still over 400 names on the waiting list. The demand for places in charter schools is huge in Alamance county and especially for FREE schools. The demand for places far outstrips the supply.

FREE attended public meetings held by the Alamance county commissioners who voted to support the Unity Global Charter school. They are well aware that charter schools currently account for more than 10% of the county K-12 enrollment but they are ready to welcome more charter schools. See attached letter.

FREE wrote to all the Alamance county mayors. We had follow up meetings with mayors and staff. Since the strongest support was from mayor Talley in Graham, FREE decided to locate in ZIP code 27253. Mayor Talley is aware that the River Mill Academy, located in Graham, is a FREE school. See attached letter.

FREE is raising start up funds for the Unity Global Academy. As part of that effort we have solicited loans from local people. To date we have collected ~\$30,000. FREE considers this strong evidence of community support. We expect to build a fund of at least \$500,000 before the school opens in August 2023.



NC Public Charters



Applicant Evidence:



Uploaded on 5/16/2022 Uploaded on 5/16/2022 Uploaded on 5/17/2022 by PETER MORCOMBE by PETER MORCOMBE

8.2. Purposes of the Proposed Charter School

Q109. Select one or more of the six legislative purposes the proposed charter will achieve, as specifically addressed in the NC charter school statute GS 115C-218, and the proposed school's operations. The Six Legislative Purposes of a Charter School are:

- Create new professional opportunities for teachers, including the opportunities to be responsible for the learning program at the school site.
 Hold schools accountable for meeting measurable student achievement results.
 Provide parents and students with expanded choices in the types of educational opportunities that are available within the public-school system.
 Improving student learning.
 Increasing learning opportunities for all students, with a special emphasis on at-risk or gifted students.
- ☐ Encourage the use of different and innovative teaching methods.

NC Public Charters



Applicant Comments:

FREE demonstrated its ability to provide expanded choices to parents and students by setting up the River Mill Academy and the Clover Garden school in Alamance county.

These schools recently held lotteries for places that will be available in August 2022. The statistics indicate an amazing level of customer loyalty. In the case of the River Mill Academy only 12 places are available for grades 1 through 12. An average of one place per grade! How is that possible in a time when so many parents are changing jobs? Since this school has 70 students per grade this is a vacancy rate of only 1.4%.

There were 419 applications for these 12 places so the current waiting list is 407. There is evidence of "Lottery Fatigue". Since the odds of success are not good many parents stop putting their names forward after three or four years. The true demand for places at the River Mill Academy is probably even higher than the figures indicate.

Similar numbers are found at the Clover Garden school and the Hawbridge school so the immediate demand for charter school places greatly exceeds the 450 places that the Unity Global Academy plans to create.

The main justification for the UGA is providing more choices for parents and with that in mind we will not duplicate the course offerings of the River Mill Academy, the Clover Garden school, the Alamance Community Charter, or the Hawbridge school.

The UGA offers CA (the Cambridge Assessment) that is an updated version of the curriculum used at the Woods charter school in Chatham county. Educators in the Chartlotte Mecklenburg Schools have loved the CA curriculum since 2015.

Q110.Provide a brief narrative to coincide with <u>each</u> applicable legislative purpose(s).



NC Public Charters



TRAINING. We are committed to ongoing training in the CA, and will provide professional development and professional learning committees for teachers.

ACCOUNTABILITY. The new school will be subject to the same testing as all other NC schools, namely the ABCs, the EOGs, NAEPs, SATs etc.

PARENT CHOICES. The CA includes more course content than is required to meet the NC "Standard Course of Study".

IMPROVE STUDENT LEARNING. The Cambridge curriculum utilizes a phonics approach to reading (formerly known as Science Based Reading Research). This proven method of reading instruction will be accompanied by a mathematics textbook that has been proven tremendously successful in other countries. A similar approach will be used for physic texts.

GIFTED & AT RISK CHILDREN. The CA is in and of itself a deep, rigorous curriculum that encourages higher level critical thinking and promotes questioning and curiousity, with a wide range of AP classes. That said, the CA is flexible enough that in the hands of qualified EC staff, it is appropriate and accessible for all students, including at risk students who need instruction that matches their unique learning styles.

INNOVATION. The Cambridge curriculum is innovative in the USA; it is already used in 10,000 schools world wide. The attached video describes some of the reasons that the Cambridge curriculum is a welcome fresh approach to education.

The attached three minute video features the Dean of Admissions at Duke university explaining why he likes CA.

Applicant Comments:

While there are more than 10,000 Cambridge Assessment (CA) schools, several can be found in North Carolina. There is a cluster of CA schools run by the Charlotte Mecklenburg Schools, and there are a few CA charter schools.

Parents yearn for content rich curricula such as Core Knowledge and Cambridge Assessment. We want to make these things available to more students/parents who desire an educational alternative.

The attached video features the dean of admissions at Duke university who has encouraged FREE board members to create more CA schools in North Carolina.



NC Public Charters



Applicant Evidence:



Uploaded on 3/20/2022 by PETER MORCOMBE

8.3. Goals for the Proposed Charter School

Q111.Provide specific and measurable goals for the proposed school for the first 5 years of operation outlining expectations for the proposed school's operations, academics, finance, and governance. Address how often, who, and when the information will be communicated to the governing board and other stakeholders.

NC Public Charters



A well operated school has high levels of parental satisfaction and volunteers, both of which are measureable. Teachers interviewed have expressed a desire for an environment in which they are empowered to be innovative, can teach in smaller class sizes, and have passionately involved parents, leading to happy students. Evidence based measures include teacher turnover rate, student retention and waiting lists.

Charter schools are measured through test scores, graduation rates, skills in vocational arts, and retention rates. For example we aspire to high SAT scores, >90% graduation rates, college acceptance rates etc.

Charter schools must provide their own buildings. We will start out in a rented building paid for out of operating funds. Even so our business our model is so efficient that we can generate cash reserves with as few as 150 students. The cash reserves will accumulate until there is sufficient to construct a building.

The Unity Global Academy will hold public meetings once per month to share whatever information our customers care about. We are community based and we are accountable to the community. We operate under accepted norms such as "Roberts Rules of Order" while making it easy for stakeholders to ask questions and demand answers. The school is governed by a Board, ruled by the State Board of Education and the laws of North Carolina. Our bylaws do not allow staff to be board members.

Typically our board meets formally once per month and other methods of communication include:

- Public service announcements. Local radio, cable TV and newspapers.
- Speaking at ABSS board meetings and Alamance county commissioner meetings.
- News coverage. FREE was often featured on local radio and newspapers.
- Guest columns and "letters to the editor".
- Public meetings. Our public meetings were well attended.

Q112. How will the governing board know that the proposed public charter school is working toward attaining their mission statement?



NC Public Charters



The board is responsible for measuring all aspects of school performance including operations, academics, finance and governance. The board will directly control financial audits, school inspections and customer satisfaction.

The Unity Global Academy will know it has achieved its lofty mission statement when our customer loyalty is comparable with that of the existing charter schools in Alamance county.

There are over 200 charter schools in North Carolina with ~130,000 students and these schools have waiting lists of ~80,000.

The evidence we see in Alamance county suggests that waiting lists understate the true demand for charter schools. The charter schools in Alamance county are in great demand and very few customers are leaving.

Applicant Comments:

If the Unity Global Academy meets its mission statement it will create the kind of customer loyalty that the River Mill Academy and the Clover Garden school already have. The direct evidence will be in the form of large waiting lists and a low rate of student transfers to other schools (retention rate).

Another critical measure is happy teachers. An early indicator of problems is high teacher turnover. While teachers appreciate being paid what they are worth they also appreciate being treated with respect.



NC Public Charters



9. Educational Plan

9.1. Instructional Program

Q113.Provide a detailed description of the overall instructional program of the proposed charter school, including:

- major instructional methods
- · assessment strategies, and
- explain how this instructional program and model meet the needs of the targeted student population

The Cambridge Assessment instructional method is described in the attachment. The CA has built-in assessments, and the school will also participate in standard NC required testing.

The CA is so broad and so deep that no school can offer the entire range of options.

Once this proposal is approved, the first responsibility of the school leader will be to select the options that best meet the needs of the community that the school serves.

Providing a suitable building for the school is the #1 task for the FREE board. Close behind that is selecting a principal who is capable of running a CA school.

Once the principal has been appointed he will be responsible for implementing the CA instructional methods, assessment strategies and the instructional program generally.

Our schools delegate day to day management authority to the principal by approving the school budget.

The attached file explains how built in assessmeents work up to the 10th grade.

NC Public Charters



Applicant Evidence:



Uploaded on 3/20/2022 by PETER MORCOMBE

Q114. Will the proposed charter school serve a single-sex student population	O	114.Will	the pro	posed ch	narter scho	ol serve a	single-sex	student po	opulation
--	---	----------	---------	----------	-------------	------------	------------	------------	-----------

- O Yes
- No

Q118.Curriculum and Instructional Design Describe the basic learning environment (e.g., classroom-based, independent study), including class size and structure for each grade span (i.e. elementary, middle, high) the school would ultimately serve.

The learning environment will be classroom based with three classrooms per grade, containing an average of 16-17 students each. Teachers will have agency and flexibility in the day-to-day structuring of their classes.

Until the school reaches capacity, flexibility in terms of class size will be needed.

The learning environment will be classroom based with three classrooms per grade, containing an average of 16-17 students each. Teachers will have agency and flexibility in the day-to-day structuring of their classes.

Q119.Identify how this curriculum aligns with the proposed charter school's mission, targeted student population, and North Carolina Accountability Model. Provide evidence that the chosen curriculum has been successful with the target student population, how the plan will drive academic improvement for all students, and how it has been successful in closing achievement gaps.



NC Public Charters



CA does not discriminate regarding student population; it is a truly global curriculum intended to serve every student. We offer as evidence the success of the curriculum for more than one million students in 160 countries.

The CA curriculum is so broad and deep that no single school can offer all the courses that are available. The attached "10 Reasons" document summarizes what is available and a more detailed explanation can be found in the "Becoming" document.

One of the good things about being appointed "Principal" of a FREE school is the opportunity to be creative. FREE expects the principal to select programs and courses that match the aspirations of the community served by the school. This also explains why no two FREE schools are alike.

Applicant Evidence:



Uploaded on **4/9/2022**

Uploaded on **4/9/2022**

by PETER MORCOMBE by PETER MORCOMBE

Q120.Describe the primary instructional strategies that the school will expect teachers to master and explain why these strategies will result in increased academic achievement for the targeted student population for each grade span (i.e. elementary, middle, high) the school would ultimately serve.

This would be a tough question to answer in an "Essay" format. However it is well answered in the attached video that features CA teachers and students.

Applicant Evidence:



Uploaded on **4/9/2022**

by PETER MORCOMBE

Q121.Explain how the proposed instructional plan and graduation requirements will



2022 NC CHARTER APPLICATION NC Public Charters



ensure student readiness to transition from grade to grade and to the next grade span upon program completion.

Cambridge Advanced examinations are taken in schools across 35 states and the District of Columbia. Dr. Matthew Hayes, the Deputy Superintendent of Academics for Charlotte-Mecklenburg Schools said: "Our collaboration with Cambridge International allows us to provide rigorous, internationally benchmarked coursework to our students. Our district's goal is to prepare all of our students to lead productive lives and reach their full potential in college and career. The recent decision to allow credit for Cambridge International AS- and A-Level examinations is a great step forward to give students recognition for their hard work and achievement while in high school." Each year, nearly 1 million students study in Cambridge programs worldwide, making more than 2 million exam entries. First introduced in the U.S. in 1995, the Cambridge International program has grown rapidly in popularity. Over the past decade, Cambridge Advanced exams in the U.S. have grown by over 200%. More Cambridge Advanced coursework and exams are now taken in the US than in any other country.

"The decision made by the State Board of Community Colleges increases students' access to opportunities to succeed in North Carolina institutions and their future endeavors," said Mark Cavone, Cambridge International Regional Director, North America. "The Cambridge curriculum is a flexible integrated program that challenges and engages students across achievement levels, and its assessments and supports are designed to be accessible for all students." Cambridge International AS- & A- Levels are part of an internationally benchmarked program that allows students to earn college-level credit in high school. Cambridge International uniquely provides an instructional system across four stages (Primary through Advanced) aligning rigorous curriculum, pedagogy, and assessment for all students in grades K-12. More than 800 U.S. colleges and universities, including all public North Carolina institutions, recognize Cambridge courses and examinations.

About Cambridge International

Cambridge International prepares school students for life, helping them develop an informed curiosity and a lasting passion for learning. We are part of Cambridge Assessment, a department of the University of Cambridge. Our international qualifications are recognized by the world's best universities and employers, giving students a wide range of options in their education and career. As a not-for-profit organization, we devote our resources to delivering high-quality educational programs that can unlock learners' potential.

Q122.Describe in a brief narrative how the yearly academic calendar coincides with the

NC Public Charters



tenets of the proposed mission and education plan.

Year round schedules have a very high rates of parental satisfaction, as well as better student achievement and retention of knowledge due to the lack of extended vacations.

A more structured envronment with one of consistency and positivity, for students with unsupported or unstable homes. The safety and dependability that school offers doesn't stop with the onset of summer. When schools close for the summer, achievement gaps increase and students experience a decline in academic skills and social-emotional health. Low-income students are especially prone to these negative effects ("summer slide") per the American College of Education.

In a year round school, teachers receive a year round salary.

Q123.Describe the structure of the school day and week. Include the number of instructional hours/minutes in a day for core subjects such as language arts, mathematics, science, and social studies. Note the length of the school day, including start and dismissal times. Explain why the school's daily and weekly schedule will be optimal for student learning.

We plan to use a "Year Round" schedule.

In one of our schools we started out with a conventional schedule but converted to "Year Round" when our customers and stakeholders requested it. While the Unity Global Academy will open as a "Year Round" school we want the flexibility to change the schedule if necessary.

All of the FREE schools are deservedly popular. One of the reasons for that is that the board empowers teachers by allowing them to be creative. We easily exceed the state minimum requirements for days and instructional hours/minutes and length of school day.

According to a new study of NY charter schools, "frequent teacher feedback, data-driven instruction, intensifed tutoring, increased instructional time, and high expectations can explain roughly half of the variation between more effective and less effective schools". (National Bureau of Economic Research)

It is a tremendous advantage to have one board of directors per school so that we don't fall into the trap of applying a "One Size Fits All" solutions.

Q124.Describe a typical day for a teacher and a student in the school's first year of

NC Public Charters



operation.

The first year is always difficult since it takes time to train staff and get them working as a team. In the Unity Global Academy the curriculum is highly demanding so there are very few teachers available to hire who are trained in CA. The solution is "Staff Development" programs but these inevitably take time.

While every effort is made to hire experienced and talented leaders very few of the applicants have charter school experience. It is not enough to have a strong track record running a traditional school or a private school.

For the first two FREE schools that opened 25 years ago the first year was especially challenging since we had very limited start up funds and we were inexperienced.

In our second year we set up three schools. While there were plenty of problems, the first year went much more smoothly thanks to the fact that we had more money due to our efficient business model. Also our financial management system was working smoothly (thanks to Acadia Northstar) leaving our staff free to concentrate on teaching and student services.

The main problems for the Unity Global Academy in its first year will relate to hiring the school leader and the faculty. Shortage of "Start Up" funds will not be a problem since we have already raised \$190,000 and expects to have at least \$1 million by the time the school opens.

Best of all, the new FREE board is even stronger than the old one. Three of our board members have taught in charter schools and they are passionate about the benefits for teachers, students and parents. Charter schools are less regimented than traditional schools and that has proven to be important. We even have two of the original FREE board members to make sure that our past mistakes are not repeated.

Q125.Will this proposed school include a high school?

- Yes
- O No

Applicant Comments:

We will start with grades K-8 and then roll forward a grade each year. We did this at the Clover Garden school and enjoyed great success.



2022 NC CHARTER APPLICATION NC Public Charters



Q126.**High School Graduation and Post Secondary Readiness** Describe how the proposed charter school will meet the Future-Ready Core requirements.

Cambridge students average at least 1,200 in the SATs, and the curriculum itself meets and exceeds future-ready core requirements.

We have practical experience of the CA program since the Wood charter school opened with IGCSE (International General Certificate of Education) in 1998 for grades 9 & 10 and later introduced AICE (Advanced International Certificate of Education) for grades 11 & 12. These are challenging programs with roughly two more years of course content than North Carolina's "Standard Course of Study". Challenging the students turned out to be a good strategy since the Woods charter school was ranked #1 in SAT scores out of 357 North Carolina high schools in 2002.

Today the IGCSE and the AICE are the main components of the CA program. The depth and breadth of the CA has grown over the last 20 years funded via fees paid by 10,000 schools in 160 countries. Sometimes there are "Economies of Scale" and CA is an example since the per student cost of the program is lower than it was 20 years ago, even though the content is far greater.

"Core Knowledge" is rightly popular with charter schools but it lacks the depth and breadth of CA so one is forced to find "Bolt On Goodies" such as Saxon Math or Singapore Math to compensate for its deficiences.

CA is quite different since it is too broad and deep to be fully implemented in any single school. The challenge with CA is to select the options best suited to local community needs. For example CA now includes "Vocational Options" that were not offered 20 years ago. The Unity Global Academy will ignore these in its first year since we will open as a K-8 school. Many vocational options are best suited to grade 10 or higher. Would you trust an 8th grader with kitchen machinery, high power lasers, compressed gases, a TIG welding machine or a state of the art milling machine?

In "Year 3" the Unity Global Academy will open a 10th grade. It is highly likely that we will offer vocational options at that point. FREE may be able to offer vocational options in "Year 1" by forming a partnership with the Graham High school which is already considering vocational education. The FREE board has two members with experience in vocational education related to jobs with six figure earning potential. You don't have to spend four years in a university to earn "Big Bucks".



2022 NC CHARTER APPLICATION NC Public Charters



Q127.Provide details on how the students will earn credit hours, how grade-point averages will be calculated, what information will be on transcripts, and what elective courses will be offered.

The first year we will only be a K-8 and roll forward through the school years. The credit hours, etc. are all integrated into the CA curriculum, which the principal and teachers will implement. Staff development and training will take at least two years to reach the desired level for the high school grades.

While several of our board members are professional educators they understand that the principal and teachers will have the day to day control of the CA curriculum.

FREE will hire trained professionals to fill the positions of faculty charged with day-to-day management of the school, including assessments and reporting. Elective courses will be offered based on student/parent interest matched with available resources.

Q128.Explain how the graduation requirements will ensure student readiness for college or other postsecondary opportunities (trade school, military service, or entering the workforce).



NC Public Charters



We believe that the demanding CA curriculum will drive up the SAT scores of our students. That will improve their prospects in post secondary education. The mission of the school to engage in meaningful activities with real-world applications will prepare students to pursue any post-secondary goals, including trades and immediate workforce entry. Students who enlist in the military will be well-served by the global nature of an internationally used curriculum.

The quality of the faculty is highly correlated with student success. Good teachers are the most important thing that any school can offer. This has been amply demonstrated in Finland where teachers must demonstrate exceptional skills.

Yet good teachers are not enough. The Chapel Hill Carrboro City Schools used to be #1 in North Carolina in SAT scores. In most years the school that came second scored at least 50 points lower than the Chapel Hill High School. One of the FREE board members decided to find out why the CHHS scores were so high.

Russian students take a test similar to the SAT in order to earn their high school diplomas so some Russian math papers were translated into English to find out how 12th graders at the CHHS would fare. It turned into a disaster since the top scoring students in all of North Carolina could not tackle even half of the questions. The head of the CHHS math department said that most of the Russian exam questions related to things not covered in the North Carolina "Standard Course of Study".

Even with the best available teachers students cannot learn what is not taught. That fact alone explains the stunning success of the Woods charter school in terms of SAT performance. The demanding nature of CA curriculum will ensure that the Unity Global Academy teachers will teach more and the students will learn more.

Q129.Explain what systems and structures the school will implement for students at risk of dropping out and/or not meeting the proposed graduation requirements.

NC Public Charters



Our aim is to instill a love for learning by recognizing achievement and hard work. Students who find a love for learning are unlikely to become dropouts. In the past the most common problems in US schools were running in the halls, chewing gum in class and feeble excuses for late assignments (the dog ate my homework).

According to the Dean of Admissions at Duke University, the CA curriculum teaches students to do three things: analyze, synthesize, and communicate. Therefore, students learn to do whatever it takes to succeed in their future endeavors.

The year round schedule provides a more structured envronment with one of consistency and positivity, for students with unsupported or unstable homes. The safety and dependability that school offers doesn't stop with the onset of summer. When schools close for the summer, achievement gaps increase and students experience a decline in academic skills and social-emotional health. Low-income students are especially prone to these negative effects ("summer slide") per the American College of Education. Again, this is the main reason for our year round schedule, which leads to increases in graduation and retention rates.

Q130.Attach Appendix C: 9-12 Core Content Electives Provide a visual description of what courses (both core content and electives) will be offered at the charter high school to ensure students meet the proposed charter school's graduation requirements. Please ensure the projected staff and budget aligns with the course offerings.

The Unity Global Academy will open as a K-8 school. It would be premature to make decisions about electives for grades 9-12 before the end of "Year 1".

FREE recognizes the importantance of this issue. We have already explained our approach in Q126 above. Also, please see the attachment.

Upload Required File Type: pdf, image, excel, word, text Max File Size: 30

Total Files Count: 6



NC Public Charters



Applicant Evidence:



Appendix C - 9-12 Co...

Uploaded on 3/21/2022 by PETER MORCOMBE

Q131.Attach Appendix B: Curriculum Outline per Grade Span (for each grade span the school would ultimately serve). One sample curriculum outline (in graph form) in the Appendices for one core subject (specific to the school's purpose) for each grade span the school would ultimately serve.

☑ Upload Required File Type: pdf, image, excel, word, text Max File Size: 30

Total Files Count: 5

NC Public Charters



Applicant Comments:

Please see attachment. Principal and teaching staff will choose specific course offerings, in light of community needs.

In 1998 FREE adopted IGCSE and AICE as the curriculum for the Woods Charter School. It turned out to be an inspired choice since it took only four years for that school to become #1 in SAT scores in North Carolina and to be ranked in the top #100 schools in the USA according to the US News.

Today the "Cambridge Assessment" (CA) includes IGCSE, AICE and much more. CA is now arguably the best curriculum available anywhere. It is now so broad and deep that no single school can hope to implement more than a fraction of it.

There are 213 curriculum outlines available via the CA website so FREE has uploaded just two of them. One covers core subjects (English and Mathematics) for grades K-8 and the other Math for grades 9 & 10. The curriculum outline for CA (123 MB) exceeds the "Upload Limit" for Edlusion so please download the information via this link:

https://www.cambridgeinternational.org/Images/134557-implementing-the-curriculum-with-cambridge.pdf (https://www.cambridgeinternational.org/Images/134557-implementing-the-curriculum-with-cambridge.pdf)

Since the CA may be the most challenging curriculum available today the FREE board plans to hire an outstanding school principal to make sure that it is implemented as well as possible. With this in mind we will conduct an international search, including the full re-imbursement of all relocation costs.

Applicant Evidence:



134557-implementin...

Uploaded on **5/17/2022**

by PETER MORCOMBE

Q132.Attach Appendix D: Yearly Academic Calendar (minimum of 185 instructional days or 1,025 hours)

Upload Required File Type: pdf, image, word Max File Size: 30 Total Files Count: 3



NC Public Charters



Applicant Evidence:



Uploaded on **5/16/2022** by **PETER MORCOMBE**

Q133.Attach Appendix E: Daily and Weekly Schedule Provide a sample daily and weekly schedule for each grade band (K-5, 6-8, and 9-12) the school ultimately plans to serve.

Upload Required File Type: pdf, image, excel, word, text Max File Size: 30

Total Files Count: 15

Applicant Evidence:



Uploaded on 3/21/2022 by PETER MORCOMBE

9.2. Special Populations and "At-Risk" Students

Q134.Explain how the school will identify and meet the learning needs of students who are performing below grade level and monitor their progress. Specify the programs, strategies, and supports you will provide for these students.

The board budget includes hiring of adequate levels of tutors and trained EC staff, to meet the needs of all students performing below grade level. We will hire staff with the appropriate experience, where needed.

Three of the board members have special needs children or grandchildren. We know the right questions to ask.

Q135.Describe the extent to which one or more of the founding board members has experience working with special populations (students with disabilities, students with



NC Public Charters



504 Plans, ELs, students identified as gifted, and students at risk of dropping out). If no founding board members have experience working with special populations, describe the school's pre-opening plan to prepare for special populations.

Three of the board members have children or grand-children with significant disabilities including non-verbal autistic and Asberger's syndrome. One of us has a grandchild who is devoting her life to treating autistic children like her brother. You can rest assured that we will be more diligent than most boards in our attention to "Special Populations". We find the testimony of Anita Olinga to the US congress heartbreaking. The world may forget, but we won't.

Anita Olinga was one of the founders of the Carter Community school in Durham. She is the mother of two handicapped children. She made an unsecured personal loan that ensured the survival of the Carter Community school. You don't see that kind of commitment elsewhere.

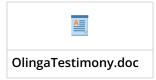
http://www.gallopingcamel.info/carter.html (http://www.gallopingcamel.info/carter.html)

The link above sheds light on how we operate and what we do. We care about communities and we serve them effectively and efficiently.

Non traditional and innovative methods of education in charter schools has shown that students with special needs do better academically as well as socially in a public charter school setting. There is a noticable gap as 43% of special education graduates from charter schools get enrolled in colleges, compared with 23% of their traditional public school counterparts. (North Central Florida Public Charter schools 2020).

Peter Drucker says that "Effectiveness" is doing the right things whereas "Efficiency" is doing things right. We put performance above noble sentiments.

Applicant Evidence:



Uploaded on **3/21/2022**

by PETER MORCOMBE

Q136.Explain how the instructional plan and curriculum will meet the needs of English Learners (EL), including the following:

NC Public Charters



- 1. Methods for identifying EL students (and avoiding misidentification).
- 2. Specific instructional programs, practices, and strategies the school will employ to ensure academic success and equitable access to the core academic program for EL students.
- 3. Plans for monitoring and evaluating the progress and success of EL students, including exiting students from EL services.
- 4. Means for providing qualified staffing for EL students.

The school will ensure that the UGA will have qualified EL specialists and comply with Standard EL requirements, to include indentifying and classifying these students according to their individual needs.

"The idea is to put really important and difficult work together with great joy in doing it" (Greg Farrell, President Emeritus, Expeditionary Learning).

Q137.Explain how the school will identify and meet the needs of gifted students, including the following:

- 1. Specific research-based instructional programs, practices, strategies, and opportunities the school will employ or provide to enhance their abilities.
- 2. Plans for monitoring and evaluating the progress and success of gifted students; and means for providing qualified staffing for gifted students.

The CA approach to "Gifted Children" and evaluating them is explained in the attachments.

Applicant Evidence:



Uploaded on 3/21/2022 Uploaded on 3/21/2022 by PETER MORCOMBE by PETER MORCOMBE

9.3. Exceptional Children

The public charter school cannot deny admission to any child eligible for special education services as identified under the federal legislation *Individuals with Disabilities Education*

NC Public Charters



Improvement Act (IDEA), IDEA regulations, and Article 9 115C of the North Carolina General Statutes, North Carolina Policies Governing Services for Children with Disabilities. **All public schools are responsible for hiring licensed and 'highly qualified' special education teachers pursuant to law.** Public schools are required to provide a full continuum of services to meet the unique needs of ALL students with disabilities.

Q138.Identification and Records Explain how you will identify students who are enrolled within the charter school that have previously been found to be eligible for special education services or are protected under Section 504 of the Rehabilitation Act.

A child with a disability is a child evaluated in accordance with the IDEA evaluation procedures as having one or more specified disabilities and who, because of disability, needs special education and related services. Students with disabilities attending charter schools and their parents retain all rights and protections under Part B of IDEA that they would have if attending other public schools. (Rights of Students with Disabilities in Public Charter Schools, USDE 2017). UGA intends to fully comply with this requirement.

FREE created the Carter Community School dedicated to serving special needs children. The "Experts" told us we were doomed to fail since the cost of serving these students was greater than the funding provided by state and federal authorities.

FREE went ahead, ignoring the experts! It turned out that they were almost right.......we would have failed but for Anita Olinga who made a personal loan so that we could keep on paying the school staff. If you are responsible for a business there is nothing more scary than the realization that you don't have the funds to meet payroll. Her faith in the school was rewarded and the school is still in existance and we were able to repay her loan within a matter of weeks.

It is very difficult to make ends meet when your main mission is to serve special needs children but FREE has proved that it is possible even in a small school (190 students) if your business model is good enough.

FREE finds inspiration in bumble bees who fly in defiance of the experts.

NC Public Charters



Q139.Provide the process for identifying students who may be eligible for special education services as identified in the federal 'Child Find' mandate. Be sure to include how student evaluations and assessments will be completed. Include how the school will avoid misidentification of special education students.

We will comply with the responsibility for identifying students with disabilities according to the 'Child Find 'mandate. This means that if school staff suspects a student of having a disability that impacts their access to education, we will request consent from the parent to initiate evaluations to determine eligibility under either section 504 or IDEA. If the student is found eligible for educational services we will proivide the support, accomodations, and/or services necessary to meet our legal obligations under either of these educational laws.

Our board members have special needs children so you can be sure we will not fail in our duty to serve them.

Q140.Provide a plan detailing how the records of students with disabilities and 504 Accommodation plans will be properly managed, including the following:

- 1. Requesting Records from previous schools
- 2. Record Confidentiality (on-site)
- 3. Record Compliance (on-site)

We are willing to comply with all of the mandates in 504 accommodation plans and the IDEA for the protection of records relating to the students with disabilities, including locked storage facilities and only authorized staff members being able to access the records etc etc.

The present board is sensitive to "Special Education Issues" as explained in earlier questions.

Q141.Exceptional Children's Programming Explain how you will meet the learning needs of students with mild, moderate, and severe disabilities in the least restrictive environment possible.



NC Public Charters



We will meet the learning needs of students with varying disabilities using a variety of approaches and techniques, some of which include self monitoring, recording, evaluating, and reinforcing established goals using strategies such as video modeling, social stories, and self management. These may improve the skills needed for students to create and maintain relationships with peers in a socially acceptable, non threatening, and friendly environment.

We will ensure that our school has competent professional staff to serve the needs of children with disabilities, according to the 504 accomodations and the IDEA. We will ensure qualified candidates for hiring in these positions that understand these special needs children, and their levels of needs . The children will be mainstreamed as appropriate for each student, and have individual instruction as professionally determined.

Q142.Describe the specific educational programs, strategies, and additional supports the school will provide to ensure a full continuum of services for students with disabilities. How will the school ensure students' access to the general education curriculum?

The CA includes specific advice for:

- visual difficulties
- · hearing or speaking difficulties
- · learning difficulties.

The documentation is extensive and highly detailed as can be appreciated by following the link below:

https://www.cambridgeenglish.org/help/special-requirements/ (https://www.cambridgeenglish.org/help/special-requirements/)

In addition, please see our detailed response to Q 141.

Q143.Describe the methods and support systems that will be in place to ensure students with disabilities receive a Free and Appropriate Public Education (FAPE).



NC Public Charters



We will be following the 504 Accommodations relating to FAPE and the IDEA guidelines for all of the methods and support systems required in these documents.

We will follow the law with enthusiasm. We will pay whatever it takes to procure outstanding special education teachers. We have shown in the past (Carter Community School) that we care about special needs children and we care about their education. A higher percentage of Special Needs students go to college from charter schools than traditional schools.

Q144.Describe how implementation of the Individualized Education Plan (IEP) will be monitored and reported to the student, parents, and relevant staff.

This depends on hiring well qualified teachers and empowering them to do their job without interference from board members. The board meets once per month but our staff need to make decisions many times each day. Teachers will have frequent meetings with parents and students and appropriate staff to inform them of progress or concerns, along the lines of the IEPs.

In our view "The Customer Is Always Right".

Q145.Describe the proposed plan for providing related services and to have qualified staffing adequate for the anticipated special needs population.

We will aim to hire the best qualified and experienced staff that we can find, as well as provide additional training opportunities as appropriate.

9.4. Student Performance Standards

Q146.Describe the student performance standards for the school as a whole.



NC Public Charters



The State mandates that we follow the academic and operational performance indicators, measures, and targets as other public schools.

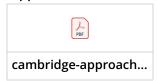
Our perfromance standards include the following elements:

- 1. Student achievement levels based on State content and performance
- 2. Student academic growth over time
- 3. Achievement gaps between major student subgroups in both student achievement levels and academic growth
- 4. Attendance
- 5. Recurrent enrollment from year to year
- 6. Post secondary readiness for high school
- 7. Financial performance and sustainablity
- 8. Compliance with all applicable laws, regulations, and the terms of the charter contract.

Q147.Explain the use of any evaluation tool or assessment that the proposed charter school will use in addition to any state or federally mandated tests. Describe how this data will be used to drive instruction and improve the curriculum over time for the benefit of students.

See the attached document.

Applicant Evidence:



Uploaded on 3/21/2022

by **PETER MORCOMBE**

Q148.Explain the policies and standards for promoting students, including students with special needs, from one grade level to the next. Discuss how and when promotion criteria will be communicated to parents and students.



NC Public Charters



The FREE schools all had "Parent-School Contracts" that formalized the obligations and rights of both parties. The UGA will do likewise with an emphasis in regular communication and transparency.

FREE is impressed by the standards developed over the last 20 years by the Clover Garden school. We plan to adopt the same standards and procedures as the starting point for the Unity Global Academy.

Sometime during "Year 1" FREE will encourage the "School Advisory Committee" to adopt the Clover Garden standards or amend them as they see fit.

Q149.Provide the public charter school's exit standards for graduating **ALL** students. These standards should set forth what students in the **last grade served** will know and be able to do. Be sure to include plans for students at risk of dropping out.

Exit standards will include State required academic competency, as well as, community service, and a science and/or vocational project.

We use discretion in individual cases where special circumstances apply or a child has a unique set of experiences or challenges that do not permit total compliance. In those circumstances teachers, families and appropriate school staff will formulate a plan on how best to move forward.

The challenging nature of the CA curriculum tends to reduce the number of drop outs. Where students are at risk of dropping out, there is no "one size fits all" plan. Instead each potential drop out is treated individually.

The students will be prepared to make decisions about their future whether college or other post secondary education or skills/vocational training. The USA needs people who can fix cars, HVAC systems and build houses, start their own businessews and become entrpreneurs.

Two of the FREE board members have been involved in "Vocational Education" programs that enable anyone with an 8th grade education to earn a six figure salary. Today these programs are mostly available via community colleges or universities. High schools could deliver the same training much earlier and at a much lower cost.



NC Public Charters



9.5. School Culture and Discipline

Q150.Describe the culture or ethos of the proposed school. Explain how it will promote a positive academic environment and reinforce student intellectual and social development.

The Alamance County school district is currently recognized as racially, culturally, and economicially diverse. Therefore we anticipate a similar diversity in the UGA. We recognize diversity as having a positive influence on our students and the community.

According to the National Charter Resource Center, all students in diverse settings benefit from cross-racial and cross-cultural understanding, breaking down stereotypes, and decreasing bias and prejudice.

The UGA school depends on local control and stability. The board will work to ensure that the staff of the school are empowered to the greatest extent possible under North Carolina laws.

The board is made up of local volunteers who are unpaid. In a very real sense they are "Amateurs". The Woods CS was run by similar amateurs, yet it performed very well in national comparisons. Stability comes from the charter which is a legal contract between the state of North Carolina and the school. The most important aspect of the charter is the curriculum,

We will encourage student participation in the governing process since it will help them discover how to influence decisions that matter to them.

Q151.Explain how you will create and implement this culture for students, teachers, administrators, and parents starting from the first day of school. Describe the plan for acculturating students who enter the school mid-year.

NC Public Charters



We plan to have an assembly area that can accommodate the entire school (students and staff). Besides providing an opportunity to share information this will be a multi-use space for meals and concerts. We expect to have state of the art stage lighting for the staging of plays.

We will be sensitive to the views expressed by students and parents relative to local customs, culture and diversity. For example, if a significant group of parents are interested in music, or Japanese, for instance, the school would hire appropriate staff.

Students entering mid year of the UGA, will undergo an initial assessment, as well as academic and cultural orientation to the school environment.

Q152.Provide a brief narrative that delineates how student conduct will be governed at the proposed charter school and how this plan aligns with the overall mission and proposed Education Plan of the charter school. Be sure to include:

- 1. Practices the school will use to promote effective discipline.
- 2. A preliminary list and definitions of the offenses which may result in suspension or expulsion of students.
- 3. An explanation of how the school will take into account the rights of students with disabilities in regard to these actions that may or must lead to suspension and expulsion.
- 4. Policies and procedures disseminating due process rights, including grievance procedures, for when a student is suspended or expelled.

The school will have a "Parent -School Contract". This document will be available at least three months before the school opens. The committee that writes it will include at least one board member and the principal. We will abide by the State lawful code of conduct.

The Clover Garden school policies and procedures have been refined over the last 20 years and we propose to use their manuals until the UGA committee recommends changes.

9.6. Certify

Q153. This subsection is entirely original and has not been copied, pasted, or otherwise reproduced from any other application.

Yes



NC Public Charters



No

Q154.Explanation (optional):

As stated earlier some parts of this proposal are taken from charters written by one of our board members, specifically the Clover Garden School and the Woods Charter School.



NC Public Charters



10. Governance and Capacity

10.1. School Governing Body

Q155.Organization Street Address (if you have one)

• On the Organization Information page, you already provided the mailing address.

Financial Reform For Excellence in Education

474 Thompson Rd

Graham, NC 27253

Applicant Evidence:



INFO-PHM2.docx

Uploaded on **3/21/2022**

by **PETER MORCOMBE**

10.2. Governance

The private nonprofit corporation or municipality is the legal entity that has responsibility for all aspects of the proposed charter school. Its members should reflect the ability to operate a charter school from both business and education perspectives.

Q156.Using the attached resource as a template, please complete the table depicting the initial members of the nonprofit organization.

Upload Required File Type: excel Max File Size: 30 Total Files Count: 3



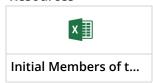
NC Public Charters



Applicant Comments:

FREE was founded in 1996 with four board members. Two of the founder members remain on the board today.

Resources



Applicant Evidence:



Uploaded on **4/9/2022**

by **PETER MORCOMBE**

Q157.Describe the governance structure of the proposed charter school, including the governing board's functions, primary duties, roles, and responsibilities as it relates to overseeing the charter school. Include how the board will recruit, hire, and supervise the lead administrator.

NC Public Charters



FINANCIAL REFORM FOR EXCELLENCE IN EDUCATION (aka FREE) exists to set up and operate small charter schools in North Carolina. Now that the "Cap" has been removed, FREE wants to resume operations. We have a business model that makes small schools viable as it is more efficient than models involving EMOs.

EMOs typically charge 10-25% of total ADM funding for their services whereas FREE costs only 3% of ADM funds on average. Since FREE has no employees you may wonder what the 3% is spent on. The answer is shown in the attached organization chart. FREE has direct control of "Curriculum", "Finance" and "Legal". This means that these functions report directly to the board so the costs are not under control of the Chief Executive Officer (aka the "Principal" or "Leader"). So why is that important?

Harold Geneen was the head of the ITT corporation with 300,000 employees and hundreds of CEOs. Geneen noticed that financial disasters kept occurring because CEOs were able to hide problems until their companies were near collapse, so he developed the "No Surprises" approach that depends on finance functions being separated from day to day management. The CEOs are free to make decisions but they can not hide the financial consequences of their actions since the accountants are not subordinate to them.

Accountants measure financial performance so these functions must not be controlled by the people who are being measured. The concept has general applications as explained in "Managing" by Geneen and Moscow.

"Curriculum" includes the cost of annual school inspections by CA experts who grade schools on dozens of metrics. As with financial metrics it is important that the board controls this function rather than the CEO. The hiring of lawyers and auditors is also reserved to the board.

The FREE board empowers the principal by approving his/her budget amounting to roughly 97% of the school income. The organization chart shows a School Advisory Committee (SAC). As the title suggests this body advises the principal.

Hiring principals is a daunting task. As mentioned earlier FREE hired 13 principals for six schools. One school failed (the Village Charter School) owing to unresolved school leadership issues. FREE has nothing to be proud of when it comes to hiring principals. That said we have "Hands On" experience that will help us do better in the future.

We will look for principals who have several years of experience running CA schools. Since there are 10,000 CA schools around the world there must be some outstanding principals who would like to



NC Public Charters



relocate to the USA. Since FREE has plenty of "Start Up" funds we may decide to pay international relocation costs for outstanding candidates.

Applicant Evidence:



ORGANIZATION.pdf

Uploaded on **3/22/2022**

by **PETER MORCOMBE**

Q158.Describe the size, current and desired composition, powers, and duties of the governing board.



NC Public Charters



The board has four members.

Will Bosley is our chairperson. He has been Technical Director, Communication at UNC (Chapel Hill) since 2019.

Louise Cole is our deputy chairperson. She is a founder member of FREE. She is the realtor who found buildings for six FREE schools.

Cheryl Hodge is our treasurer. She is a senior accountant at an insurance company.

Peter Morcombe is our secretary. He is a founder member of FREE. He retired from the Duke university physics department in 2002.

The FREE board hires the school principal. Hiring and firing other staff requires board approval.

The FREE board controls Curriculum, Finance and Legal issues.

The FREE board empowers the principal by aproving his budget. Line item variances greater than 10% require board approval. FREE employees cannot be board members.

FREE has eliminated the profit motive. All too often supposedly "Non-Profit" charter schools are in reality operated by "For Profit" EMOS. This violates the spirit of North Carolina's charter school laws even if it does not violate the letter.

FREE has proven that volunteers can operate charter schools without the need to hire "Experts" working for EMOs. We perform the functions of EMOs at a fraction of the cost.

Q159.Describe the founding board's individual and collective qualifications for implementing the school design successfully, including capacity in such areas as school leadership, administration, and governance; curriculum, instruction, and assessment; performance management; and parent/community engagement.



NC Public Charters



FREE was founded by four people in 1996. Two remain on the board, namely Louise Cole and Peter Morcombe.

The most difficult problem relating to the creation of most charter schools is securing a building. Louise secured rented buildings for the first six FREE schools and she managed the permitting process to ensure that certificates of occupancy were obtained before the first day of school. What makes her achievement truly remarkable is that all six buildings were secured within five months of charter approval. The most complex project was the Carter Community School in an inner city neighborhood:

http://www.gallopingcamel.info/carter.html

While the Clover Garden and Carter schools opened in buildings that were designed to be schools, the other four buildings were less suited to purpose so Louise started a construction program. The attached photograph shows Otho Tucker, the head of the DPI's Office of Charter Schools, at the ribbon cutting for the new Orange CS building in August 2000. The ground breaking ceremony was held in February of the same year so that pretty school took only six months to build! The down payment came from FREE's operating surplus but most of the money came via a bank loan guaranteed by the US Department of Agriculture.

Peter Morcombe's career was in high tech project management. His final project was building the Duke university HIGS (High Intensity Gamma Source). This machine was the world's brightest gamma ray source in 1995 as it is to this day. Peter's experience in operations management enabled him to create an unusually efficient model for managing schools. The model ensures that even schools with 150 students are financially viable. Larger schools generate strong positive cash flow.

Rapid business growth normally demands the injection of large amounts of capital. FREE is a non-profit with no shareholders or wealthy donors to provide capital. It is the efficiency of FREE's business model that enables it to finance rapid growth out of operating cash flow. FREE opened two schools in its first year and three in its second year. But for the 100 school "Cap" we could have created several schools each year for as long as necessary to satisfy the demand for charter schools.

The founder members are not certified teachers so we are happy that one of the new board members is a trained educator. The other new member is a professional finance manager.

The FREE board has three members who have "Special Needs" children or grandchildren.



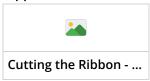
NC Public Charters



Three FREE board members have taught in K-12 schools.

Before the school opens the FREE board plans to invite additional board members with business experience.

Applicant Evidence:



Uploaded on 3/22/2022 by PETER MORCOMBE

Q160.Explain how this governance structure and composition will help ensure that

- 1. The school will be an educational and operational success;
- 2. The board will evaluate the success of the school and school leader; and
- 3. There will be active and effective representation of key stakeholders, including parents.
 - **1. Success.** We will stick with the business model that worked so well in our first six schools.
 - **2. Evaluation.** The most important measure of success is 100% "Happy Customers". This is a hard goal to achieve but we have done it before. We are gratified that the existing FREE schools in Alamance county have 10 applicants for every vacancy.
 - **3. Participation.** FREE will continue to encourage parental involvement and by our actions make it clear that the board is answerable to the local community before all others.
 - **4. Leadership.** FREE will recruit an able leader and we will commission Cambridge Assessment to evaluate the school and rate it's progress annually. We have already raised sufficient start up funds to enable us to hire the leader as soon as our application is approved.

Q161.Explain the procedure by which the founding board members have been recruited and selected. If a position is vacant, how and on what timeline will new members be recruited and added to the board?



NC Public Charters



The board includes Louise Cole and Peter Morcombe, two of the four founders of FREE. After a long absence in Florida, Peter returned to North Carolina and started looking for people with a desire to set up a string of charter schools based on a challenging curriculum such as the Cambridge Assessmenmt (CA).

The founders experience is valuable since we remember our past mistakes. As explained elsewhere, once the Unity Global Academy is viable we will permit it to become independent and start its own non profit organization, as happened with the first six FREE schools.

Once a school is up and running it is easy to recruit new board members and the FREE founders will work with the stakeholders to determine the make up of the new independent board and the process for selecting new board members. The key is to remain flexible and open to the views of students and parents.

No two FREE schools are alike since we aim to meet the expectations of the communities we serve rather than impose a "One Size Fits All" solution.

Q162.Describe the group's ties to and/or knowledge of the target community.

It would be misleading to call ourselves a "Group". We are better described as individuals united by a passion for providing more choices for educating our children and grand children. We are trying to help our own offspring while improving opportunities for our neighbors at the same time. A win-win situation.

Since there are already two FREE schools in Alamance county we wrote to all the mayors in the county offering to locate the Unity Global Academy in their jurisdictions. The most favorable response came from mayor Talley so that is why the school will be located in Graham.

We have a good relationship with the Alamance county commissioners, and have received a letter of support from them..

FREE wants to develop a relationship with the Alamance Burlington School System that operates 37 schools with 22,000 students in Alamance county.



NC Public Charters



Applicant Evidence:



Uploaded on 3/22/2022 Uploaded on 4/9/2022 by PETER MORCOMBE by PETER MORCOMBE

Q163.Outline the strategic board calendar detailing how often the board will meet according to the bylaws established.

The board will meet have scheduled meetings once per month, year round. Past experience leads us to expect some unscheduled "Emergency" meetings from time to time.

Q164.What kinds of orientation or training will new board members receive, and what kinds of ongoing professional development will existing board members receive? The plan for training and development should include a timetable, specific topics to be addressed, and requirements for participation.

Today the board is an un-elected assembly. Over time we expect to move towards a board that is elected rather than appointed. Once the first school is operating we will arrange for the remaining seats (maximum ~14) to be filled via elections and the sitting board members will be responsible for training these new board members so that they understand their duties under North Carolina law and their obligations under the school's charter. The board will reserve the right to unseat any board member who is not willing to follow the law or the school charter as written.

Q165.Describe the board's ethical standards and procedures for identifying and addressing conflicts of interest. Identify any existing relationships that could pose actual or perceived conflicts if the application is approved; discuss specific steps that the board will take to avoid any actual conflicts and to mitigate perceived conflicts.



NC Public Charters



We plan to avoid conflicts of interest as we have always done. Some safeguards are built into our bylaws. For example, our board members are not allowed to be employees. Our board members do not receive remuneration or expenses except in special situations requiring case by case board approval.

We have very strict financial controls. For example, no board member or employee is allowed to write a check. The FREE business model is unusually efficient and it is designed to make fraud or larceny unlikely. All checks are made by a bonded disbursment agent. As far as we know none of the existing schools have departed from the financial controls that FREE designed even though FREE no longer has any influence on their decisions.

Q166.Explain the decision-making processes the board will use to develop school policies.

NC Public Charters



All decisions affecting the school are controlled by the board. The board approves all hiring and firing but may delegate some of its powers in this regard to the principal.

The board is responsible for all financial matters but delegates power to the school staff by approving a budget. The principal has some discretion but must seek board approval for line item variances above 10%. Even if the variance is "Favorable" board approval is required. For example, saving money by cutting back spending on "Staff Development" is a not a virtue.

Many charter schools are run by people who hire EMOs that costs between 10 and 25% of the school's income. FREE won't hire an EMO which is why our model works even for schools with less than 200 students. FREE was designed to operate schools small schools and that demands frugality and efficiency.

The FREE model is rigid in financial matters but flexible in everything else. The result is a dramatic improvement in efficiency and staff performance. FREE schools are roughly 12% more efficient than private schools and much more efficient than traditional K-12 schools.

So what evidence is there to support such wild claims? We don't pay taxes and we don't have shareholders and that explains why we outperform private schools. We agree with the teachers unions when they say that schools should not be driven by the profit motive.

Traditional K-12 schools have the same advantages that FREE schools have since they don't have shareholders expecting dividends and they don't pay taxes. Traditional K-12 schools do not have to pay for their buildings while charter schools have to allocate about 15% of their operating income to pay for buildings.

Even after absorbing the 15% cost of buildings the FREE schools typically transfer 20% of their income to reserves in any given year. These cash reserves explain why FREE was able to create three new schools in its second year of operation even though we had no access to shareholder or donor capital.

FREE schools can operate profitably with only 150 students. In its first year the Woods Charter School had only 120 students yet it survived and generated reserves that enabled it to construct a building for ~500 students. This school has a huge waiting list thanks to the academic performance of its students. The Woods CS ranks in the top five of North Carolina high schools in SAT performance year after year.

The efficiency of FREE's business model is based on minimizing overhead by preferring the

NC Public Charters



"Hollywood Model" to the "Detroit Model". If we can't get something done by volunteers we hire professionals to perform specific tasks under fixed price contracts. We have administrators but most of them are unpaid volunteers. We prefer the 1099-MISC to the W-2 when it comes to administrative work

Q167.Describe any advisory bodies, councils, or associations listed in the organization chart or to be formed, including the roles and duties of that body, and the reporting structure as it relates to the school's governing body and leadership.

Advisory bodies and committees will be established as necessary. This school will have a School Advisory Committee to make recommendations for board action. This is shown on the organization chart. We hire professional staff only when needed, and under contract.

Q168.Discuss the school's grievance process for parents and staff members.

The school will develop grievance procedures as part of the "Parent-School Contract". Our starting point will be the procedures refined by the Clover Garden school over the past 20 years.

Q169.Attach Appendix G Organizational Chart

• A well-defined organizational chart showing the relationship of the Board of Directors to the parents and staff of the proposed charter school. This chart should also include lines of authority to and from any outside entity that will play a role in managing or supporting the charter school (such as educational service providers, advisory bodies, or parent/teacher councils).

✓ Upload Required File Type: pdf, image, excel, word, text Max File Size: 30
Total Files Count: 5

NC Public Charters



Applicant Comments:

Parents can be board members but staff cannot. Staff who attend board meetings are in an advisory capacity only.

Experience suggests that the bulk of the SAC (School Advisory Committee) will be parents but participation by staff and students will be encouraged. As it's name implies, the SAC is "Advisory" meaning it has no executive power but it is likely to have influence on important issues such as dress code, food service etc.

It also provides a vital safety valve for people who feel their voices are not being heard by the staff at the school. The FREE board loves SACs since many issues that would have been raised at FREE board meetings get resolved via the SAC.

FREE's business model is unmatched for efficiency because it:

- 1. Does not employ EMOs
- 2. Maximizes volunteerism
- 3. Has no administrative staff or other employees above the principal
- 4. Does not pay board members
- 5. Uses the "Hollywood Model" for hiring experts as needed (accountants, school inspectors, auditors etc.)
- 6. Does not pay dividends since it has no shareholders
- 7. Does not pay taxes since it is a 501(c)(3)

For these reasons FREE has demonstrated unmatched efficiency in managing small schools. The "Break Even" is under 150 students. The Orange CS opened with 168 students in a rented building. The average class size was 14 yet three years later it was able to make the down payment to construct a building for 190 students.

FREE believes that small schools are better schools. We started out with the idea that none of our schools would have more than 300 students. We regret that most of our schools are much larger than that. The River Mill Academy has 915 students and the Clover Garden school is about to expand to 955 students. Both of these schools are in Alamance county and we believe that the community would be better served by six 300 student schools than two 900 student behemoths. FREE



NC Public Charters



hopes to persuade the Alamance Burlington School System to work with us to establish at least ten small charter schools in the county.

FREE's model creates a strong positive cash flow. So what to do with that surplus?

Since FREE opens its schools in rented buildings the first priority for the surplus cash is to buy the building, as in the case of the Clover Garden school. We renamed the gymnasium in honor of the owner (Mr. A.H. Patterson) since he gave us a "Sweetheart" deal. If a building does not work well as a school or we can't buy it then our surpluses are used to construct new buildings as in the case of the Orange Charter School.

Once the building issues have been resolved the cash surpluses keep on coming so what next? That is where the SAC comes into its own. They know the local community better than the FREE board so we listen carefully to their ideas. Often rewarding the staff is recommended but it is truly amazing what SACs can come up with when they have some cash at their disposal. For example the Orange Charter School took its orchestra on a major trip. Projects like that are well received by parents and may be a factor in the growth of the school. The enrollment has grown to 822 students on a large campus outside of Hillsborough.

- FREE will buy our curriculum and staff development services from "Cambridge Assessment".
- FREE will hire contractors to disburse funds, prepare management accounts, and perform audits.

This arrangement allows the principal and teachers to concentrate on teaching the challenging CA courses.

Applicant Evidence:



ORGANIZATION.pdf

Uploaded on **3/23/2022**

by PETER MORCOMBE

Q170.Attach Appendix H Charter School Board Member Information Form and Resume

 A one-page resume from each founding board member and responses to the questions found on the Charter School Board Member Form



NC Public Charters

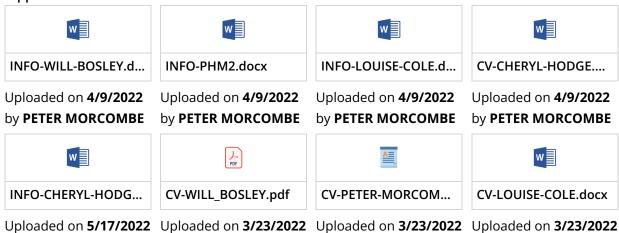


Upload Required File Type: pdf, excel, word Max File Size: 30 Total Files Count: 50

Resources



Applicant Evidence:



by **PETER MORCOMBE**

Q171.Attach Appendix I

by **PETER MORCOMBE**

1. Charter School Board Member Background Certification Statement and

by **PETER MORCOMBE**

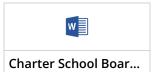
2. Completed Background Check

for Each Board Member

Upload Required File Type: pdf, image, excel, word, text Max File Size: 30

Total Files Count: 50

Resources



by **PETER MORCOMBE**



NC Public Charters



Applicant Evidence:



Q172.Attach Appendix J Proposed By-Laws of the Nonprofit Organization or Municipality The proposed by-laws, which must include a Conflict of Interest Policy for board members and a stated commitment to the NC Open Meetings Law.

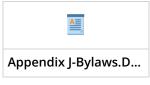
Upload Required File Type: pdf, image, excel, word, text Max File Size: 30

Total Files Count: 3

Applicant Comments:

FREE set up six charter schools while operating under these bylaws. However they were last updated almost 20 years ago so the board will update them as directed by the NC State Board of Education. FREE will comply with all laws and regulations whether they be federal, state or local.

Applicant Evidence:



Uploaded on 3/24/2022 by PETER MORCOMBE

Q173.Attach Appendix K Articles of Incorporation or Municipal Charter

• If the applicant is a non-profit board of directors, attach a copy of the articles of



NC Public Charters



incorporation from the NC Department of the Secretary of State.

- If the applicant is a municipality, attach a copy of the municipal charter.
 - ☑ Upload Required File Type: pdf, image, excel, word, text Max File Size: 30

Total Files Count: 5

Applicant Comments:

Once the Unity Global Academy is viable FREE will set up a new 501(c)(3) with an independent board of directors to take over control of the school. FREE board members who join the new board must first resign from the FREE board.

We have already done this six times. There are no FREE board members who sit on the boards of any of the schools that FREE has set up. FREE won't allow overlapping board memberships since that could lead to conflicts of interest. Relationships between FREE and the schools it sets up are truly "Arms Length".

FREE plans to operate the Unity Global Academy until is strong enough to be become independent by creating its own 501(c)(3) corporation. FREE has already created and operated six charter schools in North Carolina. Today they are all independent of FREE.

Applicant Evidence:



Uploaded on **4/10/2022** by **PETER MORCOMBE**

10.3. Staffing Plans, Hiring, and Management

Q174.Projected Staff Complete the staffing chart below outlining your staffing projections. Adjust or add functions and titles as needed to reflect variations in school models. Be mindful that your predicted administration and staff match the projected enrollment noted in Section I, course offerings, and align with the proposed budget.

Upload Required File Type: excel Max File Size: 30 Total Files Count: 10

NC Public Charters



Applicant Comments:

The staffing numbers in "STAFF.xsls" are consistent with the budget but they don't cover the staff hired prior to the school opening (Year 0).

Since North Carolina neglected to provide start up funds FREE used to be dependent on grants of \$56,000 to \$100,000 per school that were received from the federal government several months prior to the first day of school.

Since federal start up grants can no longer be relied on FREE has created a fund to cover school start up costs and to form the base of an operating reserve. Over \$160,000 has been collected to date. The fund target is \$2.2 million on the first day of school. FREE builds public schools with private money. More on that later.

FREE has chosen to use the Cambridge Assessment and that determines most of what will be taught. However CA includes an exceptionally broad spectrum of electives. Will the school teach students to speak Japanese as the Village charter school did? Will the school have a fulltime music teacher as the Orange charter school had? Will the school make exceptional children a priority as the Carter community school does?

Some of the FREE board members have exciting ideas about the performing arts, vocational education and environmental studies. Will the school leader and stakeholders support any of those things?

While FREE's budgets have always worked in the past we recognize that the choice of electives has a significant impact on staffing and budgets. At this moment we can only guess at what electives our customers will support. The existence of a significant operating reserve on the first day of school will enable us to offer electives that few schools can afford.

Resources





2022 NC CHARTER APPLICATION NC Public Charters



Applicant Evidence:



Uploaded on 3/24/2022 by PETER MORCOMBE

Q175.**Staffing Plans, Hiring, and Management** Explain the board's strategy for recruiting and retaining high-performing teachers.

Charter schools can pay teachers according to merit rather than according to age. We can pay young teachers as much as older teachers. We can pay according to talent, ability and results. This is a huge advantage that contributes mightily to both the efficiency and the effectiveness of FREE schools.

While recruiting teachers may depend on competitive salaries, retaining them depends more on freedom and respect than on salary. The leadership of the Unity Global Academy (Board, principal and stakeholders) will tell the teachers what to teach while giving them freedom to be creative. Our lack of administrators greatly reduces the stress on teachers.

On one occasion the FREE board cut staff pay at one of our schools by 25% but nobody quit. The staff responded in the best possible way knowing that the survival of the school was in the balance. A year later the FREE board was able to pay a bonus that more than compensated for the pay cut. That school survived to become #1 in North Carolina's SAT rankings and #25 in the US News national rankings.

https://www.woodscharter.org/userfiles/2/my%20files/wcs%20profile%202021-22.pdf?id=3593 (https://www.woodscharter.org/userfiles/2/my%20files/wcs%20profile%202021-22.pdf?id=3593)

A graduation rate of 100% with 91% of students accepted by universities! How many schools ever did that? FREE cut the Woods school loose in 2004 but the performance remains outstanding! A FREE board member was invited to meet with the Woods CS faculty recently and was moved to tears. The Woods teachers are motivated by the opportunity to change lives......an example to us all.



2022 NC CHARTER APPLICATION NC Public Charters



Applicant Evidence:



Uploaded on 3/24/2022 by PETER MORCOMBE

Q176.If already identified, describe the principal/head of school candidate and explain why this individual is well-qualified to lead the proposed school in achieving its mission. Provide specific evidence that demonstrates the capacity to design, launch, and manage a high-performing charter school. If the proposed leader has never run a school, describe any leadership training programs that (s)he has completed or is currently participating in. If no candidate has been identified, provide the job description or qualifications, and discuss the timeline, criteria, and recruiting/selection process for hiring the school leader.

It is critical to the success of the school to have strong leadership. Given the breadth and depth of the CA curriculum, leaders need to understand how to implement it. Fortunately the board can be guided by the attached document. The board has not identified a principal at this time.

FREE has opened six schools within five months of charter approval. Consequently we don't have time for training anyone. We must find a leader who has already proven his/her ability to run a CA school.

When this charter application is approved FREE will contact the Cambridge Assessment HR experts for help in recruiting a principal. Since there are very few CA schools in the USA FREE will conduct an international search as we already have the funds to cover relocation expenses. One of our board members has experience in "Technology Transfer" involving the relocation of hundreds of professional staff both domestically and internationally. He tells us that it is vital to interview the leader's spouse since relocation seldom works unless both husband and wife are sold on the idea.

Since there are already 10,000 CA schools in 160 countries we are confident that we will find several excellent candidates.



NC Public Charters



Applicant Evidence:



Uploaded on **3/24/2022**

by PETER MORCOMBE

Q177.Attach in Appendix O the School Leader's Resume If the school leader has been identified, include the school leader's one-page resume in Appendix O.

Applicant Comments:

No school leader has been identified but will be the first thing we do after charter approval.

Applicant Evidence:



Uploaded on **5/17/2022**

by **PETER MORCOMBE**

Q178.Provide a description of the relationship that will exist between the charter school employees and the school's board of directors.

Ideally, all operational decisions will be made at site level. It is intended that each school be run by the principal and staff members as delegated by the principal.

The organizational chart shows that the SAC is there in an advisory capacity to the principal, and therefore can help the principal and the staff.

FREE is inclined to fund most initiatives that SACs put forward. FREE helps the SAC and the SAC helps FREE.

Q179.Outline the board's procedures for hiring and dismissing school personnel, including conducting criminal background checks.

NC Public Charters



The FREE board will adopt the HR manual that is in use at the Clover Garden School to address these issues, and adapted according to the advice of the SAC and the staff.

Q180.Outline the school's proposed salary range and employment benefits for all levels of employment.

Principal: \$75,000 to \$105,000

Assistant principal \$55,000 to \$75,000

Teachers: \$40,000 to \$65,000

Q181.Provide the procedures for handling employee grievances and/or termination.

The FREE board will adopt the adopt the HR manual that is in use at the Clover Garden School.

The UGA SAC will be invited to make changes as necessary. The FREE board does not expect that will amount to much since both schools serve the same community. The Unity Global Academy will be within 13 miles of the Clover Garden school and within five miles of the River Mill Academy. A compact cluster of FREE schools!

Q182.Identify any positions that will have dual responsibilities and the funding source for each position.

Not applicable.

Q183.Describe the plans to have qualified staffing adequate for the anticipated special needs population and means for providing qualified staffing for EL and gifted students.

Three of the four FREE board members have "Special Needs" children or grandchildren. We believe that our staffing plan provides for EL, special needs, and gifted students, as previously described. Since our students will be selected by lottery the actual numbers could be different from the assumptions in our budget but it won't matter since we expect to have a substantial cash reserve.

Q184.Provide a narrative detailing the roles and responsibilities, qualifications, and appropriate licenses that each position must have to be hired by the school's board of directors and effectively perform the job function(s).



NC Public Charters



The board will expect the principal to ensure that staff are hired in accordance with the laws of North Carolina relating to K-12 schools. We are appreciative that the NC legislature has granted charter schools the power to hire a few non-certified teachers.

10.4. Staff Evaluations and Professional Development

Q185.Identify the positions responsible for maintaining teacher license requirements and professional development.

The board expects the principal to ensure teachers receive appropriate training. Once per year the board will arrange for a detailed review of the school by a CA expert who will be tasked with reporting on deficiencies in staff development as well as many other issues.

Q186.Provide a detailed plan noting how the school will mentor, retain and evaluate staff in a format that matches the school's mission and educational program. The plan should also describe how the school will meet the teacher certification and licensure requirements for teachers as prescribed by state and federal law. Be sure this overview matches with the projected staff and funding of the proposed budget section.

The board plans to use CA consultants to evaluate the school and identify any licensure or certification issues.

The first six FREE schools opened within five months of charter approval. In those days charter schools were new and exciting so it was relatively easy to find staff. Today the excitement is over but nearby charter schools such as the River Mill, Clover Garden and Hawbridge schools have an excellent reputation among teachers as well as parents and that will rub off on the Unity Global Academy.

FREE proposes to hire the principal so that he/she will have six months to develop and implement a recruitment plan. Happily FREE has already secured funding to cover the early hiring of the principal and to pay for support from CA experts.

Q187.Describe the core components of the professional development plan and how these components will support the effective implementation of the educational program. Describe the extent to which professional development will be conducted internally or externally and will be individualized or uniform.



NC Public Charters



Given the challenging nature of the CA curriculum, professional development will take time and the board will be guided by CA consultants. Since there won't be time to train a school leader FREE, will hire someone who is already running a CA school. Fortunately there are already 10,000 CA schools.

Q188.Provide a schedule and explanation of professional development that will take place prior to the school opening. Explain what will be covered during this induction period and how teachers will be prepared to deliver any unique or particularly challenging aspects of the curriculum and instructional methods.

FREE will hire CA trainers months before the school opens for students. We hope to synchronize our training schedules with CMS (Charlotte Mecklenburg Schools) since they have been using the Cambridge curriculum since 2015.

Q189.Describe the expected number of days/hours for professional development throughout the school year, and explain how the school's calendar, daily schedule, and staffing structure accommodate this plan.

The board has budgeted \$2,500 /teacher/year for "Staff Development", which is more than than twice the spending in most K-12 schools. However that may not be enough in the first two years so FREE has set an ambitious goal for fund raising.

While the FREE board has experience with an early version of the CA curriculum we will need to hire experienced people who have familiarity with the present version. It makes no sense to put such a plan together until we have hired our staff and determined what training each of them needs.

The FREE board will keep building our start up funds for staff training and other problems that may not be adequately covered in the budget.

In the earlier FREE schools, the first operating funds arrived after the 20th day of school so we will ensure that we have enough "Up Front" funding to cover the first month of "Year 1" as well as the "Year 0" spending.

10.5. Marketing, Recruitment, and Enrollment

Reaching the full capacity for enrollment will be critical to obtaining the necessary financial



NC Public Charters



resources to keep your school viable and operating efficiently. In addition, it is required by law that charter schools provide equal access to all students. Read the charter school state statute regarding admissions 115C-218.45 carefully.

Q190.Marketing Plan Marketing to potential students and parents is vital to the survival of a charter school. Provide a plan indicating how the school will market to potential students and parents in order to reasonably reflect the racial/ethnic and demographic composition of the district in which the charter school will be located or of the special population the school seeks to serve: (G.S.115C-218.45(e)).



NC Public Charters



The FREE Board uses several different methods to make our plans known to the general public. Most of our publicity has been provided at no cost. Our public meetings are often "standing room only". We have an interesting story to tell as our schools are doing well and we have many happy parents, students, teachers and staff. Our ability to get the message out has been a major factor in our rapid growth. Here are some of the things that are being done to promote the Unity Global Academy:

Website. The Unity Global Academy has a website with an on-line application form.

News coverage. Local radio (WBAG), cable TV and newspapers. The Alamance News has taken an interest in the UGA.

https://alamancenews.com/countys-fifth-charter-school-could-open-by-2023/ (https://alamancenews.com/countys-fifth-charter-school-could-open-by-2023/)

Public meetings. We attend ABSS board meetings and Alamance county commissioner meetings.

https://alamancenews.com/commissioners-lashey-vs-thompson-over-charter-schools-vs-other-public-schools/ (https://alamancenews.com/commissioners-lashey-vs-thompson-over-charter-schools-vs-other-public-schools/)

Fund raising. FREE has already raised about \$190,000 from local sources. Our target is \$2.2 million by August 2023.

The attached .mp4 video presentation was made in October 2021. FREE has already saved Alamance county residents \$30 million by building two schools with a capacity of over 900 students each using private funds and we are offering to do it again. In contrast the new 1,000 student school that is under construction in Alamance county will cost a lot.

The attached presentation (PRES58.docx) was made in March 2022 and it generated an unexpected amount of FREE publicity, most of it positive.

FREE has saved the Orange, Chatham and Durham counties at least \$60 million in construction costs by setting up the Orange, Woods and Carter schools using money that came from private sources. FREE builds public schools with private money and we do it fast. The first six schools opened five months after their charters were approved.



NC Public Charters



Applicant Evidence:



Uploaded on 3/25/2022 Uploaded on 3/25/2022 by PETER MORCOMBE by PETER MORCOMBE

Q191.Describe how parents and other members of the community will be informed about the school.

In the marketing plan above several ways to inform the public were mentioned but there is something even more powerful going on and it revolves around the peer to peer communication about our local charter schools (aka the jungle telegraph). Each year in February the lotteries are held for vacant school places. Even though the odds are low hundreds of parents attend the lotteries.

Most of the first six FREE schools needed to run a student lottery in their first year since we had more applicants than places. That was remarkable for an organization with no track record or reputation.

Today, things are much different since FREE has a track record, especially in Alamance county. The first two FREE schools in Alamance county (River Mill Academy and Clover Garden School) are deservedly popular. Both schools will soon have over 900 students each but it is not nearly enough to satisfy the need.. Both schools recently held a lottery for August 2022 places. When the dust settled there were about 1,000 names on their waiting lists.

The Unity Global Academy with its 450 places is too little and too late to satisfy the pent up demand.

Q192.Describe your plan to recruit students during the planning year, including the strategies, activities, events, and responsible parties. Include a timeline and plan for student recruitment/engagement and enrollment, with benchmarks that will indicate and demonstrate suitable recruitment and enrollment practices over time.

NC Public Charters



Most of the FREE schools were "Sold Out" after the third public meeting. It will be the same twenty years later. The Unity Global Academy will have little impact on any of the existing charter schools, other than causing a slight dip in their waiting lists.

In Alamance county recruitment is easy......the real problem here is satisfying the demand.

Q193.Describe how students will be given an equal opportunity to attend the school. Specifically, describe any plans for outreach to: families in poverty, academically low-achieving students, students with disabilities, English learners, and other students atrisk of academic failure. If your school has a specific area of focus, describe the plan to market that focus.

FREE does not discriminate since that is illegal. We will treat everyone the same regardless of socioeconomic status, race, creed, gender, or sexual orientation. We will make sure the school is very well publicized in all communities and anticipate the make up of the school to be reflective of the diversity of the ABSS community.

No two FREE schools are alike since our goal is to respond to the needs of the community that the school serves. Thus we have inner city schools like the Carter CS and rural schools like the Woods CS that have very little in common other than a highly efficient business model that enables these schools to generate "reserves" every single year.

Anita Olinga was one of the founders of the Carter CS. She has three "Special Education" children. You can get a glimpse of what the school meant to her by reading the attached testimony to the US Congress.

Applicant Evidence:



OlingaTestimony.doc

Uploaded on **3/25/2022**

by PETER MORCOMBE

Q194.What established community organizations would you target for marketing and recruitment?



NC Public Charters



In some of the earlier questions there are examples of FREE Board members communicating with the general public. Most of our publicity has been provided at no cost. Our ability to get the message out has been a major factor in our success.

In the past FREE received amazing support in Durham from the Durham Public Schools, Duke university and the North Carolina School of Science & Mathematics. At one time FREE was naive enough to believe that no political party would be against school choice but reality hit us like a 4 by 2.

Today we will work with anyone who will work with us, Democrats, Republicans or Independents. We still believe that politics and the profit motive have no place on K-12 education.

Our non-partisan approach is off to a good start but we have a long way to go. Here is a list of the people and bodies that we want to work with. If we fail to get the support of some of them we will keep on trying no matter how hostile the response may be.

NC senator, Amy Galey.

NC representatives, Dennis Riddell and Ricky Hurtado

The Alamance County Commissioners

The ABSS school board and the ABSS administration

Elon college, High Point university, UNC Chapel Hill

The Alamance Community College

10.6. Parent and Community Involvement

Q195.Describe how you will communicate with and engage parents and community members from the time that the school is approved through opening.



NC Public Charters



All the FREE schools have engaged parents and community members. There is something about locally controlled schools that brings out the best in people.

Once the school is approved we will start by contacting everyone in the community, through newspaper, radio, internet, and social media. It is unlikely that we will need to do anything else to fill the school.

FREE wants the residents of Alamance county to own the Unity Global Academy so our fund raising efforts are focused mainly on the local community, as explained in "FEL_MISSION".

Applicant Evidence:



FEL-MISSION.pdf

Uploaded on **4/10/2022** by **PETER MORCOMBE**

Q196.Describe how you will engage parents in the life of the public charter school. Explain the plan for building engaging partnerships between the family and school that strengthen support for student learning.

In a locally controlled school, we have found that you don't need a plan to "build engagement". Successful leadership encourages and promotes partnership with families and the community.

FREE encourages volunteerism and especially through the SAC. As mentioned earlier it is amazing what SACs come up with and most of the projects they promote involve relatively little funding while motivating the stakeholders to work together.

Q197.If already identified, describe any programs you will offer to parents and/or the community and how they may benefit students and support the school mission and vision.

NC Public Charters



No two FREE schools are alike since our objective was (and is) to provide what the community wants. Thus when the parents at the Orange Charter demanded a full time music teacher they got one. The Woods school serves college bound kids by maximizing academic achievement. The Carter Community School has a reputation for helping handicapped children and children with learning disabilities.

By design FREE leaves as much power as possible in the hands of the local community. We welcome and encourage parents and other community members in voluntary participation.

10.7. Admissions Policy

Q198.Weighted Lottery Does your school plan to use a weighted lottery? The State Board of Education may approve an applicant's request to utilize a special weighted, or otherwise limited, lottery in certain circumstances. If the charter applicant wishes to deviate in any way from the open lottery normally utilized by charter schools, the following requirements must be met:

- 1. In no event may a lottery process illegally discriminate against a student on the basis of race, religion, ethnicity, gender, or disability.
- 2. A lottery process may not be based upon geographic boundaries, such as zip code or current public school attendance zones, unless the charter school is operated by a municipality OR the charter school was converted from a traditional public school. Municipal charter schools may give enrollment priority to domiciliaries of the municipality in which the school is located (G.S. 115C-218.45(f)(7)), and charter schools that were converted from traditional public schools shall give admission preference to students who reside within the former attendance area of the school (G.S. 115C-218.45(c)).
- 3. A lottery process that deviates from the standard lottery must be based upon the school's unique mission and must be based upon educationally, psychometrically, and legally sound practices, protocol, and research.

No

NC Public Charters



Q202.Provide the school's proposed policies and the procedures for admitting students to the proposed charter school, including:

- 1. Tentative dates for the open enrollment application period, enrollment deadlines and procedures. *Please be advised schools cannot accept applications until after final approval from the SBE.
- 2. Clear policies and procedures detailing the open enrollment lottery plan, including policies regarding statutory permitted student enrollment preferences.
- 3. Clear policies and procedures for student waiting lists, withdrawals, re-enrollment, and transfers.
- 4. Explanation of the purpose of any pre-admission activities (if any) for students or parents.
- 5. Clear policies and procedures for student withdrawals and transfers.

Under the terms of paragraph GS#115C-238.29F.(g)(6) a timely application will be defined as one received on or before May 13, 2023. This early date is intended

to provide enough time for the school to make offers of employment to public school teachers who must give ninety (90) days notice under the terms of GS#115C-238.29F.(e)(3).

All applications received on or before May 13, 2023 will be accepted as of that day. In the event that applicants for any grade exceed capacity, a public lottery

will be held on May 13 to allocate the available places. From May 14 onwards, all applications received will be accepted on the day they are received as long as

vacancies are available. Once a grade is full, a waiting list will be created from the remaining names drawn by lottery.

FREE will abide by these rules. We will attend the lottery events that the other local charter schools will hold in February 2023 to distribute fliers inviting parents to attend the Unity Global Academy lottery in the first week of March 2023.

We will use the procedures developed by the Clover Garden school for our first lottery. These procedures will be reviewed and if necessary amended before the second lottery takes place.

10.8. Certify

Q203. This subsection is entirely original and has not been copied, pasted, or otherwise

NC Public Charters



rei	oroduced	from	anv	other	appl	ication.
			~,			

- Yes
- No

Q204.Explanation (optional):

FREE plans to use the procedures that are working well at the Clover Garden and other FREE schools.

Our philosophy is to find out what our customers want and then make sure they get it as long as no laws are broken.



NC Public Charters



11. Operations

11.1. Transportation Plan

NC Public Charters



Q205.Describe in detail the transportation plan that will ensure that no child is denied access to the school due to lack of transportation. Include budgetary assumptions and the impact of transportation on the overall budget. The details of this plan should align with the mission, identified need for the charter school, targeted student population, and the budget proposal. If you plan to provide transportation, include the following:

- 1. Describe the plan for oversight of transportation options (e.g., whether the school will provide its own transportation, contract out for transportation, attempt to contract with a district, or a combination thereof) and who on the staff will provide this daily oversight.
- 2. Describe how the school will transport students with special transportation needs and how that will impact your budget.
- 3. Describe how the school will ensure compliance with state and federal laws and regulations related to transportation services

The Unity Global Academy will be located in Graham, Alamance county and 70% of the students are expected to be resident in the county. FREE has found that running our own buses gives us the ability to arrange all kinds of enrichment activities at minimal cost.

Although buses are provided, many parents prefer car pooling to school buses. From past experience of operating two schools in Alamance-Burlington, FREE anticipates that one bus per 100 students will be sufficient. The budget has been based on this assumption.

The first six FREE schools provided bus services and the Unity Global Academy will too. Making a detailed plan at this stage would be futile since we won't know where any of our students live until our first lottery has been completed. While most of the FREE school used the same type of buses as traditional K-12 schools, the Carter CS used nine seater buses that went door to door!

FREE bought only one bus brand new. The rest were bought at auctions by an expert automechanic who was a parent at one of our schools.

FREE only buys buses that pass safety inspections and then we have them inspected annually as is mandatory in North Carolina.

11.2. School Lunch Plan

Q206.Describe in detail the school lunch plan that will ensure that no child is lacking a

NC Public Charters



daily meal. The details of this plan should align with the targeted student population and school budget proposal. If the school intends to participate in the National School Lunch Program, include the following components in the response:

- 1. How the school will comply with applicable local, state, and federal guidelines and regulations;
- 2. Any plans to meet the needs of low-income students; and
- 3. Include how the school intends to collect free- and reduced-price lunch information from qualified families. If a school intends to participate in the Community Eligibility Provision, describe the methodology the school will use to determine eligibility.

FREE schools provide lunch facilities that are fully compliant with local, state and federal guidelines. We expect to have strong support from parent volunteers.

11.3. Civil Liability and Insurance

The Nonprofit shall name the SBE as an Additional Named Insured to their liability coverage for operation of a charter school while obtaining and maintaining insurance at a minimum in the following amounts:

- 1. Errors and Omissions: one million dollars (\$1,000,000) per occurrence;
- 2. General Liability: one million dollars (\$1,000,000) per occurrence;
- 3. Property Insurance: For owned building and contents, including boiler and machinery coverage, if owned;
- 4. Crime Coverage: no less than two hundred fifty thousand dollars (\$250,000) to cover employee theft and dishonesty;
- 5. Automobile Liability: one million dollars (\$1,000,000) per occurrence; and
- 6. Workers' Compensation: as specified by Chapter 97 of NC General Statute, Workers' Compensation Law

Q207.Complete the attached table, indicating the amount of each type of coverage as outlined in a quote obtained from an insurance provider.

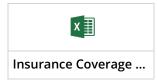
Upload Required File Type: excel Max File Size: 30 Total Files Count: 10



NC Public Charters



Resources



Applicant Evidence:



Uploaded on 3/25/2022 by PETER MORCOMBE

Q208.Attach Appendix L: Insurance Quotes

• The applicant must provide a quote from an insurance provider as part of this application (as Appendix L) to demonstrate the levels of insurance coverage and projected cost.

Upload Required File Type: pdf, image, excel, word, text Max File Size: 30

Total Files Count: 5

Applicant Evidence:



Uploaded on 3/25/2022 by PETER MORCOMBE

11.4. Health and Safety Requirements



NC Public Charters



All public charter schools are required to follow the regulations regarding health and safety as stated in G.S. 115C 218.75.

Q209.We, the Board members will develop a written safety plan and policies to be shared with staff, parents, and students and be available upon inspection from the Department of Public Instruction and local Health Departments. **The Board Chair must sign this question.**

Signature



NC Public Charters



Applicant Comments:

Applicant Comments:

(a) Immunization of Students

FREE schools follow local and state health codes. The Unity School will have a qualified nurse to oversee health-related matters.

(b) Fire and Safety Regulations

FREE schools follow local and state health codes

(c) Food Inspections

The Unity School plans to have a cafeteria, subject to obtaining health and safety permits. The nature of the food services provided will be for the School

Advisory Committee to decide, taking into account all relevant laws and common sense. No provision has been made in the school budget for food subsidies as

food services are expected to be self-funding.

(d) Hazardous chemicals

Some hazardous chemicals are needed for cleaning purposes and it is the custodian's duty to ensure that these are locked in a closet. In the event that

hazardous chemicals are needed for science experiments, it will be the duty of the supervising science teacher(s) to ensure that such chemicals are properly stored according to local and state safety codes.

(e) Bloodborne pathogens

The FREE schools follow local and state public health codes. The nurse will be responsible for maintaining a stock of rubber gloves, antiseptics, etc.

(f) Traffic safety

Each school has established a traffic pattern for drop-off and pick-up of children, with a specified bus loading and unloading area. All FREE schools have defined safety rules which have been explained to the children.

These and many other issues are covered in school policy handbooks.

11.5. Start-Up Plan

Q210.Provide a detailed start-up plan for the proposed school, specifying tasks, timelines, and responsible individuals (including compensation for those individuals, if applicable).



NC Public Charters



June 2022?: Charter approval. Advertise for teachers and staff. Start interviewing teachers and staff.

March 2023: Hold first lottery.

April 2023: Complete the building selection process. Letter of intent.

May 2023: 90% of hiring completed. Public meetings with prospective parents in locations near the school. Recruit School Advisory Committee members.

June 2023: Schedule staff training. More public meetings.

July 2023: Total panic. How on earth can we get the certificate of occupancy?

August 2023: Somehow we did it again! Our seventh school opens on time!

Please note that all six of our previous schools opened within five months of charter approval. More time is available for the UGA so it may be possible to avoid the panic over the certificate of occupancy. Another favorable factor is that mayor Talley has promised to "Fast Track" the permiting process for the school.

Q211.Describe what the board anticipates will be the challenges of starting a new school and how it expects to address these challenges. Submit a Start-up (Year 0) Budget as Appendix O, if applicable.



NC Public Charters



The #1 challenge is finding a suitable building. FREE is fortunate to still have Louise Cole on our board. Louise has a 100% success record since she secured buildings for all six FREE schools within five months of the charters being approved.

FREE also needs a local realtor to work with. Sadly, Mr. A.H. Patterson who rented and later sold the Clover Garden building to FREE has died but we have already contacted his son, Glenn Patterson who is ready to work with us.

The #2 problem is hiring the school leader. Assuming that our request for emergency approval is turned down we will have almost a year to hire the leader, purchase books/materials and furnish the building. This is more than twice the time needed for our earlier schools. Support from the CA organization will be important in our search for a principal. We need access to CA databases but that requires that we have a contract with CA. While CA staff have been very helpful with public information they require that we have an approved charter before entering into contract negotiations.

FREE knows how to obtain much of the materials needed via donations. Some items (e.g. textbooks) are obtained on a deferred payment basis. Things that can't be deferred include the principal's salary, benefits and relocation expenses.

The #3 problem is start up funds. In the past we needed only \$100,000 per school since the principal was hired only three months before the school opening. In the case of the UGA we may hire the principal nine or even 12 months before the first day of school. While there will be many benefits from early hiring we will need at least \$200,000 in start up funds.

We have prepared a version of the budget that includes "Year 0" expenses (use of funds). We have already raised \$190,000 and our target is \$2.2 million by August 2023. Fund raising tends to be an unpredictable endeavor but FREE has a tendency to over achieve.

11.6. Facility



NC Public Charters



Note that the SBE may approve a charter school prior to the school's obtaining a facility; however, students may not attend school and no funds will be allocated until the school has obtained a valid Certificate of Occupancy for Educational use to the Office of Charter Schools.

Q212.What is your plan to obtain a building? Identify specific steps the board will take to acquire a facility and obtain the Educational Certificate of Occupancy. Present a timeline with reasonable assumptions for facility selection, requisition, state fire marshal and health inspections, and occupation.

As stated earlier the #1 problem for charter schools is finding adequate buildings. FREE is fortunate to have Louise Cole on our board given her track record in finding school buildings, her 30 years of experience as a realtor and her long standing contacts in the area.

FREE decided to locate the school in Graham owing to strong support from mayor Jennifer Talley who has promised to "Fast Track" the permits for the school.

Applicant Evidence:



TALLEY-MX-B455W_2...

Uploaded on 3/25/2022 by PETER MORCOMBE

Q213.Describe the school's facility needs based on the educational program and projected enrollment, including: number of classrooms, square footage per classroom, classroom types, common areas, overall square footage, and amenities. Discuss both short-term and long-term facility plans. Demonstrate that the estimate included in your budget is reasonable.

NC Public Charters



The Unity Global Academy will open in a rented building as did each of the first six FREE schools. Very few commercial buildings are suited for use as schools without expensive modifications which are best avoided for rented space. This is why FREE typically reviews ten properties before we find one that suits our needs.

The budget assumes 16-17 students per class so the classrooms must be large. Ideally FREE wants classrooms to be from 800 to 1,000 square feet. We did operate two schools with 600 square foot classrooms but this is not something we would care to repeat. The budget is based on three classrooms per grade or 27 in total to reach the maximum allowed capacity of 450 students. Since we are renting we may have to settle for a smaller school with only two classes per grade.

What if we can't find a building with 18 classrooms? Since our business model is so efficient the school will still be viable with only nine classrooms. FREE operated the Orange CS with only nine classrooms for several years during which time sufficient reserves were accumulated to secure a bank loan for constructing the building shown in the attached photo.

The Orange CS, the Carter CS and the Clover Garden schools opened in buildings that were designed to be schools. The other three schools opened in commercial premises that were less well suited to purpose. That is why FREE started a school construction program. The other reason for constructing new schools is growth. The demand for the Orange CS was such that several new buildings had to be constructed. The school is now called the Eno River Academy and today it has a campus north of Hillsborough. The school still owns the building shown in the attached photo and rents it to the Orange County Schools. FREE board members and principal Chuck Nolan (now at the Voyager Academy, in Durham) broke ground on a site near the Sportsplex in February 2002. It is noteworthy that the school opened six months later.

One of FREE's original aims was to build small schools since they are "Human Scale" as Wendell Berry puts it. The small school in the attached photo was architect designed for 190 students. That explains why it could be constructed in six months while behemoth schools often take three times as long to build.

Conventional wisdom suggests that schools with less than 200 students are not viable. While that may be true for schools that are top heavy with administrators, FREE's highly efficient business model is viable with as few as 150 students. The lack of admisistrators saves money while reducing the burden on teachers so that they can concentrate on teaching. Thus our model is at once efficient, effective and teacher friendly.



NC Public Charters



Applicant Evidence:



Uploaded on 3/25/2022 Uploaded on 3/25/2022 by PETER MORCOMBE by PETER MORCOMBE

Q214.Describe school facility needs, including: science labs, art room, computer labs, library/media center, performance/dance room, gymnasium and athletic facilities, auditorium, main office and satellite offices, workroom/copy room, supplies/storage, teacher workrooms, and other spaces.

NC Public Charters



At the time of this application no facility has been identified but FREE is trying to find facilities that would include at least the following:

Total square feet: ~33,000 ft 2 Number of Classrooms: - 30 Number of Restrooms - 6 Land area - >5 acres Other Rooms: Auditorium - 2,000 ft 2 Gymnasium - 5,600 ft 2 Music Room, Art Room, Laboratory

In the past we were able to find only one rentable building that met all of these requirements. Today that building houses the Clover Garden school in Altamahaw.

It is unlikely that FREE will find a facility in Graham that meets these requirements so we may have to settle for a school with less than 450 students. Even a school with only 200 students would be viable. Once the school is operating the most urgent priority will be to construct a new building. The Graham planning and zoning office has identified seven sites in their jurisdiction that are large enough to accommodate a 450 student school.

So how will FREE fund the new building? In October 2021 FREE demade a presentation to the Alamance county commisioners offering the three funding alternatives:

- **Plan \$0.** No government grants
- **Plan \$1.** One million dollars in grants.
- **Plan \$2.** Two million dollars in grants

Since we have not received an offer from the commissioners FREE is proceeding with "Plan \$0" which uses only private money. As mentioned earlier we have raised \$190,000 thus far. This means we can afford to hire a principal in July assuming that emergency charter approval occurs by May 20, 2022. The school could open by the end of September.

Lacking emergency approval FREE will hire the principal between September 2022 and January 2023. Once the school opens in August 2023 any surplus from the "Start Up Funds" can be released to a school construction fund. FREE will need at least \$2 million as the down payment for a \$8



NC Public Charters



million bank loan. Fund raising is more of an art than a science but FREE expects that construction will commence in October 2023 so that the school is ready for students in August 2024.

What we do with the new building will depend on the quality of the rented building occupied by the Unity Global Academy. If the building is comparable with that of the Clover Garden school it would be best not to relocate. In this situation FREE would offer the new building to the Alamance Burlington School System or to a private school.

If the UGA rented building has problems a move to the new building might be justified.

Applicant Evidence:



Uploaded on 3/25/2022 Uploaded on 3/26/2022 by PETER MORCOMBE by PETER MORCOMBE

Q215.What is the breakdown of cost per square foot for the proposed facility? Outline how this cost is comparable to the commercial and educational spaces for the proposed school location.

The budget assumes \$19/sq. ft./year. Since real estate rental costs have increased 20% in the last year this could be an under estimate.

If it turns out that we have under budgeted FREE will transfer funds from the construction reserve which is should be > \$1 million in August 2023

Q216.Facility Contingency Plan: Describe the method of finding a facility if the one the board has identified will not be ready by the time the public charter school will be opening. Include information regarding the immediate spatial needs of the school and identify any programs that will not be immediately offered because a permanent facility has yet to open.

NC Public Charters



Failure is not an option. If we fail to find a suitable building the school won't open on time. In that situation we might request a delay of one year.

Since FREE is batting six out of six when it comes to finding buildings in lesswithin five months we are confident that the UGA will open in August 2023 even if the charter approval granted as late as April 2023.

Since FREE filed this application in July 2021 and re-submitted in time for a deadline of April 29, 2022 we respectfully request that the approval process be completed expeditiously.

Q217.Describe the board's capacity and experience in facilities acquisition and management, including managing build-out and/or renovations, as applicable.

It should be apparent from the earlier questions that FREE has an outstanding track record when it comes to renting and constructing school buildings. We set up schools in half the time and for half the money. We build public schools with private money, saving tens of millions in county taxes.

The key to all this is Louise Cole.

11.7. Certify

Q218.I certify that this subsection is entirely original and has not been copied, pasted, or otherwise reproduced from any other application.

- O Yes
- No



NC Public Charters



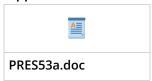
Applicant Comments:

We cut and pasted some items from the charter proposals for the Clover Garden school and the Woods Charter school. FREE does not see anything wrong with that since we submitted those proposals in the first place.

The attached presentation shows that FREE wanted to open a school with 320 students. That school is about to expand to 955 students. FREE would prefer three "Clover Gardens" with roughly 300 students each rather than one Clover Garden with almost 1,000 students.

Charter schools expand since it is hard to say "NO" to expansion when there are 500 students on the waiting list. Thus charter schools are growing far too large. The solution to this problem is to allow more charter schools to be set up. Then the huge waiting lists will vanish along with lotteries and the anguish they cause.

Applicant Evidence:



Uploaded on 3/26/2022 by PETER MORCOMBE

Q219.Explanation (optional):



2022 NC CHARTER APPLICATION NC Public Charters



12. Financial Plan

12.1. Charter School Budget

All budgets should balance indicating strong budgetary skills. Any negative fund balances will, more than likely, generate additional questions by those evaluating the application. If the applicant is depending on other funding sources or working capital to balance the operating budget, please provide documentation such as signed statements from donors, foundations, bank documents, etc., on the commitment of these funds. If these figures are loans, the repayment needs to be explained in the narrative and found within the budget projections.

Q220.**If applicable, attach Appendix M: Revenue Assurances.** Assurances are needed to confirm the commitment of any additional sources of revenue.

NC Public Charters



The FREE board created and operated six charter schools in North Carolina. We set up two schools in our first year and three in our second year. That kind of growth usually requires a massive influx of capital yet FREE has no shareholder capital since it is a 501(c)(3) and it has no wealthy donors. FREE needs to explain how it was able to set up five schools in two years. Can our earlier success be replicated?

Starting a new school requires "Up Front" funds for buildings, hiring the principal, books and equipment. The most difficult issue is buildings since large sums of money can be involved. FREE signed a lease with the Hoyt Shuford, pastor of the Fairview Baptist Church in Hillsborough. It was a great deal since FREE was allowed to defer lease payments until the Orange Charter School received operating funds from state and local governments. There were no lease guarantees and the building already had most of the furniture needed!

The Village Charter School opened in commercial space in Weaver Dairy Road flanked by a sandwich shop and a fitness center. The building was owned by Dan Deacon who insisted on a five year lease guarantee. Since the annual rent was \$192,024 the total lease liability was \$960,120. At that time there were four FREE board members and two of them refused to sign the lease. Louise Cole and Peter Morcombe signed knowing they would be forced into bankruptcy if the school failed. The good news is that the school did not fail.......two of Peter's children attended the school. The bad news is that the lease issue affected board cohesion to such a degree that two board members eventually resigned.

Since the FREE business model is highly efficient FREE was able to collect sufficient reserves to bankroll three new schools in its second year (the Woods CS, the River Mill CS and the Carter CS) without the need for personal guarantees from board members. Remember that our board members are unpaid volunteers.

When FREE decided to make a charter application for the Unity Global Academy we wanted to avoid repeating our past mistakes. For example it is not reasonable to expect our board members to risk bankruptcy if the school fails. Accordingly FREE Education Loans was set up in November 2021 independent and separate from FREE. The purpose of the new company is to provide start up funds for FREE and to construct a building for the school while limiting board member liability.

As discussed earlier \$200,000 is needed for start up. To construct a building we need \$2 million as a down payment to secure a \$8 million bank loan. Thus our funding target is \$2.2 million. To get things moving Louise Cole and Peter Morcombe provided the new company with \$160,000. We used that seed capital as collateral to attract loans from friends and neighbors by advertising in the Alamance News. The attached 1120S tax filing shows the seed money on line 22 and the loans received by December 31, 2021 on line 18 (\$25,634.34). The goal is \$2.2 million before the end of 2023.

If we fail to reach this ambitious goal it could delay the construction of a new school building. However we have already raised sufficient funds to cover starting up the school in a rented building. In the past FREE has received government grants over and above the funding linked to ADM (Average Daily Membership). We will apply for federal start up grants and we have already asked the Alamance county commissioners for funds. The problem with such grants is that they can't be relied on. It would be foolhardy to assume they will be forthcoming in a timely manner.

https://www.ncaccessprogram.com/ (https://www.ncaccessprogram.com/)



NC Public Charters



Applicant Evidence:



Uploaded on 3/26/2022 Uploaded on 3/27/2022 by PETER MORCOMBE by PETER MORCOMBE

Q221.Attach Appendix N: Proposed Budget for Year 1 through Year 5 Click here to access and download the Budget Template. (https://www.dpi.nc.gov/charter-application-budget-template-2021-22xlsx/download?attachment)

Upload Required File Type: pdf, image, excel, word, text Max File Size: 30

Total Files Count: 5

Applicant Comments:

The uploaded "BUDGETv4.xlsx" is identical to the budget submitted in July 2021. There have been some minor changes in \$/ADM but the effect is small and positive.

Our original budget was submitted before FREE started fund raising. It is now clear that our fund raising will be significant. As mentioned earlier we raised \$190,000 before the end of 2021 and expect to have \$2.2 millions before the end of 2023.

Since there is no "Year 0" in the budget template our internal budget summary has been uploaded. See UNITY-GA4.xlsx"

One advantage of having significant reserves early on is that they render nit-picking on minor budget line items moot.

FREE reviewed the growth of \$/ADM school funding in North Carolina over the last 25 years and found that it averages 1.7% per year. The official rate of inflation over the same period averaged 2.3%. Thus we expect it to be harder to balance a school budget than it used to be. That is another reason to build up reserves before the school opens.

In the end FREE decided to submit a "Constant Dollars" budget rather than an inflation adjusted budget. We think that was the right choice since the recent rate of inflation is far higher than the 2% p.a. we would have assumed.



NC Public Charters



Applicant Evidence:



Uploaded on 3/27/2022 Uploaded on 3/27/2022 by PETER MORCOMBE by PETER MORCOMBE

12.2. Budget Narrative

Please include additional information that explains the assumptions used in the 5-year budget.

Q222. How was the student enrollment number projected?

NC Public Charters



The first year enrollment number is 50 students per grade from K through 8. Given the tremendous pent up demand for charter schools in Alamance county we are confident that all grades will be filled. This school will need a lottery even in its first year.

For sake of argument suppose that FREE is wrong and only 150 students show up on the 20th day of school. FREE's business model allows schools with 150 students to generate a positive cash flow. FREE has managed several really small schools that have grown into large schools by generating cash reserves. Ours is a taxpayer friendly model since no funds are needed from county government to build our schools.

FREE's budgets have always worked in the past. If the enrolment is lower than projected we hire fewer people. Our administrative overhead is exceptionally low since we don't employ admistrative staff other than the school secretary. When we need professionals we hire them under contract. When it comes to administrators we prefer form 1099-MISC to form W-2.

While preparing the Unity Global Academy budget FREE had access to the detailed income and expenditure reports for the River Mill Academy and the Clover Garden schools. That is why we know that the projected salaries and other expenditures are realistic for Alamance county. It could be argued that costs for a new school will be higher than those for long established schools like the River Mill Academy. For example a new school may get hit with a lawsuit or inflation may affect the price of books.

Charter schools cannot survive with a negative cash flow since you can't be out of money when it is time to make payroll since they don't have anyone to bail them out. Two FREE school came close to failing to meet payroll namely the Carter Community School and the Woods Charter School. The Carter CS survived thanks to Anita Olinga making an unsecured loan to the school. The Woods school survived by making a temporary 25% cut in staff pay. Both schools survived but the experience was traumatic for everyone involved.

Nothing like that will happen to the Unity Global Academy since there will be at least \$1 million in reserves on the first day of school.

Q223.Provide an explanation as to why you believe there is a demand for the school that will meet this enrollment projection.

NC Public Charters



FREE prefers small schools so our original intention was to have a maximum of 300 students. Then we were told that would not be enough since charter schools have huge waiting lists in Alamance county. We thought about opening two 300 student schools, one in Guilford county and one in Alamance but dropped that idea in favor of a single 450 student school in Graham.

FREE did not have reliable information on waiting lists when it submitted this application in July 2021 thanks to COVID-19. Then in February 2021 the Alamance charter schools held lotteries and after all the available places had been allocated each school had waiting lists of 400+.

In view of the recent lottery results FREE is confident that our school will have no empty seats when it opens. Finding a building that can accommodate 450 students will be a greater challenge than filling the available seats.

Q224.Provide the break-even point of student enrollment.

The grand design of FREE was to demonstrate that "Non-profit Education Management Organizations" (NEMOs) could be a viable alternative to the "For-Profit Education Management Organizations (FEMOs).

Our model is highly efficient since FREE performs the functions of an EMO for \sim 3% of the ADM funding compared to 10-25% for EMOs.

Consequently our schools can survive with very few students. The Woods CS in its first year had an average ADM of 120 students. This is

not an experience we would like to repeat but FREE schools have operated comfortably with 150 students.

Q225.Discuss the school's contingency plan to meet financial needs if anticipated revenues are not received or are lower than estimated.

In the past FREE has operated without a safety net meaning that we opened all six of our schools with no cash reserves. As a consequence two of those schools almost ran out of cash in their first year.

FREE has already created a substantial cash reserve for the Unity Global Academy which should grow to ~\$2 million in 2023.

Q226.Does the budget rely on sources of funds other than state, county, and federal

NC Public Charters



(e.g., loans, donations, etc.)? If so, please provide the source and amount. Also, describe any committed contributions and in-kind donations of goods or services to be received by the charter school that will assist in evaluating the financial viability of the school. Clearly indicate between those grants or in-kind donations which have already been firmly committed and those the board is planning to pursue. Be sure that the appropriate assurances documentation is provided in the appendices.

In the past FREE was able to cover start up costs using federal grants of \$56,000 to \$100,000 per school. Since these grants can no longer be relied on we are using private money as the mainstay of our cash reserves.

https://www.wsj.com/articles/charter-school-sabotage-biden-teachers-union-public-school-achievement-gap-hispanic-black-students-charter-schools-program-rules-11648224610?mod=Searchresults_pos1&page=1 (https://www.wsj.com/articles/charter-school-sabotage-biden-teachers-union-public-school-achievement-gap-hispanic-black-students-charter-schools-program-rules-11648224610?mod=Searchresults_pos1&page=1)

We have asked the Alamance county commissioners for \$2 million but the Unity Global Academy will open in a rented building in August 2023 without any grant money at all. If the commissioners grant the \$2 million it will be used as the down payment on a \$10 million building. The bulk of the construction funds will be from private sources (e.g. bank loans). Public/Private partnership?

Applicant Evidence:



Uploaded on 3/27/2022 Uploaded on 3/27/2022 by PETER MORCOMBE by PETER MORCOMBE

Q227.Provide the student to teacher ratio that the budget is built on.

The UGA budget assumes 50 students per grade in three classrooms. An average of 16.7 per classroom.

Q228.Describe the board's individual and collective qualifications and capacity for implementing the financial plan successfully.



NC Public Charters



FREE already has board members who have managed large and small enterprises. We have a realtor with a great track record. We have educators with exciting ideas. We have a financial management professional. We have "Project Management" experience.

We are looking for new board members with ties to the local community and skills that will strengthen the board.

Q229.Describe how one or more high needs students with disabilities might affect the budget and your plan to meet student needs that might be more than anticipated.

FREE has experience with successfully meeting student needs. The Carter Community School was created to serve students with disabilities. Despite the school having only 190 students, we had enough involved and committed families to deal with budget shortfalls.

Public schools in North Carolina have access to funds such as the Federal IDEA funds. The state EC funds are based on April 1 census and provide both general and child-specific funds. These are just two of the many available federal and state funds to which we can apply to funding services to students with disabilities.

Q230.If there is a plan to outsource any or all financial management areas such as payroll, benefits, audits, fundraising, accounting, etc., provide a statement on how the vendors will be selected and how the board will oversee their activities to ensure fidelity and compliance.

In the past FREE employed Acadia-Northstar as our disbursement agent but today there are more options available. We are currently considering Bearman CPA PLLC, 4918 Oleander Dr, Wilmington, NC 28403.

The board sets a budget and delegates selection of vendors for day-to-day operations to the school leader. The effectiveness of the vendors will be reviewed annually as part of the budgeting process.

Q231.Does the school intend to contract for services such as student accounting and financial services, exceptional children instructional support, custodial, etc? Describe the criteria and procedures for the selection of contractors and large purchases.

NC Public Charters



FREE had a very satisfactory relationship with Merritt, Petway, Mills & Hockaday in the past. We will ask them to be our auditors.

The school will hire its own EC and custodial staff. IInstructional support will be provided by CA (Cambridge Assessment).

Q232.Explain how the budget aligns with the school's mission, curricular offerings, transportation plans, and facility needs.

Our budget aligns with our mission by investing in training, EC, transportation and meals, while continuing to operate with a strongly positive cash flow. Typically at least 5% of our ADM income will end up as "Reserves" owing to our efficient business model.

Q233.What percentage of expenditures will be the school's goal for a general fund balance? Describe how the school will develop the fund balance.

At least 5% of our ADM income will end up in the General Fund balance (aka Reserves) owing to our efficient business model.

Q234.Provide a description of proposed financing structure. Include financing of facilities, other asset financing, and leases.

FREE can has already started fund raising in anticipation of a charter being granted. Once FREE has a charter there are many possibilities. For example, in the past, the FREE board secured a loan guarantee from the USDA to build the Orange Charter School. Because banks salivate when loans are guaranteed by the federal government, we had local banks competing for our business. USDA loan guarantees make it possible to build small schools to serve communities with less than 25,000 residents. The FREE business model works well for schools as few as 150 students. We can bring high quality education to places inaccessible to "For-Profit" EMOs since they need large schools just to break even.

Q235.Will the school have assets from other sources (e.g. building, furniture, chairs, computers, etc.)? If yes, please provide a list. Note which are secured and which are anticipated, and include evidence of commitment for any assets on which the school's core operation depends.



NC Public Charters



The FREE board currently has no asset inventory. However, we have experience in acquiring donations of furniture, computers, and other useful equipment once a charter is granted.

The attached note on "Generosity" was part of a feature that appeared in the News & Observer in 1999 but since America is still a generous and prosperous nation FREE expects even better results in the future.

Applicant Evidence:



Uploaded on 3/27/2022 by PETER MORCOMBE

12.3. Financial Compliance

Q236. How will the school ensure adequate internal controls, including segregation of duties, safeguarding of assets, accurate and adequate record keeping?

FREE will hire contractors such as Aracadia-Northstar or Nigel S. Bearman CPA to make disbursements, for management accounting, preparing DPI reports and verifying ADM tallies. One of the fastest ways to get your school shut down is to submit inflated ADM numbers.

That is why FREE schools operate under the "No Surpises" approach described in "Managing" by Geneen & Moskow. The key idea is to ensure that CEOs (aka "Principals") are not allowed to control financial reporting of any kind. The same goes for academic performance reporting.

The FREE board hires bonded or insured contractors who report directly to the board rather than to "Line Management" for these matters. It is OK to trust as long as you "Verify".

FREE has contacted several companies in Alamance county with expertise in financial management applicable to schools without success but we will keep looking.

NC Public Charters



Q237.Provide any known or possible related party transactions (relationship, description of transaction, and estimated dollars involved).

None known.

Q238.Provide the name of the firm approved by the NC Local Government Commission (LGC) that will conduct the audit. Include the complete mailing address, telephone number, and fax number. If a firm has yet to be identified, please list the firms the board has investigated.

FREE propses to appoint auditors: PETWAY MILLS & PEARSON, PA 9121 Anson Way, Suite 200 Raleigh, NC 27615

Phone: (919)-781-1047

Office: info@pmpcpa.com (mailto:info@pmpcpa.com) NC CPA Board Certification: Raleigh Office #30283

Applicant Comments:

It is absurd to require the FREE board to select vendors before their charter application has been approved. In the past FREE used Acadia Northstar to provide financial services and Merritt, Petway as our auditors. The FREE board should be able to select vendors as we choose. However, if the approval of our application depends on which vendors we choose then the NC government needs to list the contractors it approves and FREE will hire from the list.

12.4. Certify

Q239.I certify that this subsection is entirely original and has not been copied, pasted, or otherwise reproduced from any other application.

Yes

No

Q240.Explanation (optional):

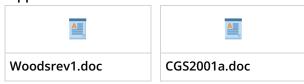


NC Public Charters



This application uses material from the charters of the Woods Charter School and the Clover Garden School. The documents attached show that Peter Morcombe was the contact person for both of these schools. Peter Morcombe is one of our board members.

Applicant Evidence:



Uploaded on 3/27/2022 Uploaded on 3/27/2022 by PETER MORCOMBE by PETER MORCOMBE



NC Public Charters



13. Other Forms

Q241.Sign the attached Charter School Required Signature Certification document and upload it as a PDF or image file.

Upload Required File Type: pdf, image Max File Size: 30 Total Files Count: 1

Resources



Applicant Evidence:



Uploaded on **4/10/2022** by **PETER MORCOMBE**



NC Public Charters



14. Third-party Application Preparation

Q242. Was this application prepared with the assistance of a third-party person or group?

- O Yes
- No



NC Public Charters



15. Application Fee

Pursuant to G.S. 115C-218.1(c) the charter school applicant must submit a \$1000 application fee to the Office of Charter Schools. The applicant must submit their application fee by **April 29, 2022, at 5:00 pm EDT** for Fast Track and Accelerated applications, and **April 29, 2022, at 5:00 pm EDT** for traditional timeline applications. Payments will be accepted in the form of a certified check. Cash is not accepted.

Q245.*Application Note: The applicant must mail the certified check along with the Application Fee Payment Form (see the resources for this question) before or on the due date of April 29, 2022, at 5:00 pm EDT for Fast Track and Accelerated applicants, and April 29, 2022, at 5:00 pm EDT for traditional timeline applicants. Failure to submit payment by the stipulated timeline to the Office of Charter Schools will deem the application incomplete. Payments should be made payable to the North Carolina Department of Public Instruction: North Carolina Department of Public Instruction

Office of Charter Schools 6307 Mail Service Center Raleigh, NC 27699-6307

I understand

Applicant Comments:

FREE furnished a \$1,000 check by the July 22, 2021 deadline.

Recently we were informed by the Office of Charter Schools that a second check is required by April 29, 2022.

We have therefore mailed a second certified check even though the payment form clearly stipulates:

"One registration form and fee per charter school"

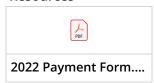
In "Q245" above the due date is still shown as July 22, 2021 so FREE respectfully requests clarification of this apparent inconsistency.



NC Public Charters



Resources



Applicant Evidence:



Uploaded on 4/9/2022 Uploaded on 4/9/2022 by PETER MORCOMBE by PETER MORCOMBE



NC Public Charters



16. Signature page

Q246.Fill out the attached resource and get it signed and notarized. Then upload as a PDF or image file.

Upload Required File Type: pdf, image Max File Size: 30 Total Files Count: 1

Resources



Applicant Evidence:



Uploaded on **4/9/2022**

by **PETER MORCOMBE**

Q247.Please digitally sign your application here

Signature





NC Public Charters



Final Status Reject	Approve			
Approver Con	nments			

Powered by **Edlusion**

6/8/2022

TABLE OF CONTENTS

Basic Introductions	Page 2
Governance	Page 4
Mission and Purposes	Page 5
Organization chart	Page 7
Board Chair Signature	Page 8
LEA Impact Statement	Page 10
Education Plan	Page 11
Business Plan	Page 14
Enrollment Numbers for Five Years	Page 15
Enrollment Totals	•
Commitment to Exceptional Children	
Budget: Revenues (projected)	
Budget: Expenditures (projected)	_
Budget: Capital and Assets	_
Audits: Program and Financial	_
Health and Safety Requirements	
Civil Liability and Insurance	
Transportation Plan	
Facility Description	
Marketing Plan	
Appendix "A"	Résumés
Appendix "B" Approval of non-pro	fit status for FREE
Appendix "C"FREE's articles of inco	
Appendix "D" Letters from	community leaders

Clover Garden School Page 2 of 28

BASIC INTRODUCTIONS

It is the intent of the person(s) and/or parties identified below to establish a Charter School for the 2001-02 school year pursuant to North Carolina General Statutes 115C-238.29 passed June 21, 1996 and as amended by the North Carolina General Assembly, other applicable state and federal applicable laws, State Board of Education policies and all of which subject be future amendments.

The North Carolina Charter Schools Act NCGS 115C-238.29D(b) states "The State Board shall authorize no more than 100 charter schools statewide." Current number of charter schools statewide for the 2000-01 school year is 95.

NAME OF PROPOSED CHARTER SCHOOL	CLOVER GARDEN SCHOOL
THIS APPLICATION IS SUBMITTED TO 115C-238.29B(c) (Check only one)	X Local Board of Education
LOCAL EDUCATION AGENCY IN WHICH PROPOSED SCHOOL WILL BE LOCATED 115C-238.29B(a) COUNTY	ALAMANCE-BURLINGTON - 17-42-01 PO Box 938, 1712 Vaughn Road, Burlington 27217-2916
PRIMARY CONTACT INFORMATION FOR THE APPLICATION 115C-238.29B(a)	Primary Contact Person: Peter H. Morcombe Primary Mailing Address: 101 Old Heritage Court City/State/Zip: Hillsborough, NC 27278 Day Phone: 919-245-3735 (Home) Work Phone: 919-660-2661 Fax: 919-660-2671 Email: pmorcombe@earthlink.net

Official Charter Schools Application 2000 NC Department of Public Instruction Office of Charter Schools Clover Garden School Page 3 of 28

UNDER LOCAL CONTROL OF LEA	Is the proposed charter school to be under the local control of the Local Board of Education? X No Yes If yes, then by what agreement/contract?
PUBLIC OR PRIVATE 115C-239.29B(a) 115C-238.29E(b)	Is the proposed charter school a: Public school conversion YesX No If a public school conversion, give the name and six-digit identifier of the school being converted: Private school conversion YesX No If a private school conversion, give the name of the school being converted: Note: If public, then documentation must be attached in the Appendices showing faculty and community support for the conversion to a charter school.

Clover Garden School Page 4 of 28

GOVERNANCE

PRIVATE NONPROFIT ORGANIZATION The PNP must be officially authorized and recognized by the NC Secretary of State by the final approval interview date. 115C-238.29B(a) 115C-238.29E(b)	Name of Private Nonprofit: FREE (Financial Reform for Excellence in Education) Mailing Address: P.O. Box 5008, 11500 Cole Park Plaza, 15-501 South City/State/Zip: Chapel Hill, NC 27514 Physical Location: Woods Charter School, 11500 Cole Park Plaza Day Phone: 919-549-6229 Fax: 919-960-0133 Check here if the private nonprofit status has not been certified by the Secretary of State's Office.							
FEDERAL TAX ID	ID: 56-1992519							
TAX-EXEMPT STATUS (501 (c)(3) 115C-238.29B(b)(3)	The private nonprofit listed as the responsible organization for the proposed charter school has the 501(c)(3) status: X Yes (see Appendix "C" for a copy of letter from federal government)							
	No							
	Note: The tax-exempt status must be obtained from the Internal Revenue Service within twenty-four (24) months of the date the Charter Agreement is signed.							
PROPOSED EMO / OTHER SERVICE CONTRACTS	Does the Proposed Charter School Board plan to contract for services with NO Educational Management Organization (EMO): Name of Company : YES Financial Vendor Name of Company : Northstar Consulting Inc. NO Other commercial vendors Name of Vendors : NO Local Education Agency Name of LEA : YES Other (Auditors) Please list: Merritt, Petway, Mills & Hockaday, Zebulon, NC							

Clover Garden School Page 5 of 28

MISSION

115C-238.29F(g)(5)

--Two or three sentences

PURPOSES OF PROPOSED CHARTER SCHOOL

115C-238.29A

EDUCATIONAL FOCUS

115C-238.29B(a) 115C-238.29B(c)

GRADE LEVELS (i.e., K-3, K-4, etc.) **ENROLLMENT BY YEAR** (i.e., 250, 267, etc.)

ORGANIZATION STRUCTURE OF PNP

115C-238.29B(b)(3) 115C-238.29E(d)

FREE believes that the decentralization of public education will have many benefits. We have put the control of our schools in the hands of the community, and the families of the children who attend the FREE schools. We will continue with this approach.

"Where the control of education is taken out of the hands of the family and the community, and schooling gets further and further away from the people who have a direct stake in it, the quality suffers. It is that which accounts in the largest part, for the deplorable state of American education today." Human Scale, page 127, by Kilpatrick Sale,

The school's program will include three main elements:

- A challenging academic curriculum.
- A strong discipline and honor code.
- A parent/guardian, student, teacher, school contract.

The focus of this CKF (Core Knowledge Foundation) charter school is to set a new standard in North Carolina for K through 12 education, by motivating all students to achieve their full potential. The goal will be to assist parents in their mission to develop exemplary young citizens with superior academic preparation, equipped with analytical thinking skills, a passion for learning and a virtuous character, all built upon a solid foundation of knowledge.

2001: K-8 2002: K-9 2003: K-10 2004: K-11 2005: K-12

2001: 324 2002: 360 2003: 396 2004: 432 2005: 468

The Clover Garden School, located in Altamahaw in the Alamance-Burlington school district will be controlled by Financial Reform for Excellence in Education (FREE), a non-profit corporation. The FREE board members are:

NAME	OCCUPATION ETC.PHONE
Polly Barrick	Orange CS parent, Registered Nurse
	919-732-4273
Tim Bennett	Village CS parent, businessman
	919-967-8249
Alan Bice	River Mill CS parent, businessman
	Secretary, 336-227-7820
Louise Cole	Woods CS parent, microbiologist
•	Vice Treasurer, 919-967-4314
Fred Johnson	Village CS parent, V.P. of a non-profit
	Treasurer, 919-408-3001
David Haley	Professional Engineer
_	Chair, 919-596-8411
Tyndall Harris	Woods CS parent, researcher
	919-942-3009
David Kolbinsky	Building sub-contractor
	919-732-3049

Clover Garden School Page 6 of 28

Peter Morcombe Village CS parent, engineer

919-942-5461

Philip Morgan River Mill CS parent, businessman

Vice Chair, 336-578-3621

Sara Morton Educator

919-563-9508

Roni Shutt River Mill CS parent, service manager

336-229-5445

Doval Watson Village CS parent, engineer

919-967-1748

Vanessa Welch Carter CS parent

919-361-0541

Michael White Woods parent, businessman

919-929-1876 (H) 919-967-4790 (Fax)

Executive Director and recording secretary:

Daniel Munn Woods CS parent

919-542-5338

FREE

The responsibilities and duties of FREE are shown in the bylaws which appear in the appendices. Most operating decisions in the individual schools are handled by the principal with the support of the staff of the school and the school advisory committee. The main duties of FREE relate to policy making, including financial oversight, starting new schools, hiring principals, funding buildings, negotiating contracts, handling legal disputes and charter issues. Some services are more economical to provide on a group basis, such as financial services, insurance, health benefits and pensions. FREE retains direct responsibility for these matters.

FREE's budgeting process requires each school to submit a preliminary budget in March of each year. FREE aims to approve each budget within one month. Once a school's budget is approved, the principal has authority over all expenditures within that budget. FREE directors are reimbursed for expenditures made on behalf of the schools but not for their time. Since August 1, 1999 FREE has employed a full time executive director financed by apportioning the general expense to all schools. The executive director is empowered to manage FREE's business between board meetings.

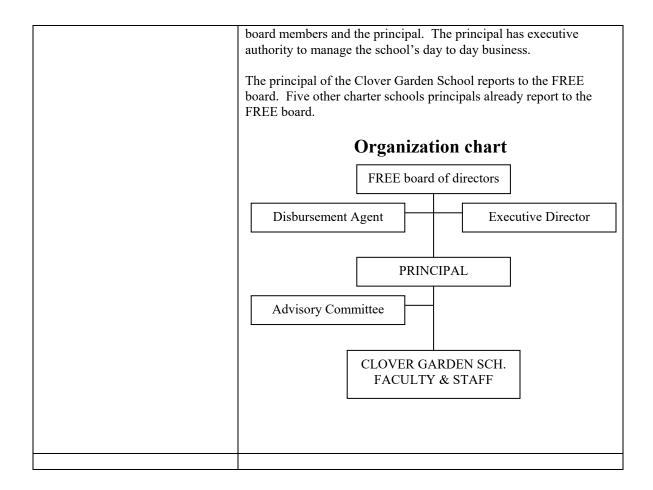
FREE's board meetings occur at least once per month. The Executive Director may not be a board member but is expected to attend all board meetings.

School management

Ideally, all operational decisions will be made at site level. It is intended that each school be run by the principal and staff members as delegated by the principal. The school advisory committee is responsible for working with the principal according to FREE's policies and procedures.

The school advisory committee will consist of three to five parent elected members, one teacher elected member, up to two FREE

Clover Garden School Page 7 of 28



Clover Garden School Page 8 of 28

ASSURANCE

IT IS THE INTENT OF THIS PROPOSED CHARTER SCHOOL (AS EVIDENCED BY THE SIGNATURE OF THE CHAIR OF THE BOARD BELOW) TO ACCEPT SPECIAL NEEDS CHILDREN UNDER THE FEDERAL LEGISLATION INDIVIDUALS WITH DISABILITIES EDUCATION ACT, THE STATE LEGISLTION CREECH BILL AS APPROPRIATE TO THE ADMISSIONS TO THE CHARTER SCHOOL. ALSO, THE PROPOSED SCHOOL WILL ABIDE BY THE CHARTER SCHOOL LEGISLATION NCGS 115C-238..29F(g)(5) AND THE CHARTER AGREEMENT:

A charter school shall not discriminate against any student on the basis of ethnicity, national origin, gender, or disability. Except as otherwise provided by law or the mission of the school as set out in the charter, the school shall not limit admission to students on the basis of intellectual ability, measures of achievement or aptitude, athletic ability, disability, race, creed, gender, national origin, religion, or ancestry.

ACKNOWLEDGEMENT

The applicant further acknowledges that, if successful in gaining final approval as a charter school by the State Board of Education, the Corporation must enter into a contractual agreement with the State Board of Education. The applicant further acknowledges that it must administer all required state tests and must participate in the ABCs Accountability Program unless an alternative model is approved by the Department.

BOARD CHAIR SIGNATURE

115C-238.29E(c)

Print/Type Name - DAVID HALEY

Signature				

Date -

PLEASE PROVIDE A PUBLIC NOTORY STAMP BELOW:

Clover Garden School Page 9 of 28

FROM THE PERSPECTIVE OF THE PROPOSED CHARTER SCHOOL---IMPACT ON THE COMMUNITY The Alamance-Burlington schools are growing at a rapid rate. The total enrollment has been growing by about 600 students per year. The Clover Garden School will serve the community by helping to reduce the over crowding in nearby public schools.

FREE is already providing some relief of over crowding in southern Alamance county by operating the River Mill Charter School in Saxapahaw.

FREE operates small schools with the aim of being responsive to community needs and aspirations. This helps the school district by providing an alternative for parents whose children are uncomfortable in large public schools.

Clover Garden School Page 10 of 28

LEA IMPACT STATEMENT

To be submitted by the Local Education Agency

LEA IMPACT STATEMENT 115C-238.29B(c)	The Local Board of Education (LEA), upon receipt of the application, may submit an Impact Statement to the Office of Charter Schools that will be used in the application review process. The LEA is responsible for completing the Impact Statement and mailing it to the Office of Charter Schools by October 15, 1999.
Required to submit copy of application to LEA by 9-7-99	[The proposed charter school does not need to initiate the Impact Statement.]
115C-238.29B(c1)	THE CHARTER APPLICANT MUST SUBMIT A COPY OF THE APPLICATION TO THE LOCAL SUPERINTENDENT OF THE SCHOOL SYSTEM IN WHICH IT WILL BE LOCATED BY SEPTEMBER 7.
LEA may submit any information in any f format as it chooses.	If the application is submitted to the university or to the local school district, then a courtesy copy should be mailed to the Office of Charter Schools by September 7.
	Signature of the Local Superintendent and/or Local Board Chair:
	Superintendent Date:/
	Board Chair Date:/
	Impact Statement is due to SBE October 15, 2000
	SUBMIT TO: NCDPI/Office of Charter Schools 301 N. Wilmington Street Raleigh NC 27601-2825

Official Charter Schools Application 2000 NC Department of Public Instruction Office of Charter Schools Clover Garden School Page 11 of 28

EDUCATION PLAN

NOTE:

Please answer all sections. Do not use "same as LEA" or "whatever the law says". Give explanations. Lack of proper documentation will jeopardize the application review.

METHODS OF DOCUMENTATING SUCCESS

success for the proposed charter school.

115C-238.29B(b)(2)

Required---Check appropriately:

--State Board's ABCs

______ The proposed charter school <u>will participate</u> in the ABCs Accountability Model and conduct the statewide testing as would all public schools in NC. (See State Board Policy HSA-P-001.)

Provide a concise description of the method to document student

--Other Option(s)

The FREE schools use a content rich curriculum (the Core Knowledge Foundation curriculum). We have supplemented this curriculum with Saxon Math and the content of the North Carolina ABCs Accountability Model (i.e., state end of grade tests). Consequently, our schools score well on state tests as well as national tests. The school will follow the same testing schedule as other public elementary schools throughout North Carolina. However, nationally normed tests will also be taken:

Tests

End of Grade tests	3 through 12
Computer proficiency test	8
Cognitive Abilities test	4
NC Writing test	4,7 and 10
California Achievement Test (CAT)	K through 12
PSAT	10,11
SAT	12

Every year the school will apply at least one nationally normed test. This will enable the school to document individual and school wide progress against national averages. Test results alone are not a sufficient measure of education quality. However, if educators are failing in things that are measurable, it is not reasonable to trust them in things that are not measurable. The school will provide the following information, being part of its obligations under the parent-school contract:

- A written report on each child's progress at the end of each school term.
- Reports on all independent evaluations of the school.
- Tables showing performance on state tests as compared to other local public schools.
- Tables showing expulsions and truancy rates.
- Tables showing performance on nationally normed tests.
- A report on expenditures and budgets.

Official Charter Schools Application 2000 NC Department of Public Instruction Office of Charter Schools Clover Garden School Page 12 of 28

STUDENT ACHIEVEMENT GOALS

115C-238.29B(b)(2)

We will use the ABC model and at least one nationally normed test such as the CAT (California Achievement Test), the Iowa test of basic skills or the MAT (Metropolitan Achievement Test).

ADMISSIONS POLICY/HANDBOOK

115c-238.29B(b)(4) 115C-238.29F(g) Under the terms of paragraph GS#115C-238.29F.(g)(6) a timely application will be defined as one received on or before May 13, 2001. This early date is intended to provide enough time for the school to make offers of employment to public school teachers who must give ninety (90) days notice under the terms of GS#115C-238.29F.(e)(3).

All applications received on or before May 13, 2001 will be accepted as of that day. In the event that applicants for any grade exceed capacity, a public lottery will be held on May 13 to allocate the available places. From May 14 onwards, all applications received will be accepted on the day they are received as long as vacancies are available. Once a grade is full, a waiting list will be created from the remaining names drawn by lottery.

STUDENT EXPULSION AND EXCLUSION

115C-238.29B(b)(11) 115C-238.29F(g)(7) There will be a strong discipline code at the school, but there will be no provision for corporal punishment. Good manners, regard for others, care of property, honesty, punctuality and reliability are expected. The main sanctions provided by the punishment system are written assignments, after school detention (for unsatisfactory work), detention (for serious or persistent misdemeanors) and double detention (for more serious offenses). For serious breaches of school discipline, a student may be suspended or his parents may be asked to withdraw him/her from the school. The principal and staff will be expected to use common sense and fairness at all times. Expulsion following a first incident will apply to the following offenses on school property:

* Assault on a

staff member or another student.

* The use of

weapons to harm another person.

Possession of

drugs or alcohol.

Verbal abuse

of teachers.

All day-to-day management of the school, including discipline, will be in the hands of the principal and the school staff as empowered by the principal. Expulsion decisions and other serious disciplinary measures can be appealed to the board of FREE. Disruptive behavior will not be tolerated in the classroom. When easily understood rules combined with a demanding curriculum have been introduced into public schools, the result is usually a sharp drop in the rate of disciplinary removals.

Clover Garden School Page 13 of 28

INSTRUCTIONAL PROGRAM

115C-238.29F(d)(1-5)

Tentative school calendar:

Teacher workdays August 1-August 10, 2001

School opens August 13 Columbus Day holiday October 8 Thanksgiving holiday November 22,23 Christmas break December 19-31 New Year's day January 1, 2002 Return to school day January 2 Martin Luther King holiday January 21 February 19 President's day Spring break April 2-6 May 27 Memorial Day June 7 Last day of school

Our teacher year will start on August 1 but the students will start twelve days later. This arrangement allows up to 10 days of staff orientation and training before the students arrive. As this is a new school with new staff, it will also provide opportunities for staff to get to know each other. The principal will work with parents to determine if any changes are needed. Besides the FREE schools, there are several other CKF schools in the area, so it is becoming more economical to arrange high quality CKF training for teachers.

Curriculum

A strong academic curriculum will be a cornerstone of the Clover Garden School. The curriculum will be based on:

- Core Knowledge Foundation (CKF) curriculum for K-8.
- IGCSE and AICE for grades 9 through 12.

These curricula will be enriched by elements from:

- The North Carolina standard course of study.
- Saxon math.
- A+ Learning System computer software.
- Star Net & Web Academy.
- Accelerated Reader, Failure Free Reading & Phonics.
- Roots & Wings.
- After School Learning Booster.
- Competitive Edge.

The building is furnished for use as a rest home. Some of these furnishings will be retained with the aim of setting up a pilot program for residential "Total Immersion" language tuition. There are over 100 such programs in the US but none are operating in North Carolina.

Clover Garden School Page 14 of 28

BUSINESS PLAN

PROJECTED TYPES OF STAFF 115C-238.29B(12)(e)	The permanent salaried equivalent full time positions are shown below. The school plans to expand one grade per year, so there will be a corresponding increase in staff in most categories:							
	 Principal Teachers Teacher assistants Bus drivers Janitor/custodian School secretary 	1 20 to 30 4 3 to 4 1 to 2 1 to 2						
QUALIFICATION REQUIRED FOR INDIVIDUALS 115C-238.29B(b)(10) FREE operates five charter schools with more than 80 fmembers. More than 80% have North Carolina teaching or have applications in process. The same pattern of his followed for the Clover Garden campus. Non-teaching staff are hired with appropriate qualificate administration, school bus driving etc. All staff are subbackground checks as a condition of employment.								
THIS PROPOSED CHARTER REQUESTS TO HAVE FEWER THAN THREE TEACHERS: 115C-238.29B(b)(12)	XNO YES							
REQUEST TO HAVE FEWER THAN 65 STUDENTS 115C-238.29B(b)(12)	X NO. Our proposed school will have 65 stud YES Explanation below.	lents or more.						
Justification for Less Students	Not applicable to this school							

Clover Garden School Page 15 of 28

ENROLLMENT

PROJECTED STUDENT ENROLLMENT---A SELF IMPOSED CAP FOR THE PROPOSED CHARTER SCHOOL

THESE PROJECTED NUMBERS WILL BECOME THE CONTRACT ENROLLMENT NUMBERS FOR THE PROPOSED CHARTER SCHOOL FOR THE FIRST FIVE (5) YEARS.

115C-238.29B(b)(12)

IDENTIFY LEA FROM WHICH STUDENTS WILL PROBABLY COME

NAME OF PROPOSED CHARTER SCHOOL - CLOVER GARDEN SCHOOL

List LEA #1 - ALAMANCE-BURLINGTON SCHOOLS

List LEA #2 - GUILFORD COUNTY SCHOOLS

List LEA #3 - ORANGE COUNTY SCHOOLS

		2001-2002			2002-2003			2003-2004			20	04-20	05	2005-2006		
GRADES		LEA	LEA	LEA	LEA	LEA	LEA	LEA	LEA	LEA	LEA	LEA	LEA	LEA	LEA	LEA
		1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
Kindergarten	k	25	7	4	25	7	4	25	7	4	25	7	4	25	7	4
First	1	25	7	4	25	7	4	25	7	4	25	7	4	25	7	4
Second	2	25	7	4	25	7	4	25	7	4	25	7	4	25	7	4
Third	3	25	7	4	25	7	4	25	7	4	25	7	4	25	7	4
Fourth	4	25	7	4	25	7	4	25	7	4	25	7	4	25	7	4

Official Charter Schools Application 2000 NC Department of Public Instruction Office of Charter Schools Clover Garden School Page 16 of 28

NAME OF PROPOSED CHARTER SCHOOL:

		2001-2002			2002-2003			2003-2004				04-20		2005-2006		
		LEA 1	LEA 2	LEA 3	LEA 1	LEA LEA LEA		LEA LEA LEA 1 2 3		LEA LEA 1 2		LEA 3	LEA 1	LEA 2	LEA 3	
Fifth	5	25	7	4	25	7	4	25	7	4	25	7	4	25	7	4
Sixth	6	25	7	4	25	7	4	25	7	4	25	7	4	25	7	4
Seventh	7	25	7	4	25	7	4	25	7	4	25	7	4	25	7	4
Eighth	8	25	7	4	25	7	4	25	7	4	25	7	4	25	7	4
Ninth	9				25	7	4	25	7	4	25	7	4	25	7	4
Tenth	10							25	7	4	25	7	4	25	7	4
Eleventh	11										25	7	4	25	7	4
Twelfth	12													25	7	4

Clover Garden School Page 17 of 28

NAME OF PROPOSED CHARTER SCHOOL: CLOVER GARDEN SCHOOL

The numbers and grades indicated are the proposed school's cap and structure per year indicated. The charter may grow by 10% of the previous year's enrollment (Average Daily Membership) or by application or by special request to the Office of Charter Schools in January.

T	\mathbf{O}	T	A	L	S

2001-2002		2002-2003		2003-2004		2004-2005			2005-2006					
LEA 1	LEA 2	LEA 3	LEA 1	LEA 2	LEA 3	LEA 1	LEA 2	LEA 3	LEA 1	LEA 2	LEA 3	LEA 1	LEA 2	LEA 3
225	63	36	250	70	40	275	77	44	300	84	48	325	91	52

THESE PROJECTED NUMBERS WILL BE THE CONTRACT NUMBERS FOR THE SCHOOL FOR THE 1999-2000 SCHOOL YEAR

IT IS THE INTENT OF THIS PROPOSED CHARTER SCHOOL TO ACCEPT SPECIAL NEEDS CHILDREN UNDER THE FEDERAL LEGISLATION INDIVIDUALS WITH DISABILITIES EDUCATION ACT, THE STATE LEGISLTION CREECH BILL AS APPROPRIATE TO THE ADMISSIONS TO THE CHARTER SCHOOL. ALSO, OUR PROPOSED SCHOOL WILL ABIDE BY THE CHARTER SCHOOL LEGISLATION NCGS 115C-238..29F(g)(5):

A charter school shall not discriminate against any student on the basis of ethnicity, national origin, gender, or disability. Except as otherwise provided by law or the mission of the school as set out in the charter, the school shall not limit admission to students on the basis of intellectual ability, measures of achievement or aptitude, athletic ability, disability, race, creed, gender, national origin, religion, or ancestry.

The following categories are defined in the *Procedures Governing Programs and Services for Children with Special Needs*. This publication may be obtained from the Division of Communication Services at 919/715-1018.

Ask for publication number EC115 and the cost is \$8.00 plus tax and handling.

Official Charter Schools Application 2000 NC Department of Public Instruction Office of Charter Schools

- -

Clover Garden School Page 18 of 28

EXCEPTIONAL CHILDREN

EXCEPTIONAL CHILDREN ANTICIPATED ESTIMATES	2001-2002	2002-2003	2003-2004	2004-2005	2005-2006
Autism					
Academically Gifted	28	31	34	37	39
(No State Funds for AG)Deaf-Blind	0				0
Haring Impaired	0			1	1
Mentally Handicapped	8	9	10	11	12
Multihandicapped	0	0			0
Orthopedically Impaired	0	0	0		0
Other Health Impaired	1		1	1	2
Pregnant	0	0			0
Behaviorally-Emotionally	2	2	3	3	3
Specific Learning Disability	15	16	17	18	20
Speech-Language Impaired	12	13	14	15	16
Traumatic Brain Injured					0
Visually Impaied	0				0
TOTALS	66	72	79	86	93

Clover Garden School Page 19 of 28

BUDGET

INCOME: REVENUE PROJECTIONS	2001-2002	2002-2003	2003-2004	2004-2005	2005-2006
State ADM Funds	\$1,172,075	\$1,354,398	\$1,549,431	\$1,757,900	\$1,980,567
Local Per Pupil Funds	\$ 410,408	\$426,824	\$443,897	\$461,653	\$480,119
Federal Funds	\$44,142	\$45,907	\$47,744	\$49,653	\$51,640
Grants	\$50,000	\$0	\$0	\$0	\$0
Foundations	\$0	\$0	\$0	\$0	\$0
Private Funds	\$0	\$0	\$0	\$0	\$0
Special education	\$97,841	\$113,061	\$129,342	\$146,744	\$165,331
TOTALS	\$1,774,466	\$1,940,190	\$2,170,413	\$2,415,950	\$2,677,657

Clover Garden School Page 20 of 28

MUST SHOW CALCULATIONS FOR FIGURING STATE AND LOCAL DOLLARS FOR THE PROPOSED CHARTER SCHOOL FREE has operated the River Mill CS in Saxapahaw, Alamance county for two financial years and budgets have been prepared for the 2000/1 financial year. This experience enables us to forecast the income per student with some confidence. FREE's budgeting practices are conservative, so our income figures usually need to be adjusted upwards when the ADM funding is determined following the completion of the state budget (due mid July 2000). The Clover Garden School budgets FOR 2001/2 have been based on the ADM estimates used in the River Mill CS 2000/2001 budget, increased by 4%:

		\$ PER ADM		
LEA	ADM	2000/2001	2001/2002	
ALAMANCE-BURLINGTON	225	963	1,002	
GUILFORD	63	1,534	1,595	
ORANGE	36	2,256	2,346	
AVERAGE		1,218	1,267	

Clover Garden School Page 21 of 28

MAY AMEND AS THE NEEDS OF THE SCHOOL DICTATES.

BUDGET EXPENDITURE PROJECTIONS	2001-2002	2002-2003	2003-2004	2004-2005	2005-2006
115C-23.B(b)(5)					
SOURCE					
PERSONNEL # 31.5 Administrator # 1 Clerical # 1 Teachers # 20 Librarians # 0 Guidance # 0 Teacher Assistants # 4 Custodian # 1 Maintenance # 0 Food Service # 0 Bus Driver # 3 Other 1	\$59.488 \$22,280 \$638,701 \$0 \$0 \$52,641 \$15,600 \$0 \$0 \$48,672 \$16,474	\$61,868 \$23,795 \$749,047 \$0 \$0 \$54,746 \$16,224 \$0 \$0 \$0 \$48,672 \$16,474 \$	\$64.342 \$49,494 \$867,198 \$0 \$0 \$56,936 \$33,746 \$0 \$0 \$67,492 \$16,474 \$	\$69.593 \$51,474 \$993,603 \$0 \$0 \$59,214 \$35,096 \$0 \$0 \$70,192 \$16,474 \$	\$91,249 \$53,533 \$1,149,930 \$0 \$0 \$61,582 \$36,500 \$0 \$0 \$72,999 \$16,474
EMPLOYEE BENEFITS	\$179,042	\$204,012	\$246,717	\$275,847	\$311,363
STAFF DEVELOPMENT	\$8,715	\$10,220	\$11,832	\$13,557	\$15,690
MATERIALS AND SUPPLIES	\$68,740	\$79,433	\$90,871	\$103,097	\$116,156
OFFICE SUPPLIES	\$15,163	\$17,522	\$20,045	\$22,742	\$25,623
INSTRUCTIONAL SERVICES	\$37,066	\$42,831	\$48,999	\$55,592	\$62,633
ADMIN SERVICES	\$48,522	\$56,070	\$64,144	\$72,775	\$81,993
INSTRUCTIONAL EQPT.	\$27,294	\$31,539	\$36,081	\$40,936	\$46,121
OFFICE EQUIPMENT	\$7,750	\$8,956	\$10,245	\$11,624	\$13,096

Official Charter Schools Application 2000 NC Department of Public Instruction Office of Charter Schools

_ _

Clover Garden School Page 22 of 28

TESTING MATERIALS	\$8,087	\$9,345	\$10,691	\$12,129	\$13,665
INSURANCE	\$15,163	\$17,522	\$20,045	\$22,742	\$25,623
UTILITIES	\$38,750	\$44,778	\$51,226	\$58,119	\$65,480
MORTGAGE	\$223,544	\$223,544	\$223,544	\$223,544	\$223,544
FACILITIES UPGRADES	\$145,000	\$95,000	\$45,000	\$45,000	\$45,000
MAINTENANCE & REPAIR	\$3,707	\$4,283	\$4,900	\$5,559	\$6,263
TRANSPORTATION	\$17,859	\$20,637	\$23,609	\$26,785	\$30,178
MARKETING	\$5,391	\$6,230	\$7,127	\$8,086	\$9,110
FOOD/CAFETERIA	\$4,044	\$4,673	\$5,345	\$6,065	\$6,833
TOTALS	\$1,706,420	\$1,848,079	\$2,095,267	\$2,317,752	\$2,581,051

Clover Garden School Page 23 of 28

WORKING CAPITAL/ASSETS ON DATE OF APPLICTION	Listing based on FREE's year end closing (June 30, 2000).
Cash on Hand	\$564,500
Certificates of Deposit	\$0
Bonds	\$0
Real Estate	\$80,000
Capital Equipment	\$5,000
Motor Vehicles	\$25,000
Other Assets	\$0
	\$ \$ \$ \$
ADDITIONAL NOTES:	The Clover Garden School has no assets as of the date of this application. FREE has already set up five schools that had no assets when their charter applications were submitted. Today the organization has assets as listed above. The FREE schools have received donations, mostly in the form of second hand furniture, computers and other capital equipment, originally valued at about \$3 million. These items are not included in assets listed above. One of FREE's main missions is to provide custom built facilities for all our schools. Not only will these buildings be more suited to our purposes but the costs incurred by the schools will be much lower. A separate non-profit corporation (the FREE Foundation) has been set up to raise the funds needed to construct or upgrade buildings and capital equipment.

Clover Garden School Page 24 of 28

PROGRAM AUDITS:

Describe the procedure and method for auditing the proposed charter school's programs: In grades K though 8, the FREE schools use the CKF curriculum. Two of the FREE schools have received CKF accreditation. It is expected that three will be accredited in 2001 and the Clover Garden School in 2003.

In grades 9 through 12 the FREE schools are implementing the IGSCE curriculum. Representatives from Cambridge University (England) have reviewed our program. We expect to achieve full accreditation for at least one school at AICE level within two years and all of our schools within four years.

FINANCIAL AUDITS:

Describe the procedure and method for conducting an independent financial single audit for the proposed charter school and name the firm and complete mailing address, telephone number and fax number. Merritt, Petway, Mills & Hockaday, PA (PO Box 1036, 1014 N. Arendell Avenue, Zebulon, NC 27597, Phone: 919-269-7405 FAX: 919-269-8728) have completed audits of the Village CS, the Orange CS and FREE for the financial year ended June 30, 1999.

The June 30, 2000 year end closing has been completed for all five FREE schools and financial reports are available for the auditors who expect to complete their reports during September 2000.

Clover Garden School Page 25 of 28

HEALTH AND SAFETY REQUIREMENTS

Address how the proposed charter school will meet the requirements for the following:

- Safe Schools

--Immunization of Students

--Fire and Safety Regulations

--Food Inspections

--Hazardous Chemicals

--Bloodborne Pathogens

(a) Immunization of Students

FREE schools follow local and state health codes. The Clover Garden School will have a qualified nurse to oversee health related matters.

(b) Fire and Safety Regulations

FREE schools follow local codes for fire and other safety regulations. At the Village school, much of the upfit cost related to meeting fire regulations.

(c) Food Inspections

The Clover Garden School plans to have a cafeteria, subject to obtaining health and safety permits. The nature of the food services provided will be for the School Advisory Committee to decide, taking into account all relevant laws and common sense. No provision has been made in the school budget for food subsidies as food services are expected to be self funding.

(d) Hazardous chemicals

Some hazardous chemicals are needed for cleaning purposes and it is the custodian's duty to ensure that these are locked in a closet. In the event that hazardous chemicals are needed for science experiments, it will be the duty of the supervising science teacher(s) to ensure that such chemicals are properly stored according to local and state safety codes.

(e) Bloodborne pathogens

The FREE schools follow local and state public health codes. The nurse will be responsible for maintaining a stock of rubber gloves, antiseptics etc.

(f) Traffic safety

Each school has established a traffic pattern for drop-off and pick-up of children, with a specified bus loading and unloading area. All FREE schools have defined safety rules which have been explained to the children.

These and many other issues are covered in school policy handbooks.

Clover Garden School Page 26 of 28

CIVIL LIABILITY AND	Insurance coverage will be provide	led as listed below:		
INSURANCE				
115C-238.29F(c)	General liability			
State the proposed coverage for	General aggregate	\$2,000,000		
	Products	\$1,000,000		
Comprehensive General	Personal injury	\$1,000,000		
Liability	Owner's & contractors	\$1,000,000		
	Fire damage	\$50,000		
	Medical expense	\$5,000		
Officers and Directors/Errors	Directors area	ors and omissions		
and Omissions	Directors and officers	\$1,000,000		
una Omissions	Employees	\$1,000,000		
	Employees	\$1,000,000		
		omobile		
Property Insurance	Combined single limit	\$1,000,000		
	Pro	pperty		
	Business personal property	\$250,000		
Motor Vehicle Liability	Extra expense	\$100,000		
	Zina enpense	\$100,000		
	Во	nding		
	Employee dishonesty	\$100,000		
Bonding	Money and securities inside	\$10,000		
	Money and securities outside	\$2,000		
Minimum amount:	Forgery	\$100,000		
Maximum amount:	Excess	s liability		
Tractification and the control	Each occurrence	\$1,000,000		
	Aggregate	\$1,000,000		
Other	1.981.98	\$1,000,000		
	Worker's compensatio	n and employer's liability		
	Each accident	\$500,000		
	Disease, policy limit	\$500,000		
	Disease, each employee	\$500,000		
TRANSPORTATION:	The Clover Garden School will be	e located in Alamance county and		
115C-238.29F(h)	70% of the students are expected	•		
Describe in detail the	especially in Burlington. FREE h			
transportation plan to ensure that		ge all kinds of enrichment activities		
no child is without an education	at minimal cost.	So all kinds of emicinion delivines		
due to not having a way to/from				
the proposed charter school.	The FREE schools have transport	ation services based on a		
1 1	combination of car pooling and school buses. Given the relatively high population density around Burlington, it is anticipated that or			
		cient. The budget has been based on		
	this assumption.	-		

Clover Garden School Page 27 of 28

FACILITY:

115C-238.29C(c)

Describe the facility in which the school will be located. It is possible that a facility has not been obtained and the charter could receive final approval without a facility at this time. At the time of this application, has a facility been obtained? However, if approved the State Board will not initiate any funds unless a certificate of occupancy for educational use has been obtained prior to personnel or children entering the facility.

____ Yes __X__ No

Name of the Facility (if known) - Clover Garden School

Address: Altamahaw Union Ridge Road

City/State/Zip: Morton Township, Alamance County, NC

Description of the Facility:

Total square feet: - 29,100 ft²
Number of Classrooms: - 26
Number of Restrooms - 6

Land area - 14 acres

Other Rooms:

Auditorium - 2,000 ft² Gymnasium - 5,600 ft²

Music Room -Art Room -Laboratory -

FREE intends to purchase the building and two banks have shown an interest in providing loans to cover up to 80% of the purchase price. The main building is in excellent condition with a new HVAC system and a new roof. The gymnasium needs extensive repairs.

The building was designed with fire safety and handicap accessibility in mind. However, it is unoccupied at present and will have to be reinspected. The Clover Garden School will hire custodial staff and contract maintenance out.

In the event that the building is unavailable for any reason, it is unlikely that another facility will be found in time to open a school in the fall of the year 2001.

Clover Garden School Page 28 of 28

MARKETING:

Describe in detail the marketing plan for the proposed charter school during the upcoming year, including any long-range plans for recruiting students, expanding facilities, and attracting certified and other teachers to the school. Address diversity, geography, etc. as the plan relates to the legislation governing the charter school.

FREE Board members have been effective in communicating with the general public. Most of our publicity has been provided at no cost. Our public meetings are often "standing room only". We have an interesting story to tell as our schools are doing well and we have many happy parents. Our ability to get the message out has been a major factor in our rapid growth. The techniques that have worked best have been:

- Public service announcements. Local radio, cable TV and newspapers.
- **News coverage.** FREE has been featured on local radio and newspapers.
- Guest columns and "letters to the editor".
- **Public meetings.** Our public meetings have been well attended.
- Paid advertising. Last year hundreds of applicants for faculty positions were found at a cost of less than \$1,000.
- Fund raising. FREE has been successful in attracting donations of in cash and kind.

The FREE schools have a diverse student body. For example, the Village CS in the Chapel Hill-Carrboro School district has students of more than fifteen nationalities.

The FREE Board of Directors has two Afro-American members, one immigrant and four women. FREE is trying to ensure that all our schools have representatives on the board and that limits the range of candidates available for selection.

The main month by month activities are outlined below:

March 2001: Charter approval!. Advertise for teachers and staff. Start interviewing teachers and staff.

April 2001: Close the building deal. Start the upfit work. Start the publicity campaign.

May 2001: 90% of hiring completed. Public meetings with prospective parents in locations near the school. Recruit School Advisory Committee members.

June 2001: Schedule staff training. More public meetings.

July 2001: Total panic. How on earth can we get the certificate of occupancy?

August 2001: Somehow we did it again! Our sixth school opens on time!

BYLAWS

OF

F.R.E.E.

ARTICLE I

Name and Object

Section 1. Name. This Association is incorporated and organized under the laws of North Carolina under the name of "Financial Reform for Excellence in Education" (hereinafter referred to "F.R.E.E.", the association, the organization, or the Corporation).

Section 2. Object. The objects of the F.R.E.E. are for scientific, educational and charitable purposes within the meaning of section 501(c)(3) of the Internal Revenue Code of 1986 and in this connection, will promote the welfare of children and to encourage and promote education excellence to students in grades k-12 throughout North Carolina by establishing and maintaining charter schools pursuant to the North Carolina Charter Schools Act of 1996.

Section 3. <u>Tax Exempt Status</u>. No part of the net earnings of the organization shall inure to the benefit of its members, directors, officers or other persons except that the organization shall be authorized and empowered to pay reasonable compensation for services rendered and to make payments and distributions in furtherance of the exempt purposes of the organization.

In the event of dissolution, all net assets purchased with public funds will be distributed as provided by in N.C.G.S. \$11SC-238.29F(i). Other assets of the organization will be turned over to one or more organizations with similar purposes or to one or more organizations which are exempted organizations described in section 501(c)(3) of the Internal Revenue Code of 1954, if dissolution occurs.

Section 4. <u>Purpose</u>. The purposes for which the F.R.E.E. is organized are exclusively charitable, scientific, literary and educational within the meaning of section 501(c)(3) of the Internal Revenue Code of 1986 or the corresponding provision of any future United States Internal Revenue law.

Notwithstanding any other provision of these articles, this organization shall not carry on any activities not permitted to be carried on by an organization exempt from Federal income tax under section 501(c)(3) of the Internal Revenue Code of 1986 or the corresponding provision of any future United States Internal Revenue law.

Upon the dissolution of the corporation, assets shall be distributed for one or more exempt purposes within the meaning of section 501(c)(3) of the Internal Revenue Code, or corresponding section of any future federal tax code, or shall be distributed to the federal government or to a state or local government for a public purpose. Any such assets not so disposed of shall be disposed of by the Court of Common Pleas of the county in which the principal office of the corporation is then located exclusively for such purposes or to such organization or organizations as said Court shall determine which are organized and operated exclusively for such purposes.

ARTICLE II

Membership

Section 1. $\underline{\text{Qualifications}}$. The Corporation shall not have members and the Board of Directors shall be elected as provided herein.

ARTICLE III

Section 1. Fiscal Year. The fiscal year of the Corporation shall begin on the first day of July and end on the last day of June in each year.

ARTICLE IV

Board of Directors

Section 1. Number. The property, affairs, activities, and concerns of the Corporation shall be vested in a Board of Directors, consisting of fourteen directors nine of whom shall be referred to as "community representatives" and five of whom shall be referred to as "school representatives". The members of the Board shall, upon election, immediately enter upon the performance of their duties and shall continue in office until their successors shall be duly elected and qualified.

FREE bylaws February , 1999 Page 2 of 8

- Section 2. <u>Selection of directors and term</u>. At the annual meeting next held after the adoption of these Bylaws, there shall be a election of the eleven directors of the Board. The nine community representatives shall be appointed by the executive committee of F.R.E.E.. The five school representatives shall be elected from each of the five charter schools. The directors shall serve for an one year term subject to renewal. At the expiration of any term, any director may be reelected or reappointed subject to the other terms and conditions herein.
- Duties of directors. The Board of Directors Section 3. may: (1) hold meetings at such times and places as it thinks (2) admit Board members and suspend or expel them by appoint committees on particular subjects from the ballot; (3) members of the Board, or from other members of the Corporation; (4) audit bills and disburse the funds of the Corporation; print and circulate documents and publish articles; (6) on correspondence and communicate with other associations interested in the purposes of the Corporation; (7) agents; (8) control and have authority over all charter schools in which it holds the charters as herein set forth below and (9) devise and carry into execution such other measures as it deems proper and expedient to promote the objects of the Corporation and to best protect the interests and welfare of the members.
- Section 4. Meetings of Board. Regular meetings of the Board of Directors shall be held immediately preceding and succeeding the annual election. Notice of the meeting signed by the Secretary shall be mailed to the last recorded address of each member at least ten days before the time appointed for the meeting. The Chair may, when he deems necessary, or the Secretary shall at the request in writing of five members of the Board, issue a call for a special meeting of the Board and only five days notice shall be required for such special meetings.
- Section 5. Quorum. A simple majority of members of the Board of Directors shall constitute a quorum for the transaction of business. In the absence of the Chair, the quorum present may choose a Chair for the meeting. If a quorum is not present, a lesser number may adjourn the meeting to a later day, not more than ten days later.
- Section 6. Absence. Should any member of the Board of Directors absent himself unreasonably from three consecutive meetings of the Board without sending a communication to the Chair or Secretary stating his reason for so doing, and if his excuse should not be accepted by the members of the Board, his seat on the Board may be declared vacant, and the Chair may forthwith proceed to fill the vacancy.

FREE bylaws February , 1999 Page 3 of 8

Section 7. Removal of directors. Any one or more of the directors may be removed either with or without cause, at any time, by a vote of two-thirds of the members present at any special meeting called for that purpose.

Section 8. Order of Business. The order of business shall be as follows at all the meetings of the Corporation, Board of Directors and any Committee established by the corporation:

- (a) Call of the roll.
- (b) Proof of notice of meeting.
- (c) Reading of the minutes.
- (d) Receiving communications.
- (e) Election of officers.
- (f) Reports of officers.
- (g) Reports of committees.
- (h) Unfinished business.
- (i) New business.

Any question as to priority of business shall be decided by the Chair without debate.

This order of business may be altered or suspended at any meeting by a majority vote of the members present.

Section 9. <u>Compensation</u>. For service on the Board of Directors, no compensation shall be received, except that reasonable reimbursement for expenses incurred by any Board member is permitted.

Section 10. Other. As a condition for election as a school representative on the Board of Directors, said individual must have a child attending a charter school operated by the Corporation. If at a later date, any school representative on the Board of Directors ceases to have a child attending a charter school operated by the Corporation, then he can be removed from the Board of Directors as otherwise provided herein.

FREE bylaws February , 1999 Page 4 of 8

ARTICLE V

Officers

- Section 1. Number. The officers of this Corporation shall be a Chair, a Vice-Chair, a Secretary, and a Treasurer, known as the Executive Committee.
- Section 2. <u>Method of Election</u>. The Board of Directors shall elect all officers for a term of one year, the Chair being elected from the Board of Directors. A majority of a quorum present shall be necessary to constitute an election.
- Section 3. <u>Duties of Officers</u>. The duties and powers of the officers of the Corporation shall be those usual to the respective offices. In addition to the usual and customary duties, the duties for each office shall include the following:
- Chair: moderating meetings, ensuring fairness of the meetings, setting meeting agenda, soliciting topics and issues.
 - Vice-Chair: Assisting Chair, and filling in when Chair is absent.
 - Secretary: Sending meeting notices and arranging meeting locations, preparing meeting agendas, preparing and distributing appropriate records and minutes of the meetings, collecting votes, preparing and maintaining the corporate books and records and ensuring a quorum is achieved for any meeting, and maintaining the corporate seal.
 - Treasurer: Custody of all funds and securities belonging to the Corporation, shall receive, deposit or disburse the same under the direction of the Board of Directors.
- Section 4. $\underline{\text{Vacancies}}$. All vacancies in any office shall be filled by the Board of Directors without undue delay, at its regular meeting, or at a meeting specially called for that purpose.
- Section 5. <u>Bonding</u>. The Board of Directors may require any or all of the Officers of the Corporation to give a surety bond to the Corporation, in an amount satisfactory to said Board, as may time to time be required by the Board of Directors.

FREE bylaws February , 1999 Page 5 of 8

Section 6. <u>Compensation of Officers</u>. The officers shall not receive a salary or compensation except for reasonable reimbursement for expenses incurred.

ARTICLE VI

INDEMNIFICATION AND REIMBURSEMENT OF DIRECTORS AND OFFICERS

Section 1. Indemnification for Expenses and Liabilities.

- a) Any person who at any time serves or has served:
 - 1) as a director, officer, employee or agent of the Corporation;
 - 2) at the request of the Corporation as a director, officer, partner, trustee, employee or agent of another foreign or domestic corporation, partnership, joint venture, trust, or other enterprise; or
 - 3) at the request of the Corporation as a trustee or administrator under an employee benefit plan, shall have a right to be indemnified by the Corporation to the fullest extent from time to time permitted by law against Liability and Expenses in any Proceeding (including without limitation a Proceeding brought by or on behalf of the Corporation itself) arising out of his status as such or activities in any of the foregoing capacities or results from him being called as a witness at a time when he was not a named defendant or respondent to any Proceeding.
- b) The Board of Directors of the Corporation shall take all such action as may be necessary and appropriate to authorize the Corporation to pay the indemnification required by this provision, including, without limitation, to the extent needed, making a good faith evaluation of the manner in which the claimant for indemnity acted and of the reasonable amount of indemnity due him.
- c) Any person who at any time serves or has served in any of the aforesaid capacities for or on behalf of the Corporation shall be deemed to be doing or to have done so in reliance upon, and as consideration for, the rights provided for herein. Any repeal or modification of these indemnification provisions shall not affect any rights or obligations existing at the time of such repeal or modification. The rights provided for herein shall inure to the benefit of the legal representatives of any such person and shall not be exclusive of any

FREE bylaws February, 1999 Page 6 of 8

- other rights to which such person may be entitled apart from this provision.
- d) The rights granted herein shall not be limited by the provisions contained in Sections 55A-17.1 through 55A-17.3 of the North Carolina Non-Profit Corporation Act or any successor to such statutes.

Section 2. <u>Insurance</u>. Corporation shall have the power to purchase and maintain insurance on behalf of any person who is or was a Director, officer, employee or agent of the Corporation, or is or was serving at the request of the Corporation as a director, officer, partner, trustee, employee, or agent of another domestic or foreign corporation, partnership, joint venture, trusts, or other enterprise or as a trustee or administrator under an employee benefit plan against liability asserted against him and incurred by him in any such capacity, or arising out of his status as such, whether or not the Corporation would have the power to indemnify him or her against such liability.

The following terms as used in this Section 3. Definitions. Article shall have the following meanings. "Proceeding" means any threatened, pending or completed action, suit, or proceeding any appeal therein (and any inquiry or investigation that could lead to such action, suit, or proceeding), whether civil, administrative, investigative or arbitrative criminal, whether formal or informal. "Expenses" means expenses of every kind, including fees. "Liability" means the obligation to pay a judgment, settlement, penalty, fine (including an excise tax assessed with respect to an employee benefit plan), reasonable expenses incurred with respect to a proceeding and all reasonable expenses incurred in enforcing the indemnification rights provided herein. "Director", "Officer", "Employee" and "Agent" include the estate or personal representative of a Director, officer, employee, or agent. "Corporation" shall include any domestic or foreign predecessor of this Corporation in a merger or other transaction in which the predecessor's existence ceased upon consummation of the transaction.

FREE bylaws February , 1999 Page 7 of 8

ARTICLE VII

Committees

Section 1. <u>Committees</u>. The Board of Directors shall appoint such standing or special Committees as it deems necessary for the interests of the Corporation.

ARTICLE VIII

Seal

Section 1. Seal. The seal of the Corporation shall be as more particularly shown in the following impression:

ARTICLE IX

Amendments

Section 1. Amendments. These Bylaws may be amended, repealed, or altered in whole or in part by a two-thirds majority vote at any duly organized meeting of the Corporation. The proposed change shall be mailed to the last recorded address of each member at least ten days before the time of the meeting which is to consider the change.

The foregoing amended Bylaws were adopted by the Board of Directors at a meeting held on ______, 1999 and ordered attested by the Secretary and filed as part of the Minutes of the meeting.

FREE bylaws February , 1999 Page 8 of 8

<u>Financial Reform for Excellence in Education</u> 100 Lisa Drive Carrboro, NC 27510

Phone: 919-942-5461

May 3, 1999

Dr. Grova Bridgers North Carolina State Board of Education 301 North Wilmington Street Raleigh, NC 27603-2825

Dear Dr. Bridgers,

This charter has been revised in accord with the revisions recommended for the Village Charter School by the NC Charter Schools Advisory Committee. The changes affect the following sections of the original charter approved in March 1998:

- FREE's registered office is now at 110 Lisa Drive, Carrboro.
- Thad Talisman is the Authorizing Agent of FREE.
- Section V. (Business Plan.) This section has been rewritten as recommended by the North Carolina Charter School Advisory Committee and the Office of Charter Schools.
- FREE's bylaws. The IRS has requested changes to the bylaws in order to facilitate approval of 501 (c3) status. The bylaws have been updated accordingly. The school bylaws have been deleted.

FREE wishes to implement the recommendations as soon as possible. However, we need written authorization to proceed. I assume that you can make the necessary arrangements. Please contact me in writing if you need FREE to take any further action.

Sincerely,

Thad Talisman,

Chairman

APPLICATION TO BECOME A CHARTER SCHOOL IN NORTH CAROLINA FOR 1997-98 SCHOOL YEAR GS 115C-238.29

COVER/TITLE PAGE

FORMAL APPLICATION

I. BASIC INTRODUCTIONS

INTENT: It is the intent of the person(s) and/or parties identified below to establish a Charter School for the 1998-99 school year pursuant to Chapter 731 House Bill 955 passed June 21, 1996 by the North Carolina General Assembly (GS 115C-238.29) and as might be amended by the time that of the application submission.

REQUEST FOR PRELIMINARY APPROVAL: This application and supplementary materials, if any, constitute a formal request to the chartering entity listed below to give preliminary approval for the Charter school described herein:

See "Preparation and Mailing Instructions" prior to this section.

THIS APPLICATION IS BEING SUBMITTED TO THE FOLLOWING PRELIMINARY
CHARTERING ENTITY (CHECK ONLY ONE):
115C-238.29B(c)
Local Board of Education
University of North Carolina Campus Board of Trustees
X _ State Board of Education

NAME THE ABOVE PRELIMINARY CHARTERING ENTITY (LEA / UNC / SBE):

North Carolina State Board of Education

Primary Contact person: Grova Bridgers

North Carolina State Board of Education

Office of Charter Schools 301 North Wilmington Street Raleigh, NC 27603-2825

Phone: 919-715-1730

APPLICANT INFORMATION

115C-238.29B(a)

Name of Charter School: The Woods Charter School

Corporate name: Financial Reform for Excellence in Education. (FREE)

Contact person: Peter Morcombe
Corporate mailing address: 110 Lisa Drive
City, State, ZIP Carrboro, NC 27510
Phone: 919-942-5461

Phone: 919-942-5461 FAX: 919-660-2671

Email address: peter.morcombe@duke.edu

PROJECTED AGE RANGE OF STUDENTS ATTENDING:

From ages: 11 to 18 years and from grade levels 6 to 12 and

Total number of students 210

LOCAL EDUCATION AGENCY LOCATION:

115C-238.29E(a)

The proposed Charter School herein named is/will be physically located in the following

Local Education Agency: Chatham Schools

County: Chatham

IS IT THE APPLICANT'S INTENTION THAT THIS CHARTER SCHOOL BE SUBJECT TO SOME SUPERVISION AND CONTROL OF ITS ADMINISTRATIVE OPERATIONS BY THE LOCAL BOARD OF EDUCATION?

	_YES
X	NO
	

IS THIS A CONVERSION OF AN EXISTING SCHOOL?

YES
X NO

If yes, are you converting a public school or a private school?

____ PUBLIC PRIVATE

Name of the school being converted: NOT APPLICABLE

The Charter School must have obtained approval as a Private Nonprofit Corporation from the Secretary of State. A copy of the approval must be attached. The 501 (c)(3) status must be obtained within twenty-four months after the final approval is granted by the NC State Board of Education.

115C-238.29B(a) and 115C-238.29E(b).

Before an application for tax exempt status is made, a Federal Tax ID Number must be obtained from the Internal Revenue Service.

Federal Tax ID Number: 56-1992519

Form SS-4 may be obtained from the IRS office.

The tax-exempt Status must be obtained from the Internal Revenue Service within twenty-four (24) months of the date of the final approval to operate as a Charter School.

SERVICES:
Do you plan to obtain services for the day-to-day operations of the proposed charter school from
an outside public/private vendor, such as an accounting, special education, transportation, school
lunches, etc.?
<u>X</u> YES - <u>NO</u>

Such services from the Local Education Agency or other vendor might include, but are not limited to, such things as transportation, food services, space rental, evaluation, etc. Please list services and vendors in the appropriate sections of the application.

ACKNOWLEDGMENT FOR APPLICANT SIGNATURE 115C-238.29E(c)

115C-238.29E(c)	
ACKNOWLEDGMENT: The applicant acknowledges that, if successful in ga School by the State Board of Education, the Corpor contractual agreement with the Local Education Agon behalf of the Local Board of Education.	ration must enter into a formal
TITLE: Financial Reform for Excellence in Education	L
Signature of Authorizing Agent of Corporation:	 Date: .
organical of Authorizing Agent of Corporation.	<u>.</u>
THAD TALISMAN	<u>CHAIRMAN</u>
PRINT NAME of Authorizing Agent of Corporation	Corporate Position

II. STATEMENT OF IMPACT

By December 15, a Statement of Impact must be completed by the LEA in which the proposed charter school will physically reside. This is one tool in the evaluation process and is not intended to be the final recommendation for approval or disapproval. After the application is completed by the applicant, the applicant must send a complete copy of the application (including this blank impact form) with a cover letter to the Superintendent of the LEA in which the proposed charter school will be located. The LEA must complete this form and return it to the preliminary chartering entity and a copy to the applicant by December 15 so that the preliminary chartering entity can use this information in evaluating the application.

The proposed Charter School is expected to impact on the Local Education Agency in the following manner:

(Describe in the space below and attach any supporting documentation)

Name of Local Education Agency: Chatham, 13-26-01	
Address: P.O. Box 128, 369 West Street, Pittsboro, NC 27312-0128	
Signature of Superintendent:	Date:
Signature of School Board Chair:	Date:

III. MISSION AND PURPOSES

A. DESCRIBE HOW THE SCHOOL'S PROGRAM IMPLEMENTS ONE OR MORE OF THE PURPOSES OUTLINED IN 115C-238.29A

The school's program will include three main elements:

- A challenging academic curriculum.
- A strong discipline and honor code.
- A parent/guardian, student, teacher, school contract.

In combination, these elements will contribute positively to all six of the purposes listed in GS 115C-238.29A:

- 1. Student learning will be improved because:
 - No disruptive behavior will be tolerated in the classrooms.
 - The environment will be safe for all students.
 - The environment will be safe for all teachers.
 - Teachers will be empowered and supported.
 - Challenging homework will be given daily.
 - Class sizes will be small, with 16 students or less.
- 2. The program will help "at risk" students, defined as those that are performing below their potential. This will include academically gifted children who are insufficiently challenged in other public schools:
 - There will be high expectations for all students
 - Students will be pre-tested to ensure that they are working at the appropriate level.
 - From the pre-testing, personal education plans will be provided as needed.
 - Progress will be measured by post-testing, review of portfolios, and other assessments.
- 3. Innovative teaching methods will be encouraged because:
 - The teachers will have the opportunity to influence the curriculum.
 - The staff will be selected for a shared vision of academic excellence.
 - The main objective will be academic achievement.
 - There will be more nationally normed testing to enable performance to be compared to other schools, nationally, and internationally.
- 4. The program will provide professional opportunities because:
 - Teachers will be rewarded for results, and merit, rather than time served.
 - Salaries will be competitive with other public schools in the district.
 - Teachers will have responsibility for and control of the educational environment.
 - Teachers will have opportunities to take leading roles in similar programs elsewhere.
 - Training seminars will be provided for the professional staff.

- 5. By definition, charter schools increase the choices available in public education. They can offer more choices if they:
 - Remain flexible by using their exemption from most public school rules.
 - Establish a level of bureaucracy similar to private schools, which is typically less than that of North Carolina public schools.
 - Allow parents and teachers to influence important issues such as curriculum and budgets.
 - Provide real local management to foster a sense of ownership in the community and a passionate commitment by parents.
- 6. The school will follow the assessment schedules of the other elementary schools in the district to ensure valid performance comparisons. Additional nationally normed testing will be used to facilitate comparisons with schools in other states. Primary assessments will include at least:
 - Academic achievements as measured by test scores.
 - A safe environment as measured by incidents and disciplinary removals.
 - Parental involvement, as measured by volunteer hours per parent or other forms of participation.

B. STATE THE EDUCATIONAL FOCUS FOR THE PROPOSED CHARTER SCHOOL.

115C-238.29B(a) (c) This may include the mission of the school.

NOTE: This one **brief** paragraph summary describes the general mission and purposes of the Charter School and may be used for public relations purposes.

The educational focus of the charter school is to set a new standard in North Carolina for K through 12 education, by motivating all students to achieve their full potential. The goal will be to assist parents in their mission to develop exemplary young citizens with superior academic preparation, equipped with analytical thinking skills, a passion for learning and a virtuous character, all built upon a solid foundation of knowledge.

C. FROM THE APPLICANT'S PERSPECTIVE, STATE THE LIKELY IMPACT THAT THE PROPOSED CHARTER SCHOOL WILL HAVE ON THE COMMUNITY IN WHICH IT PLANS TO LOCATE.

Charter schools have tremendous potential to improve public education. Much has already been achieved in countries as different as Brazil and the United Kingdom. During the last few years charter schools have been established in many states, notably California, Colorado, Arizona and Massachusetts. A recent report by the Hudson Institute (Charter Schools in Action Project, June 1997) covers 60 charter schools in 14 states. The report has "mostly good news" for charter schools. The problems that the Hudson Institute found are the same ones that FREE encountered in setting up our first two charter schools. The more serious problems are described in later sections of this document such as those covering facilities, finance and organization.

While experience in other countries and other states is of great interest, our charter school laws are unique. The potential of North Carolina charter schools can best be understood by examining their likely effect at the local level, given our laws and our government structure.

Although the analyses set out below relate primarily to Orange County, similar situations exist in many other school districts throughout North Carolina to a greater or lesser degree.

Help "at risk" children

FREE decided not to write preferences for "at risk" children into the charter proposals submitted in October 1997. It was and is our intention to resist being pushed out of the main stream of education. We reasoned that children having problems with existing schools would enroll preferentially in our schools. Parents of children who were doing well in the "regular" schools would be far less likely to take such a drastic step.

Our expectations proved to be correct. By every measure, we have significantly higher numbers of "at risk" children than the local averages. We have students with behavior problems brought on by repeating what they have already mastered. We have a five year old child in kindergarten who can handle 9th grade math problems. At the other extreme we have students entering fourth grade who are already two years behind the average student.

At the Village CS, we have a very diverse student population with many religions and ethnic groups represented. For example, 30% of the students are Afro-American compared to 18% across the district. Small schools can better serve children at the extremes of the achievement spectrum because they can offer more personalized education so that no child is allowed to "fall through the cracks". FREE aims to provide a challenging curriculum and small class sizes. This will help all children to do better than they would in huge impersonal schools.

Improve student performance

In other countries there is considerable evidence to show that students in charter schools enjoy higher academic achievement than students in "regular" public schools. It is not yet clear whether the pattern will be repeated in this country because the charter school movement is too small and too new. The first UK charter school law was enacted in 1988 and within 3 years, academic achievement showed measurable improvement. The information in the following table was taken from a "white paper" published by the British government in June 1996. It shows the percentage of students achieving grade "C" or better in six GCSE (General Certificate of Secondary Education) subjects:

	1991/2	1992/3	1993/4	1994/5
Charter schools (GM schools)	39%	41%	43%	45%
"Regular" public schools (LEA schools)	34%	36%	39%	40%

While the above table shows charter schools improving year on year, the "regular" public schools also enjoyed a steady improvement for the first time in over thirty-five years. The most likely explanation is that there are already enough charter schools in the UK (1,100 schools with 700,000 students) to provide credible competition. Charter schools can make a difference when there are too many of them to be ignored!

As our student population is ten times less than that of the UK, North Carolina would need 70,000 students enrolled in charter schools to enjoy a similar level of competition. While this is not likely to happen for several years, charter schools are scattered rather unevenly across our state, so some districts will experience this level of competition within a year. For example, it is possible that in Orange and the adjacent counties (Alamance, Chatham and Durham) there will be a critical mass of charter schools by September 1998 and the other district schools will be forced to do better or watch their enrollments shrink. Experience elsewhere suggests that once

charter schools account for more than 5% of student enrollment, the "regular" schools fight back by getting better. When that happens in North Carolina, there is some reason to hope that we will rapidly progress to a new level of achievement.

Reduction of overcrowding

Charter schools can do a great deal to relieve the over crowding of public schools. Their contribution will be of greatest value in districts that are experiencing rapid growth in student enrollment. According to the NC Department of Public Instruction (Statistical Research Section, 1996), enrollment in Orange County/Chapel Hill-Carrboro will continue to grow:

	Sep '96	Sept '97	Sept '98	Sept '99	Sept '00
Chapel Hill-Carrboro	8,075	8,328	8,550	8,738	8,909
Orange County	5,740	5,867	6,029	6,112	6,227
Total	13,815	14,195	14,579	14,850	15,136
Increase relative to '96	0	380	764	1,035	1,321

In September 1997, three charter schools opened in Orange County with a total enrollment of 370 students. The table below shows how the enrollment in charter schools could grow in or near Orange County if the four schools already approved achieve their goals and one additional charter school opens each year:

\$	Sep '96	Sept '97	Sept '98	Sept '99	Sept '00
Village Charter School	0	110	216	238	260
Orange County CS	0	160	216	238	260
School in the Community	0	102	112	123	136
Odyssey	0	0	65	72	79
Others	0	0	300	600	900
Total number of students	0	372	909	1,271	1,635

In spite of the conservative assumption that only one new charter school will open each year, charter schools may eliminate further over crowding in Orange County public schools, even if no more "regular" public schools are built this century. Unless charter schools are prevented from growing by artificial means, such as restrictive legislation, they will be capable of absorbing the entire growth in student enrollment. Because charter schools can be created in less than a year, they are better able to respond to changes in demand than "regular" public schools.

Reduce the cost of school construction.

Public school construction, like golf course design has become expensive beyond all reason. Too often, the goal is magnificent buildings rather than ones that can provide enough places to match the demand. Here is a list of school construction projects planned in Orange County for completion by the year 2000:

REVISED CHARTER May 3, 1999 Page 9 of 34

Project type	Open	Students	\$Million	\$/student
New elementary school	Aug 1999	600	\$14.5	\$24,167
New middle school	Aug 2000	700	\$22.5	\$32,142
High school expansion	Aug 1999	500	\$14.8	\$29,600
Total	_	1,800	\$51.8	\$28,778

Existing county plans for public school construction have not been adjusted to reflect the impact of charter schools. When charter schools are taken into account it is likely that many existing school projects can be drastically downsized, postponed or even cancelled. For example, in Orange county it is probable that less than one third of the planned capacity for "regular" schools will actually be needed.

The typical charter school is being set up in facilities that cost less than \$5,000 per student. If it turns out that charter schools can deliver an equal or better education given this handicap, it will fuel the debate over what level of construction expenditure is appropriate. Most people will feel that the \$5,000/student is too low and that \$29,000/student is too high. This debate is already under way in Orange County owing to a \$47 million school construction bond on the ballot for November 4. The bond is almost certain to be approved but that will not end the debate on school construction standards.

Today, school construction tends to dominate county bonds. For example, in Orange County, school construction accounts for \$47 million of the \$61 million bond on this year's ballot. Charter schools should have the effect of reducing school construction cost to \$15,000 per student. The required capacity should be reduced by a factor of three (from 1,800 to 600 student places). The combined effect of these two factors could reduce the construction costs from \$52 million to \$9 million. If charter schools prosper in and around Orange County, there could be over \$30,000,000 freed up for other forms of civic improvement.

Small schools are better schools

FREE believes that the decentralization of public education will have many benefits. We have put the control of our school in the hands of the community, and the families of the children who attend the FREE schools. We will continue with this approach.

"Where the control of education is taken out of the hands of the family and the community, and schooling gets further and further away from the people who have a direct stake in it, the quality suffers. It is that which accounts in the largest part, for the deplorable state of American education today."

Human Scale, page 127, by Kilpatrick Sale,

Community involvement and small class sizes

This charter school is based on the precept that self esteem should be earned, not given. This school will concentrate on students producing high quality work or making outstanding efforts. Students will gain skills and work habits that will benefit them and the communities they live in throughout their lives.

Because we encourage parental involvement in our schools, substantial cost savings will be realized. The money saved will be used to hire more teachers. Even though all our teachers are certified, our class sizes are already well below those of other district public schools.

IV. EDUCATION PLAN

A. METHODS OF DOCUMENTING STUDENT SUCCESS:

115C-238-29B(b)(2)

Provide a brief description of the method of documenting student success for the school.

We plan to use the ABCs Accountability Model (i.e., state tests). We expect to achieve a substantial year on year improvement in the achievement of basic skills, as envisaged in the "New ABCs of Public Education" (May 1995).

To ensure direct local comparability, the school will follow the same testing schedule as other public elementary schools in the district and throughout North Carolina. The CHCCS school district testing schedule is:

K through 8 tests	Grades
Metropolitan 7 Achievement Test. (MAT7), nationally normed	6,9
End of Grade tests	6 through 12
Computer proficiency test	8
NC Writing test	7
Iowa Basic Skills test	8,11
PSAT	10,11
SAT	12

Every year the school will apply at least one nationally normed test such as California Achievement Test, Iowa Basic Skills Test or the Metropolitan Achievement Test. This will enable the school to document individual and school wide progress against national averages.

Test results alone are not a sufficient measure of education quality. However, if educators are failing in things that are measurable, it is not reasonable to trust them in things that are not measurable.

The charter school will provide the following information, being part of its obligations under the parent-school contract:

- A written report on each child's progress at the end of each school term.
- Reports on all independent evaluations of the school.
- Tables showing performance on state tests as compared to other local public schools.
- Tables showing expulsions and truancy rates compared to other local public schools.
- Tables showing performance on nationally normed tests.
- An annual report on expenditures and budgets from the school administration.

B. STUDENT ACHIEVEMENT GOALS:

115C-238-29B(b)(2)

Provide a brief description of the student achievement goals for the school if you are NOT using the ABC Model.

We will use the ABC Model.

C. ADMISSIONS POLICIES AND PROCEDURES

115C-238-29B(b)(4), 115C-238.29F(g)

Provide the policies and the procedures for admitting students to the charter school including the "lottery" option if more students apply than the school can accommodate.

This Charter School will abide by all of the admission requirements as set out in GS#115C-238.29F(g), except that paragraph (3) only applies to public schools that have converted to charter status. Under the terms of paragraph GS#115C-238.29F.(g)(6) a timely application will be defined as one received on or before May 17, 1998. This early date is intended to provide enough time for the school to make offers of employment to public school teachers who must give ninety (90) days notice under the terms of GS#115C-238.29F.(e)(3).

All applications received on or before May 17, 1998 will be accepted as of that day. In the event that applicants for any grade exceed capacity, a public lottery will be held on May 17 to allocate the available places. From May 18 onwards, all applications received will be accepted on the day they are received as long as vacancies are available. Once a grade is full, a waiting list will be maintained and if vacancies occur, they will be allocated by lotteries that give all students on the waiting list an equal chance.

D. STUDENT EXPULSION AND EXCLUSION:

115C-238.29B(b)(11), 115C-238.29F(g)(7)

Provide the procedures and grounds for expelling and excluding students from the Charter School.

There will be a strong discipline code at the school, but there will be no provision for corporal punishment. Good manners, regard for others, care of property, honesty, punctuality and reliability are expected. The main sanctions provided by the punishment system are written assignments, after school detention (for unsatisfactory work), detention (for serious or persistent misdemeanors) and double detention (for more serious offenses). For serious breaches of school discipline, a student may be suspended or his parents may be asked to withdraw him/her from the school. The principal and staff will be expected to use common sense and fairness at all times. Expulsion following a first incident will apply to the following offenses:

* Assault on a staff member or another student.

* The use of weapons to

harm another person.

Possession of drugs or alcohol.

REVISED CHARTER May 3, 1999 Page 12 of 34

* Verbal abuse of

teachers.

All day-to-day management of the school, including discipline, will be in the hands of the principal and the school staff as empowered by the principal. A procedure will be provided to enable expulsion decisions and other serious disciplinary measures to be appealed to the Board of Directors. There will be no procedures for referring day-to-day school management decisions to the executive board of the non-profit corporation (FREE).

Disruptive behavior will not be tolerated in the classroom. When easily understood rules combined with a demanding curriculum have been introduced into public schools, the result is usually a sharp drop in the rate of disciplinary removals. We expect that expulsions and exclusions in this Charter School will be at a significantly lower level those that seen in other district schools. For example, when the principal of the Barclay School in Baltimore was given the opportunity to implement a challenging and rigorous curriculum, the rate of disciplinary removals dropped from an average of 9 per year to zero.

E. INSTRUCTIONAL PROGRAM

115C-238.29F(d)(1-5)

Provide a school calendar for a minimum of 180 instructional days for the 1998-99 school year and the overall instructional program, including models, curriculum, design, methods, etc.

Tentative school calendar:

Teacher workdays August 17-31, 1998

School opens September 1 Columbus day holiday October 12

Thanksgiving holiday November 25,26,27 Christmas break December 21-25, 28-31

New Year's day January 1, 1999

Return to school day
Martin Luther King holiday
President's day
Spring break
Memorial day
Last day of school
January 18
February 15
April 2, 5-9
May 31
June 11

Our teacher year will start on August 17 but the students will start two weeks later on September 1. This arrangement allows up to 10 days of staff orientation and training before the students arrive. As this is a new school with new staff, it will also provide opportunities for staff to get to know each other. The above is based on the 1997/8 used at the existing FREE schools. The principal of the Woods CS will work with parents to determine if any changes are needed.

The LEA schools typically have 13 teacher workdays/staff development days during the school year. Families with both parents working have difficulties when schools close in mid week. By shifting most of the staff training to the weeks immediately before school opens, the student attendance will be disrupted to a lesser extent.

Curriculum

A strong academic curriculum will be a cornerstone of the Woods Charter School. Our plan includes the idea that the quality of education will improve if parents and teachers are encouraged to influence the curriculum. We therefore wish to leave some flexibility in the curriculum to provide the teaching staff and the pioneer parents with opportunities to be innovative. The curriculum will be as challenging as we can make it, with a traditional basis:

* Core Knowledge

Foundation (CKF) curriculum.

* The North Carolina standard course of study.

Proven courses, such

as Saxon math

The staff will be asked to ensure that 5th grade students cover all that is expected of 6th grade students in the other district public schools. In spite of this accelerated curriculum, it is anticipated that at least 20% of the school year will be available for additional curriculum content which the principal, teachers, and parents will define. Challenging home work will be introduced on an increasing scale, grade by grade.

One of the FREE directors attended the 7th Core Knowledge Foundation Conference in Denver during the spring of 1997. Some of our existing professional staff plus at least one director will attend the 1998 Conference. Gertrude Williams, Principal of the R.N.Harris elementary school in Durham and Sharon Curle (Curriculum Specialist) have helped us to implement the Core Knowledge curriculum at the Village CS and the Orange County CS. We plan to continue this association for the 1998/9 school year. Sharon Curle has provided training seminars for all of our current professional staff. In the fall of 1998 some of our existing teachers will be able to assist with training the Woods CS staff.

The CKF curriculum covers grades K through 8, so we are seeking a compatible, challenging curriculum for grades 9 through 12. We have contacted Timothy Anderson at the South Shore Charter School in Hull, Massachusetts and he has expressed an interest in acting as a consultant for setting up our high school curriculum. To the best of our knowledge, the South Shore CS is the only CKF high school in the country. It is no coincidence that Dr. E.D.Hirsch Jr. has a grandson attending this school. Sharon Curle has found some IB (International Baccalaureate) high schools that have interfaced successfully with CKF schools. She is researching the situation to provide us with an alternative approach.

The founders of FREE believe that sports, athletics and physical education are important factors in K through 12 education. We will encourage the parent volunteer organization to help students participate in existing programs in the area. The LEA elementary schools rely heavily on sports programs which are not school based and the FREE schools follow the same approach. For example, there is a junior basketball program run by the Carrboro Parks and Recreation Department, Rainbow Soccer and various programs at the Sportsplex in Hillsborough.

Whatever sports programs we are able to organize at high school level will be based on volunteer coaches. FREE will discourage the use of operational funds for paying coaches or other athletics staff.

V. BUSINESS PLAN

A. GOVERNANCE STRUCTURE OF THE PROPOSED CHARTER SCHOOL 115C-238.29B(b)(3), 115C-238.29E(d)

The Woods Charter School, located in the Chatham County School district will be controlled by Financial Reform for Excellence in Education (FREE), a non-profit corporation. The FREE Board members are:

NAME	OCCUPATION ETC.	PHONE
Louise Cole	Woods parent, microbiologist.	919-967-4314
Fred Johnson	Village parent, Treasurer, V.P. of a non-profit corp.	919-408-3001
David Haley	Professional engineer.	919-596-8411
David Kolbinsky	Building sub-contractor	919-732-3049
Peter Morcombe	Village parent, engineer	919-942-5461
Daniel Munn	Secretary, plumbing contractor.	919-542-5338
Thad Talisman	Chair, Orange parent, construction inspector.	919-968-8559
Doval Watson	Village and Woods parent, engineer.	919-967-1748

FREE

The responsibilities and duties of FREE are shown in the bylaws which appear in the appendices. The FREE board believes that any intervention by FREE board members in day-to-day school operations inevitably undermines the authority of the principal. The FREE board wants to resist the temptation to micro-manage the schools. Most operating decisions in the individual schools should be handled by the principal with the support of the staff of the school and the school advisory committee. The main duties of FREE relate to governance and policy making, including financial oversight, starting new schools, hiring principals, funding buildings, negotiating contracts, handling legal issues and charter issues rather than day to day school management. Some services are more economical to provide on a group basis, such as financial services, insurance, health benefits and pensions. FREE retains direct responsibility for these matters.

FREE's budgeting process requires each school to submit a preliminary budget in March of each year. FREE aims to approve each budget within one month. Once a school's budget is approved, the principal has authority over all expenditures within that budget. Salary lists, invoices and other payments must be approved by the principal. The school check book is controlled by a disbursement agent (currently Northstar Consulting Inc.). If a payment approved by the principal is within budget, the disbursement agent will prepare a check through the ISIS system. Each check bears the stamped signature of the appropriate principal.

FREE pays the disbursement agent as well as its board and staff expenses from its own bank account. These activities will be financed by apportioning general expenses to all schools according to their state Average Daily Membership. Expenses on behalf of one school will be charged back to that school only. The apportioning will be calculated by the disbursement agent each month immediately following the closing of each ISIS accounting period.

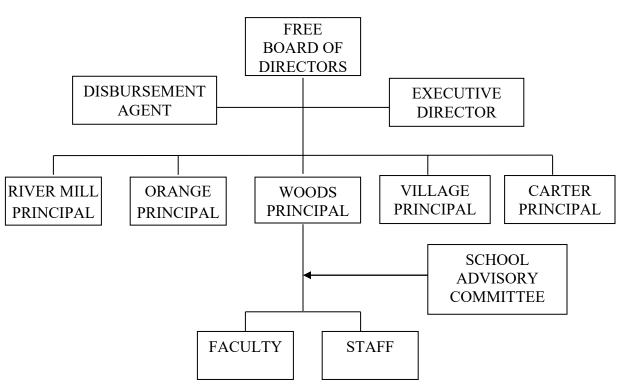
Up to March 1999, FREE had no salaried staff as the income from charges was not sufficient to support even one person. FREE directors have been reimbursed for expenditures made on behalf of the schools but not for their time. From May 1999, the assessment income

REVISED CHARTER May 3, 1999 Page 15 of 34

will be sufficient to support a full time executive director. The duties of the executive director will include identifying new revenue opportunities from federal, state, local and private sources. The executive director will be empowered to manage FREE's business between board meetings.

FREE will maintain a reserve fund for constructing school facilities. This reserve will consist of funds from private sources only.

Organization chart



In order to manage FREE's business between board meetings that occur at least once per month, FREE has an executive committee. Most of the executive committee's duties will be transferred to the executive director, when appointed. The executive director will not be a FREE board member but will be expected to attend all FREE board meetings.

School management

Ideally, all operational decisions should be made at site level. It is intended that each school be run by the principal and staff members as delegated by the principal. The school advisory committee is responsible for working with the principal according to FREE's policies and procedures. The school advisory committee will consist of three parent elected members, one teacher elected member, up to two FREE board members and the principal. The principal has executive authority to manage the school's day to day business.

REVISED CHARTER May 3, 1999 Page 16 of 34

FREE will not delegate any of the following issues:

- Dissolution of the corporation, or its merger or consolidation.
- Amendment of the school bylaws or of the Articles of Incorporation.
- Hiring of the school principal, secretary of the executive committee and CFO.
- Binding of the corporation by any contract or engagement.
- Pledging corporation credit or rendering the corporation liable monetarily for any purpose or in any amount not within the approved school budget.
- Conducting any transaction involving all or substantially all corporate assets or property.

Financial oversight

By North Carolina law, principals do not have the authority to switch money between budget lines. To take a practical example, a principal might decide to purchase some books. If the invoice would exceed the budget for books, the disbursement agent will not issue a check. Even if the principal can show sufficient savings in other areas of spending to cover the book purchase, the check will not be made without FREE board approval. The board has several ways to handle budget variances of this kind. Here are some of the options:

- Give the principal authority to switch funds up to 5% or 10% of any line item.
- Call for a re-budget when the first over budget item is referred to the board.
- Review each over budget item as it occurs.

Formal FREE board approval duly recorded in the minutes, with written notification to the disbursement agent is needed before any principal can be authorized to deviate from any line item in the approved budgets. To date, no such approvals have been given, so every over budget line item must be referred to the FREE board.

B. PROJECTED TYPES OF STAFF AT THE CHARTER SCHOOL 115C-238.29B(12)(e)

Provide a list of <u>all</u> positions anticipated for the Charter School

Permanent salaried positions will include:

•	Principal	1
•	Business manager	1
•	School secretary	1
•	Teachers	9
•	Teacher Assistant	1
•	Custodian	1
•	Bus driver	3

Part time, unpaid positions

FREE board of directors
 The Woods CS Board of Directors
 Parent volunteers
 150 to 300

C. QUALIFICATION REQUIRED FOR INDIVIDUALS EMPLOYED BY THE PROPOSED CHARTER SCHOOL.

115C-238.29B(b)(10)

FREE currently operates two charter schools with a total of 17 teachers. We received over 300 applicants for these positions, so we were able to select very well qualified, experienced staff. All the teachers we hired are certified. Although this application covers high school grades where HB 955 allows up to 50% of the teachers to be non-certified, we do not expect to hire more than three non-certified teachers.

Non-teaching staff will be hired with appropriate qualifications in administration, school bus driving, accounting etc. We are confident of attracting well qualified candidates even though jobs have been plentiful in the heart of North Carolina for some time. For example, last year we received 40 applications for two principal positions, even though it was our start up year. In 1998 we will have much greater credibility and this will help us to attract more well qualified candidates, regardless of the difficulties that the "regular" schools may have with the recruitment and retention of professional staff. We plan to make job offers at least eight weeks earlier this year, to enhance our ability to hire excellent staff.

This document was prepared by Peter Morcombe and Louise Cole. It will be circulated to the FREE Board members, the Village CS Board members, the Orange County CS Board members, Sharon Curle, Dan Deacon and Gertrude Williams.

D. THIS PROPOSED CHARTER REQUESTS TO HAVE FEWER THAN THREE TEACHERS:

115C-238.29B(b)(12)

This Charter School will not request an exemption to employ less than three teachers.

E. PROJECTED STUDENT ENROLLMENT:

115C-238.29B(b)(12)

Identify each Local Education Agency from where the students may come

From: LEA 1 Chatham County Schools

LEA 2 Chapel Hill-Carrboro City Schools

LEA 3 Durham Schools

Grade for		1998-9			1999-0	
	LEA 1	LEA 2	LEA 3	LEA 1	LEA 2	LEA 3
Kindergarten						
1						
2						
3						
4						
5						
6	12.0	12.0	6.0	12.0	12.0	6.0
7	12.0	12.0	6.0	12.0	12.0	6.0
8	12.0	12.0	6.0	12.0	12.0	6.0
9	12.0	12.0	6.0	12.0	12.0	6.0
10	12.0	12.0	6.0	12.0	12.0	6.0
11	12.0	12.0	6.0	12.0	12.0	6.0
12	6.0	6.0	3.0	12.0	12.0	6.0
TOTALS	78	78	39	84	84	42
GRAND TOTAL		195			210	

From our recruiting experiences in 1997, we know that reality stubbornly fails to conform to neat plans such as that shown above. In 1997, we had far too many kindergarten applicants in one school, too few 6th graders in another and insufficient space for 7th and 8th graders in the Village CS. Having two schools fairly close together proved to be very helpful as it enabled us to get a better overall balance through the grades. As the Woods CS will be relatively close to the Village and Orange County charter schools, we hope to see a similar effect in 1998.

REVISED CHARTER May 3, 1999 Page 19 of 34

Out of the *projected* enrollment on the previous page, how many are *projected* to be 'exceptional' children (or children with special needs)?

Exceptional Children						
Count for	1998-9			1999-0		
	LEA 1	LEA 2	LEA 3	LEA 1	LEA 2	LEA 3
Autistic	0.07	0.15	0.04	0.08	0.16	0.04
Academically Gifted	6.55	7.09	3.28	7.06	7.64	3.53
Deaf-Blind	0.00	0.00	0.00	0.00	0.00	0.00
Hearing impaired	0.14	0.13	0.07	0.15	0.14	0.08
Mentally handicapped	1.93	2.15	0.96	2.07	2.32	1.04
Multihandicapped	0.01	0.05	0.00	0.01	0.05	0.00
Orthopedically handicapped	0.02	0.03	0.01	0.03	0.03	0.01
Other health impaired	0.37	0.20	0.19	0.40	0.22	0.20
Pregnant	0.00	0.00	0.00	0.00	0.00	0.00
Behaviorally-Emotionally	0.44	0.83	0.22	0.48	0.89	0.24
Specific learning disabled	3.42	3.43	1.71	3.68	3.70	1.84
Speech -language impaired	2.96	2.11	1.48	3.19	2.28	1.60
Traumatic brain injury	0.01	0.01	0.00	0.01	0.01	0.00
Visually impaired	0.07	0.02	0.04	0.08	0.03	0.04
TOTALS	15.93	16.19	7.96	17.15	17.43	8.58
GRAND TOTAL	40.08			43.16		
Less Academically Gifted	16.92			18.22		
FUNDED TOTAL	23.16			24.94		

FREE cannot afford full time professional personnel to provide some of the mandated services for special education children. We have therefore contracted with Dr. Ken Benedict and Dr. Dan Ridell of Chapel Hill Pediatric Psychology to provide professional IEPs (Individual Education Plans) where appropriate. Similar arrangements will be required at the Woods CS and the expected costs have been included in the expenditure budget.

G. THIS PROPOSED CHARTER REQUESTS TO HAVE FEWER THAN 65 STUDENTS: 115C-238.29B(b)(12)

Our Charter School will not request an exemption to have fewer than sixty-five students enrolled during the year.

REVISED CHARTER May 3, 1999 Page 20 of 34

H. TWO YEAR BUDGET 115C-238.29B(b)(5)

(1) Revenue projections

	1998/9	1999/0	State	ADM	\$/ADM	\$
SOURCE OF FUNDS	\$	\$	Chatham	78	3187	248615
State ADM funds	656,166	734,906	CHCCS	78	3059	238596
County ADM funds	298,107	333,880	Durham	39	3066	119585
City ADM funds	76,440	85,613	Sp. Ed.	23	2132	49370
Federal funds	20,000	22,400	Total	195		656166
Grants	60,000	20,000	County			
Foundations			Chatham	78	1115	86972
Private funds	10,000	15,000	CHCCS	78	1760	137246
Student fees			Durham	39	1895	73889
TOTAL	1,120,714	1,211,799	Total	195		298107
\$/ADM	5,747	6,214	City	78	980	76440

Revenues

The figures listed under "State" and "County" show how the main elements of the 1998/9 revenues were calculated. The 1998/9 grants figure assumes that \$60,000 in federal start up grants will be provided, similar to the \$54,000 per school received in May and June of 1997. The early availability of this money is particularly critical as it is needed to secure and upfit our buildings. This is covered in more detail in the working capital and facilities sections.

Only 1.8% of income (the national average is 6%) is attributed to federal grants because the cost of preparing the paper work exceeds the amount of money available to us under most programs. Our experience with the Village and Orange County Charter Schools leads us to believe that private fund raising will provide more than \$10,000 in the first year but this remains to be proved. The 1999/2000 state and county revenue figures assume that enrollment will increase from 195 to 210 and that revenue per ADM will increase by 4%.

Expenditures

"Regular" public schools have buildings provided for them by the counties, whereas charter schools have to pay for theirs out of operating funds. This item alone represents a handicap of more than 17% of expenditures. As charter schools in North Carolina generally lack adequate sources of working capital, they are forced to lease big ticket items and this pushes up costs. We lack media centers, gymnasiums, cafeterias and many other features that regular schools have from day one. In order to improve facilities in the long term, we must cut our expenses still further to ensure an accumulation of funds for future facility upgrades. These factors leave us with about 25% less to spend on operations than the "regular" schools.

To compensate for the above handicaps we have to do without many of the regular school services. The services we do provide, such as school buses, after school enrichment programs and remedial reading programs depend heavily on parent volunteers. We operate with less administration than the regular schools. All of our salaried administrators are located in the schools. Our "off-site" administrators are all unpaid volunteers serving on the Boards of Directors.

(2) Expenditure projections

USE OF FUNDS	98/9	99/0	1998/9	1999/0
		onnel	\$	\$
Principal	1	1	55,000	57,200
Business manager	1	1	26,000	27,040
School secretary	1	1	22,000	22,880
Teachers	9	11	270,000	343,200
Librarian	0	0	0	0
Guidance	0	0	0	0
Teacher Assistant	1	1	15,000	15,600
Custodian	1	1	15,000	15,600
Maintenance	0	0	0	0
Food service	0	0	0	0
Bus driver	3	3	45,000	46,800
Other	0	0	0	0
	laries		448,000	528,320
& Be	nefits		98,560	116,230
Other expense				
Staff development			8,100	9,900
Materials and supplies			53,853	58,248
Office supplies			5,347	5,783
Purchased services			26,056	28,182
FREE fees			30,420	32,902
Instructional equipm	ent		7,457	8,065
Office equipment			6,997	7,568
Testing materials			5,070	5,484
Insurance			18,525	20,037
Telephone			12,248	13,247
Utilities			10,725	11,600
Rent			198,003	205,923
Maintenance & repair	ir		3,549	3,691
Transportation			37,231	40,269
Marketing			610	635
Food/Cafeteria			0	0
Interest on loans @ 1	10.25%		6,150	0
Other exp	pense		430,341	451,534
Total exp	pense		976,901	1,096,084
Start up & capital			60,000	60,000

The corresponding cash flow forecast can be found in the appendices.

(3) Working Capital /Assets

Most sources of finance are closed to charter schools in North Carolina. While this means that we are in general free of debt, it also means that we are not able to acquire significant assets at start up. FREE could obtain access to large amounts of working capital by making contracts with "for profit" corporations such as Advantage Schools in Massachusetts or Alternative Public Schools in Tennessee. We considered this option carefully but rejected it for two reasons:

- Cost. Contracting with these organizations would have absorbed another 12% of our operating budget.
- **Vision.** These corporations demand control of hiring and most other important school management matters. FREE decided that this would prevent us from maintaining our vision for the schools.

FREE has set up two charter schools with a total enrollment of 270 students. To finance our start up we received \$108,000 in federal grants and a short term (six months) loan of \$60,000. This loan was very expensive because it was unsecured. Our start up costs contrast starkly with the \$8,000,000 that the Orange County Commissioners would spend on buildings to provide the same number of "regular" public school places. They would also be asked to provide \$300,000 for "technology" and other start up costs. Our only significant asset is the \$60,000 that it cost to upfit one of our buildings. This asset has no marketable value. While we have two new school buses, it will be two more years before we have title to them.

Most mainstream sources of finance are not available to FREE owing to GS 115C-238.29B which mandates that we operate as a non-profit corporation. Main street banks and other lending institutions are reluctant to provide loans to non-profits. Also GS 115C-238.29F(i) states that "Upon dissolution of the Charter School or upon the nonrenewal of the charter, all assets of the Charter School shall be deemed the property of the local school administrative unit in which the Charter School is located." This clause deters all but the most hardy lenders.

The lack of assets and corporate net worth proved to be a major obstacle in our search for suitable buildings. For example, the owner of the Village Charter School building insisted on a lease guarantee. If FREE Board members had not agreed to provide personal guarantees, the school would not have opened. As FREE is a non-profit corporation, the Board members do not have a beneficial interest in the schools and they are unpaid volunteers, so one can not expect them to put their personal assets on the line in future.

In Massachusetts, a state loan fund has been established to provide start up finance for charter schools. However, in North Carolina a proposed loan pool for charter schools failed to materialize in 1997. Unless a loan fund or a method of guaranteeing loans is provided, the growth of charter schools in North Carolina will be needlessly slow and painful. FREE is creating a building fund so that in the long term, we can acquire assets and lease them back to our schools. This will take many years if the fund is forced to rely solely on savings from operations.

(3) Program Audits

Gertrude Williams and Sharon Curle have agreed to carry out program audits on a consultant basis.

(5) Financial Audits:

The accounting companies and individuals listed below have stated that they can provide auditing services for non-profit corporations. We expect to be able to appoint one of them to carry out financial audits:

Glenn Spell, CPA, 968-4626 Garrett Dodd and Associates, 383-7026 Apple, Praigg, Carnes and Russell, 490-5711 Carver & Bunch, 929-2149 Neal Bradsher & Taylor, 489-3369

I. HEALTH AND SAFETY REQUIREMENTS

115C-238.29F(a)

Address how the Charter School will meet the requirements for:

(a) Immunization of Students

FREE schools follow local and state health codes. Where necessary, we will help parents arrange immunizations with local health practitioners. For example, the Orange County CS was able to notify parents of a free immunization clinic operating for a limited time at the Hillsborough Medical Center. We will find similar opportunities when the Woods CS opens in 1998.

(b) Fire and Safety Regulations

FREE schools follow local codes for fire and other safety regulations. At the Village school, much of the upfit cost related to meeting fire regulations.

(c) Food Inspections

The Woods CS will have a cafeteria. The nature of the food services provided will be for the Woods Board of Directors to decide, taking into account all relevant laws and common sense. No provision has been made in the school budget for food subsidies as food services are expected to be self funding.

(d) Hazardous chemicals

Some hazardous chemicals are needed for cleaning purposes and it is the custodian's duty to ensure that these are locked in a closet. In the event that hazardous chemicals are needed for science experiments, it will be the duty of the supervising science teacher(s) to ensure that such chemicals are properly stored according to local and state safety codes.

(e) Bloodborne pathogens

The FREE schools follow local and state public health codes. For example, a stock of rubber gloves and antiseptics will be maintained.

(f) Traffic safety

Each school has established a traffic pattern for drop-off and pick-up of children, with a specified bus loading and unloading area. The existing schools have defined safety rules which have been explained to the children. The Woods CS will make similar arrangements.

J. CIVIL LIABILITY AND INSURANCE

115C-238.29F(c)

A summary of FREE's insurance portfolio is shown in appendices.

The Woods CS will have insurance cover which is no less than that of the Orange County Charter School. See appendices.

K. TRANSPORTATION

115C-238.29F(h)

Describe the transportation program/system for students planning to attend the proposed charter school and living within the school district in which the proposed charter school is located.

The Woods CS will be located in Chatham county, close to the border with the Orange county. FREE expects that around 40% of our students will reside in or around Chapel Hill. We plan to provide a bus service covering at least part of Orange county even though HB 955 does not mandate that we do so. FREE has found that running our own buses gives us the ability to arrange all kinds of enrichment activities at minimal cost.

The Village and Orange County Charter Schools have transportation services based on a combination of car pooling and school buses. The arrangements were designed by parent volunteers and they work remarkably smoothly. At present we have two new buses (with air conditioning!) and one "clunker". This works out at one bus per 90 students.

At present, the FREE schools are paying for license tags and fuel as if they were private schools. The budget for the Woods CS assumes that this problem will be resolved by treating charter schools as public schools, because that is what we are.

L. FACILITY

115C-238.29(c)

FREE will provide the name and location of our first choice and back up buildings on a "need to know" basis only. Only two of our Board members know for sure where these buildings are. We have learned from bitter experience how easy it is to lose a building. Last year we found and lost fourteen buildings before we secured those we now occupy. Some buildings were lost because opponents of charter schools discovered what we were doing before we could execute the leases. One was lost because an overzealous parent knew the location (with friends like that, who needs enemies!).

This will be a leased facility, meeting all requirements for fire, safety and handicap accessibility. The anticipated rental cost appears in the expenditure projections.

•	Total area	13,200	square feet
•	Number of classrooms	8	typically 1,000 square feet
•	Number of rest rooms	5	
•	Auditorium/cafeteria	1,200	square feet
•	Library/media center	1,000	square feet

M. MARKETING

Describe the marketing plan for the proposed Charter School, including any long-range plans for recruiting students, expanding facilities and attracting certified and other teachers to the school.

FREE Board members have been very effective in communicating with the general public. Almost all of our media coverage has been provided at no cost. Our paid staff adverts proved so effective that we were able to cancel the planned second phase, thereby saving about \$1,000. Our public meetings have often been "standing room only". In 1998 we will have fewer and more focused public meetings. We will have a very interesting story to tell in the media and we will involve many of our happy parents in our promotional activities in 1998.

FREE was very successful in recruiting students. We were able to recruit more students than the 336 allowed by our charters. However, it was physically impossible to accommodate the planned numbers in the buildings that FREE was able to lease. The very best kind of publicity for FREE will be an announcement that we have secured an additional 12,000 square feet of space for our existing schools. This is proving to be a challenging task in an area with building vacancy rates in the 2-3% range.

- **Public service announcements.** Local radio, cable TV and newspapers.
- Radio commentaries. Ninety-second commentaries via WCHL.
- News coverage. FREE has been featured on local radio and local newspapers.
- Guest columns and "letters to the editor". Some parents and directors write about school issues in the Chapel Hill Herald, the Chapel Hill News, the Herald-Sun, and the News & Observer. See appendices.
- **Public meetings.** Our public meetings have been well attended.
- **Paid advertising.** The approach used last year brought in more than 300 teacher applicants and 40 principal applicants for less than \$1,000. We will stick with what works.
- Fund raising. FREE would like to construct its own buildings. One way that this could be achieved is through donations. FREE and both of the existing schools are actively seeking funds for upgrading school facilities.

BYLAWS

OF

F.R.E.E.

ARTICLE I

Name and Object

Section 1. Name. This Association is incorporated and organized under the laws of North Carolina under the name of "Financial Reform for Excellence in Education" (hereinafter referred to "F.R.E.E.", the association, the organization, or the Corporation).

Section 2. Object. The objects of the F.R.E.E. are for scientific, educational and charitable purposes within the meaning of section 501(c)(3) of the Internal Revenue Code of 1986 and in this connection, will promote the welfare of children and to encourage and promote education excellence to students in grades k-12 throughout North Carolina by establishing and maintaining charter schools pursuant to the North Carolina Charter Schools Act of 1996.

Section 3. Tax Exempt Status. No part of the net earnings of the organization shall inure to the benefit of its members, directors, officers or other persons except that the organization shall be authorized and empowered to pay reasonable compensation for services rendered and to make payments and distributions in furtherance of the exempt purposes of the organization.

In the event of dissolution, all net assets purchased with public funds will be distributed as provided by in N.C.G.S. \$11SC-238.29F(i). Other assets of the organization will be turned over to one or more organizations with similar purposes or to one or more organizations which are exempted organizations described in section 501(c)(3) of the Internal Revenue Code of 1954, if dissolution occurs.

Section 4. <u>Purpose</u>. The purposes for which the F.R.E.E. is organized are exclusively charitable, scientific, literary and educational within the meaning of section 501(c)(3) of the Internal Revenue Code of 1986 or the corresponding provision of any future United States Internal Revenue law.

REVISED CHARTER May 3, 1999 Page 27 of 34

Notwithstanding any other provision of these articles, this organization shall not carry on any activities not permitted to be carried on by an organization exempt from Federal income tax under section 501(c)(3) of the Internal Revenue Code of 1986 or the corresponding provision of any future United States Internal Revenue law.

Upon the dissolution of the corporation, assets shall be distributed for one or more exempt purposes within the meaning of section 501(c)(3) of the Internal Revenue Code, or corresponding section of any future federal tax code, or shall be distributed to the federal government or to a state or local government for a public purpose. Any such assets not so disposed of shall be disposed of by the Court of Common Pleas of the county in which the principal office of the corporation is then located exclusively for such purposes or to such organization or organizations as said Court shall determine which are organized and operated exclusively for such purposes.

ARTICLE II

Membership

Section 1. $\underline{\text{Qualifications}}$. The Corporation shall not have members and the Board of Directors shall be elected as provided herein.

ARTICLE III

Section 1. $\underline{\text{Fiscal Year}}$. The fiscal year of the Corporation shall begin on the first day of July and end on the last day of June in each year.

ARTICLE IV

Board of Directors

Section 1. <u>Number</u>. The property, affairs, activities, and concerns of the Corporation shall be vested in a Board of Directors, consisting of fourteen directors nine of whom shall be referred to as "community representatives" and five of whom shall be referred to as "school representatives". The members of the Board shall, upon election, immediately enter upon the performance of their duties and shall continue in office until their successors shall be duly elected and qualified.

REVISED CHARTER May 3, 1999 Page 28 of 34

- Section 2. <u>Selection of directors and term</u>. At the annual meeting next held after the adoption of these Bylaws, there shall be a election of the eleven directors of the Board. The nine community representatives shall be appointed by the executive committee of F.R.E.E.. The five school representatives shall be elected from each of the five charter schools. The directors shall serve for an one year term subject to renewal. At the expiration of any term, any director may be reelected or reappointed subject to the other terms and conditions herein.
- Section 3. <u>Duties of directors</u>. The Board of Directors may: (1) hold meetings at such times and places as it thinks proper; (2) admit Board members and suspend or expel them by ballot; (3) appoint committees on particular subjects from the members of the Board, or from other members of the Corporation; (4) audit bills and disburse the funds of the Corporation; (5) print and circulate documents and publish articles; (6) carry on correspondence and communicate with other associations interested in the purposes of the Corporation; (7) employ agents; (8) control and have authority over all charter schools in which it holds the charters as herein set forth below and (9) devise and carry into execution such other measures as it deems proper and expedient to promote the objects of the Corporation and to best protect the interests and welfare of the members.
- Section 4. Meetings of Board. Regular meetings of the Board of Directors shall be held immediately preceding and succeeding the annual election. Notice of the meeting signed by the Secretary shall be mailed to the last recorded address of each member at least ten days before the time appointed for the meeting. The Chair may, when he deems necessary, or the Secretary shall at the request in writing of five members of the Board, issue a call for a special meeting of the Board and only five days notice shall be required for such special meetings.
- Section 5. Quorum. A simple majority of members of the Board of Directors shall constitute a quorum for the transaction of business. In the absence of the Chair, the quorum present may choose a Chair for the meeting. If a quorum is not present, a lesser number may adjourn the meeting to a later day, not more than ten days later.
- Section 6. Absence. Should any member of the Board of Directors absent himself unreasonably from three consecutive meetings of the Board without sending a communication to the Chair or Secretary stating his reason for so doing, and if his excuse should not be accepted by the members of the Board, his seat on the Board may be declared vacant, and the Chair may forthwith proceed to fill the vacancy.

REVISED CHARTER May 3, 1999 Page 29 of 34

Section 7. Removal of directors. Any one or more of the directors may be removed either with or without cause, at any time, by a vote of two-thirds of the members present at any special meeting called for that purpose.

Section 8. Order of Business. The order of business shall be as follows at all the meetings of the Corporation, Board of Directors and any Committee established by the corporation:

- (a) Call of the roll.
- (b) Proof of notice of meeting.
- (c) Reading of the minutes.
- (d) Receiving communications.
- (e) Election of officers.
- (f) Reports of officers.
- (g) Reports of committees.
- (h) Unfinished business.
- (i) New business.

Any question as to priority of business shall be decided by the Chair without debate.

This order of business may be altered or suspended at any meeting by a majority vote of the members present.

Section 9. <u>Compensation</u>. For service on the Board of Directors, no compensation shall be received, except that reasonable reimbursement for expenses incurred by any Board member is permitted.

Section 10. Other. As a condition for election as a school representative on the Board of Directors, said individual must have a child attending a charter school operated by the Corporation. If at a later date, any school representative on the Board of Directors ceases to have a child attending a charter school operated by the Corporation, then he can be removed from the Board of Directors as otherwise provided herein.

REVISED CHARTER May 3, 1999 Page 30 of 34

ARTICLE V

Officers

- Section 1. <u>Number</u>. The officers of this Corporation shall be a Chair, a Vice-Chair, a Secretary, and a Treasurer, known as the Executive Committee.
- Section 2. <u>Method of Election</u>. The Board of Directors shall elect all officers for a term of one year, the Chair being elected from the Board of Directors. A majority of a quorum present shall be necessary to constitute an election.
- Section 3. <u>Duties of Officers</u>. The duties and powers of the officers of the Corporation shall be those usual to the respective offices. In addition to the usual and customary duties, the duties for each office shall include the following:
- Chair: moderating meetings, ensuring fairness of the meetings, setting meeting agenda, soliciting topics and issues.
 - Vice-Chair: Assisting Chair, and filling in when Chair is absent.
 - Secretary: Sending meeting notices and arranging meeting locations, preparing meeting agendas, preparing and distributing appropriate records and minutes of the meetings, collecting votes, preparing and maintaining the corporate books and records and ensuring a quorum is achieved for any meeting, and maintaining the corporate seal.
 - Treasurer: Custody of all funds and securities belonging to the Corporation, shall receive, deposit or disburse the same under the direction of the Board of Directors.
- Section 4. $\underline{\text{Vacancies}}$. All vacancies in any office shall be filled by the Board of Directors without undue delay, at its regular meeting, or at a meeting specially called for that purpose.
- Section 5. <u>Bonding.</u> The Board of Directors may require any or all of the Officers of the Corporation to give a surety bond to the Corporation, in an amount satisfactory to said Board, as may time to time be required by the Board of Directors.

REVISED CHARTER May 3, 1999 Page 31 of 34

Section 6. <u>Compensation of Officers</u>. The officers shall not receive a salary or compensation except for reasonable reimbursement for expenses incurred.

ARTICLE VI

INDEMNIFICATION AND REIMBURSEMENT OF DIRECTORS AND OFFICERS

Section 1. Indemnification for Expenses and Liabilities.

- a) Any person who at any time serves or has served:
 - 1) as a director, officer, employee or agent of the Corporation;
 - 2) at the request of the Corporation as a director, officer, partner, trustee, employee or agent of another foreign or domestic corporation, partnership, joint venture, trust, or other enterprise; or
 - 3) at the request of the Corporation as a trustee or administrator under an employee benefit plan, shall have a right to be indemnified by the Corporation to the fullest extent from time to time permitted by law against Liability and Expenses in any Proceeding (including without limitation a Proceeding brought by or on behalf of the Corporation itself) arising out of his status as such or activities in any of the foregoing capacities or results from him being called as a witness at a time when he was not a named defendant or respondent to any Proceeding.
- b) The Board of Directors of the Corporation shall take all such action as may be necessary and appropriate to authorize the Corporation to pay the indemnification required by this provision, including, without limitation, to the extent needed, making a good faith evaluation of the manner in which the claimant for indemnity acted and of the reasonable amount of indemnity due him.
- c) Any person who at any time serves or has served in any of the aforesaid capacities for or on behalf of the Corporation shall be deemed to be doing or to have done so in reliance upon, and as consideration for, the rights provided for herein. Any repeal or modification of these indemnification provisions shall not affect any rights or obligations existing at the time of such repeal or modification. The rights provided for herein shall inure to the benefit of the legal representatives of any such person and shall not be exclusive of any

REVISED CHARTER May 3, 1999 Page 32 of 34

other rights to which such person may be entitled apart from this provision.

d) The rights granted herein shall not be limited by the provisions contained in Sections 55A-17.1 through 55A-17.3 of the North Carolina Non-Profit Corporation Act or any successor to such statutes.

Section 2. <u>Insurance</u>. Corporation shall have the power to purchase and maintain insurance on behalf of any person who is or was a Director, officer, employee or agent of the Corporation, or is or was serving at the request of the Corporation as a director, officer, partner, trustee, employee, or agent of another domestic or foreign corporation, partnership, joint venture, trusts, or other enterprise or as a trustee or administrator under an employee benefit plan against liability asserted against him and incurred by him in any such capacity, or arising out of his status as such, whether or not the Corporation would have the power to indemnify him or her against such liability.

Definitions. The following terms as used in Section 3. this Article shall have the following meanings. "Proceeding" means any threatened, pending or completed action, suit, or proceeding any appeal therein (and any inquiry or investigation that could lead to such action, suit, or proceeding), whether civil, criminal, administrative, investigative or arbitrative and whether formal or informal. "Expenses" means expenses of every kind, including fees. "Liability" means the obligation to pay a judgment, settlement, penalty, fine (including an excise tax assessed with respect to an employee benefit plan), reasonable expenses incurred with respect to a proceeding and all reasonable expenses incurred in enforcing the indemnification rights provided herein. "Director", "Officer", "Employee" and "Agent" include the estate or personal representative of a Director, officer, employee, or agent. "Corporation" shall include any domestic or foreign predecessor of this Corporation in a merger or other transaction in which the predecessor's existence ceased upon consummation of the transaction.

REVISED CHARTER May 3, 1999 Page 33 of 34

ARTICLE VII

Committees

Section 1. $\underline{\text{Committees}}$. The Board of Directors shall appoint such standing or special Committees as it deems necessary for the interests of the Corporation.

ARTICLE VIII

Seal

Section 1. Seal. The seal of the Corporation shall be as more particularly shown in the following impression:

ARTICLE IX

Amendments

Section 1. Amendments. These Bylaws may be amended, repealed, or altered in whole or in part by a two-thirds majority vote at any duly organized meeting of the Corporation. The proposed change shall be mailed to the last recorded address of each member at least ten days before the time of the meeting which is to consider the change.

The	foreg	oing	amende	ed By	ylaws	were	e ado	pted	by	the	Board	d of
Directors	at a	n me	eting	held	on				1999	and	d ord	ered
attested												
meeting.												

REVISED CHARTER May 3, 1999 Page 34 of 34

Charter School Board Member Information Form

Note: To be completed individually by each proposed founding charter school board member. All forms must be signed by hand.

Serving on a public charter school board is a position of public trust and as a board member of a North Carolina public charter school; you are responsible for ensuring the quality of the school's entire program, competent stewardship of public funds, and the school's fulfillment of its public obligations and all terms of its charter.

As part of the application for a new charter school, the State Board of Education requests that each prospective board member respond individually to this questionnaire. Where narrative responses are required, brief responses are sufficient.

The purpose of this questionnaire is twofold: 1) to give application reviewers a clearer introduction to the applicant team behind each school proposal in advance of the applicant interview, in order to be better prepared for the interview; and 2) to encourage board members to reflect individually as well as collectively on their common mission, purposes, and obligations at the earliest stage of school development.

Background

- 1. Name of charter school on whose Board of Directors you intend to serve: UNITY SCHOOL
- 2. Full name: PETER HALEY MORCOMBE

Home Address: 474 THOMPSON ROAD, GRAHAM, NC 27253

Business Name and Address: Telephone No.: 321-474-1708

E-mail address: peter@morcombe.net

- Brief educational and employment history.
 M.A. (Cantab), in Physics & Electrical Engineering. Retired from the Duke university physics department in 2002.
- 4. Have you previously served on a board of a school district, another charter school, a non-public school or any not-for-profit corporation?

No:	Yes:	\boxtimes
-----	------	-------------

- 5. How were you recruited to join this Board of Directors? Why do you wish to serve on the board of the proposed charter school?

 Lam the one recruiting board members. Thus far I have helped create nine charter schools and I.
 - I am the one recruiting board members. Thus far I have helped create nine charter schools and I want to start one more and then hand the reins over to younger people (I am 83 years old).
- 6. What is your understanding of the appropriate role of a public charter school board member? My role is to make parents and children happy by expanding the education choices available.

- 7. Describe any previous experience you have that is relevant to serving on the charter school's board (e.g., other board service). If you have not had previous experience of this nature, explain why you have the capability to be an effective board member.
 At least one Morcombe was enrolled in a K-12 school for 46 consecutive years. I wrote the charters for many schools and served on seven school boards. One of those schools (the Woods Charter School) opened in 1998 and was ranked #1 of the schools in North Carolina SAT rankings only four
- 8. Describe the specific knowledge and experience that you would bring to the board. Reading, Mathematics, Physics, Literature, Philosophy etc. Setting up charter schools and ensuring that they respond to the expectations of the local community.

School Mission and Program

vears later.

- 1. What is your understanding of the school's mission and guiding beliefs? To foster the love of learning.
- 2. What is your understanding of the school's proposed educational program?

 I believe that the CA (Cambridge Assessment) has the broadest and deepest curriculum available.
- 3. What do you believe to be the characteristics of a successful school? Happy parents and engaged students.
- 4. How will you know that the school is succeeding (or not) in its mission? When we see engaged students and growing waiting lists.

Governance

- 1. Describe the role that the board will play in the school's operation. Hire the best principal we can find and empower him/her.
- 2. How will you know if the school is successful at the end of the first year of operation? The first year in every charter school is traumatic. The first year is a success if the school survives into its second year.
- 3. How will you know at the end of five years of the schools is successful? The size of the waiting list will speak volumes.
- 4. What specific steps do you think the charter school board will need to take to ensure that the school is successful?
 - The board needs to make sure that well qualified staff are hired and that they are given all appropriate training.
- 5. How would you handle a situation in which you believe one or more members of the school's board were acting unethically or not in the best interests of the school?

 The founder board has the power to unseat board members who break laws or undermine the charter as it is written.

*Please include the following with your Information Form

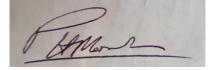
• a *one page* resume

*If you responded within the application that disciplinary action has been taken against any past or present professional licenses, provide a detailed response below outlining the disciplinary action taken and the license validity. Click or tap here to enter text.

Certification

I, Peter Haley Morcombe, certify to the best of my knowledge and ability that the information I am providing to the North Carolina State Board of Education as a prospective board member for the UNITY GLOBAL ACADEMY is true and correct in every respect.

Signature Date July 19, 2021



INSURANCE PEOPLE

Below are the estimated annual premiums for Unity Global Academy

Property Premium Estimate

Building \$4,500,000
Contents \$675,000
Deductible \$1,000
Form Special
Equipment Breakdown Included

General Liability Premium Estimate

\$1,875

\$5,512

Rating Basis: Students 450

Faculty 36

Limits:

Per Occurrence Limit \$1,000,000 Annual Aggregate \$3,000,000

Sexual Abuse & Molestation \$1,000,000 per occurrence

\$3,000,000 aggregate

Employee Benefits \$1,000,000 per occurrence

\$3,000,000 aggregate

School District & Educators Legal Liability (D&O/ E&O)

Premium Estimate \$4,277

\$1,000,000 per occurrence

\$2,000,000 aggregate

Additional Defense \$100,000/\$50,000/\$100,000

Named insured includes the insured Organization (School Entity), it's school board, School Committee, Board of Trustees, Board of Governors or similar governing body, elected or appointed members of the Board of Education, Board of Trustees, School Directors, School Committee, Board of Governors or similar governing board, Employees, Student Teachers, School Volunteers, and students while serving in a supervised internship program sponsored by the "educational institution".

Wrongful Act to include any actual or alleged act, error, omission, misstatement, misleading statement, neglect, or breach of duty by or on behalf of the Insured Organization, including educational malpractice or failure to educate, negligent instruction, failure to supervise, inadequate or negligent academic guidance of counseling, improper or inappropriate academic placement or discipline.

INSURANCE PEOPLE

Fidelity Bond Estimate Limit	\$250,000	\$332
Auto Premium Estimate Five School Buses Limit of Liability	\$1,000,000	\$5,750
Head of Class Endorsement	t	\$82
Workers Compensation Pro Statutory State - NC Employers Liability Payroll Estimate	\$500/ \$500/ \$500 \$1,799,000	\$9,516
Umbrella Premium Estimat Limit of Liability	te \$1,000,000	\$2,387
TOTAL ESTIMATED PRE	\$29,731	
Student Accident Coverage		\$7.00/ student

These premiums are subject to change based on Underwriter review and approval of completed applications.

Disclaimer: The abbreviated outlines of coverages used throughout this proposal are not intended to express legal opinion as to the nature of coverage. They are only visuals to a basic understanding of coverages. The policy terms, conditions, and exclusions will prevail. Please read the policy forms for specific details of coverage

0723/2021

United Global Academy

Appendix E: Daily and Weekly Schedule

Unity Global Academy School Schedule

Kindergarten:

- 8:00 8:30: Unpack/Character Study/Calendar
- 8:30 9:55: ELA: Skills (85 minutes)
- 9:55 10:00: Wiggle Break
- 10:00 10:55: Math (55 minutes)
 - O Exploration Time
 - O Math/Number Talk
 - O Lesson
 - O Guided Practice
 - O Independent Practice
- 11:00 11:30: Lunch
- 11:35 12: 05: Music/Art (30 minutes)
 - O M/W/F Music, T/Th Art the first and third week each month
 - O M/W/F Art, T/Th Music the second and fourth week each month
- 12:10 12:55: PE (45 minutes)
- 12:55 1:10: Travel, bathroom, settling time
- 1:10 1:55: ELA: Listening and Learning (45 minutes)
 - O Small group
- 1:55 2:00: Wiggle Break
- 2:00 2:30: Math (30 minutes)
 - O Problem-solving
 - O Small groups
- 2:30 3:30: Remediation/Enrichment (60 minutes)
 - O Small-Group rotations
 - O Fun Read Alouds
 - O Content-Based Read Aloud
 - O Content-Based video

First and Second Grade:

- 8:00 8:30: Unpack/Character Study/Calendar
- 8:30 10:00: ELA: Skills (90 minutes)
 - O First- and second-grade students who need additional support receive individualized skills instruction.
- 10:05 10:40: Music/Art (45 minutes)
 - O M/W/F Art, T/Th Music the first and third week of the month.
 - O M/W/F Music, T/Th Art the second and fourth week of the month.
- 10:45 11: 15: Math (30 minutes)
 - O Exploration Time
 - O Math/Number Talk
 - O Lesson
 - O Guided Practice
 - O Independent Practice
- 11:20 11:45: Lunch
- 11:50 12: 50: Math (60 minutes)
 - O Exploration Time
 - O Math/Number Talk
 - O Lesson
 - O Guided Practice
 - O Independent Practice
- 12:55 1:40: PE (45 minutes)
- 1:40 1:55 Travel, restroom break, get settled
- 1:55 2:55: ELA: Listening and Learning (60 minutes)
 - O Listening and Learning
 - O Extension
 - O Content-Based Read Aloud
 - O Content-Based video
- 2:55 3:30 Small group (35 minutes)
 - O Remediation/Enrichment
 - O Fun Read Aloud

Third and Fourth Grade:

- 8:00 8:30: Unpack/Character Study/Calendar
- 8:30 10:00: ELA: Skills (90 minutes)
 - O Students who have extreme deficits could travel to a different grade level during this time if necessary
- 10:00 10:45: Math (45 minutes)
 - O Exploration Time
 - O Math/Number Talk
 - O Lesson
 - O Guided Practice
 - O Independent Practice
- 10:45 11:30: Music/Art (45 minutes)
 - O M/W/F Music, T/Th Art 1st and 3rd weeks per month
 - O M/W/F Art, T/Th Music 2nd and 4th weeks per month
- 11:30 12: 15: Math (45 minutes)
 - O Exploration Time
 - O Math/Number Talk
 - O Lesson
 - O Guided Practice
 - O Independent Practice
- 12:15 12:45: Lunch
- 12:45 2:15: ELA: Listening and Learning (90 minutes)
 - O ELA: Extension
 - O Content-Based Read Aloud
 - O Content-Based video
- 2:15 3:00: PE (45 minutes)
- 3:00 3:30: Small group (30 minutes)
 - O Remediation/Enrichment
 - O Fun Read Aloud

Fifth and Sixth Grade:

- 8:00 8:30: Unpack/Character Study/Calendar
- 8:30 10:00: ELA: Skills (90 minutes)
 - O Students who have extreme deficits could travel to a different grade level during this time if necessary.
- 10:00 11:30: Math (90 minutes)
 - O Exploration Time
 - O Math/Number Talk
 - O Lesson
 - O Guided Practice
 - O Independent Practice
- 11:30 11:55: Lunch
- 12:00 12:45: ELA: Listening and Learning (45 minutes)
- 12:50 1:35: Music/Art (45 minutes)
 - O M/W/F Art, T/Th Music 1st and 3rd weeks of the month
 - O M/W/F Music, T/Th Art 2nd and 4th weeks of the month
- 1:40 2:10: ELA: Listening and Learning (30 minutes)
 - O ELA: Extension
 - O Content-Based Read Aloud
 - O Content-Based video
- 2:10 2:40: Small group (30 minutes)
 - O Remediation/Enrichment
 - O Fun Read Aloud
- 2:45 3:30: PE (45 minutes)

Seventh Grade:

- 8:00 8:30: Unpack/Character Study
- 8:30 10:15: ELA: Skills (105 minutes)
 - O Students who have extreme deficits could travel to a different grade level during this time if necessary.
- 10:15 11:15: Math (60 minutes)
 - O Exploration Time
 - O Math/Number Talk
 - O Lesson
 - O Guided Practice
 - O Independent Practice
- 11:20 11:50: PE (45 minutes)
- 11:55-12:20: Lunch
- 12:25-1:10: Math (45 minutes)
 - O Exploration Time
 - O Math/Number Talk
 - O Lesson
 - O Guided Practice
 - O Independent Practice
- 1:10-1:40: History Focus (30 minutes)
- 1:40 2:10: Science Focus (30 minutes)
- 2:15 3:00: Music/Art (45 minutes)
 - O M/W/F Music, T/Th Art 1st and 3rd weeks of the month
 - O M/W/F Art, T/Th Music 2nd and 4th weeks of the month
- 3:05-3:30: Small group (25 minutes)
 - O Remediation/Enrichment
 - O Fun Read Aloud

Eighth Grade:

- 8:00 8:30: Unpack/Core Virtues (25 minutes)
- 8:30 10:15: ELA: Skills (105 minutes)
 - O Students who have extreme deficits could travel to a different grade level during this time if necessary.
- 10:15 10:45: PE (30 minutes)
- 10:55 11:55: Math (60 minutes)
 - O Exploration Time
 - O Math/Number Talk
 - O Lesson
- 12:00 12:25: Lunch
- 12:30 1:00: Math (30 minutes)
 - O Guided Practice
 - O Independent Practice
- 1:00 1:40: History Focus (40 minutes)
- 1:40 2:20: Science Focus (40 minutes)
- 2:20 2:40: Small group (20 minutes)
 - O Remediation/Enrichment
 - O Fun Read Aloud
- 2:45 3:30: Music and Art (45 minutes)
 - O M/W/F Art, T/Th Music 1st and 3rd weeks of the month
 - O M/W/F Music, T/Th Art 2nd and 4th weeks of the month

Charter School Board Member Information Form

Note: To be completed individually by each proposed founding charter school board member. All forms must be signed by hand.

Serving on a public charter school board is a position of public trust and as a board member of a North Carolina public charter school; you are responsible for ensuring the quality of the school's entire program, competent stewardship of public funds, and the school's fulfillment of its public obligations and all terms of its charter.

As part of the application for a new charter school, the State Board of Education requests that each prospective board member respond individually to this questionnaire. Where narrative responses are required, brief responses are sufficient.

The purpose of this questionnaire is twofold: 1) to give application reviewers a clearer introduction to the applicant team behind each school proposal in advance of the applicant interview, in order to be better prepared for the interview; and 2) to encourage board members to reflect individually as well as collectively on their common mission, purposes, and obligations at the earliest stage of school development.

Background

- 1. Name of charter school on whose Board of Directors you intend to serve: UNITY SCHOOL
- 2. Full name: CHERYL LARUE HODGE

Home Address: 304 SUTTON PLACE, MEBANE, NC 27302

Business Name and Address: Telephone No.: 919.423.7480

lend a hand along the way.

E-mail address: CSACCTGBUFF@GMAIL.COM

- 3. Brief educational and employment history.
 BA, Accounting, North Carolina Central University. 30 years experience in accounting industry.
 Nonprofit sector:15 years experience non-profit sector; currently serves as Treasurer and Finance
 Chair for the Greater Durham Black Chamber of Commerce; Bookkeeper for The Religious
 Coalition for a NonViolent Durham; Bookkeeper Asst for White Oak Foundation. Former Treasurer,
 Finance Chair and current financial advisor for StepUp Durham.
- 4. Have you previously served on a board of a school district, another charter school, a non-public school or any not-for-profit corporation?
 No: Yes: X
- 5. How were you recruited to join this Board of Directors? Why do you wish to serve on the board of the proposed charter school?

 Invited by Peter Morcormbe. Our family recently related from Durham to Alamance County and I was open to sharing my time in any way possible to my new community. I hope that someday our grandson will have the opportunity to attend Unity School and know that his "nanna" was there to

- 6. What is your understanding of the appropriate role of a public charter school board member. To make informed, well thought out decisions to help facilitate and navigate the charter school towards achieving its mission.
- 7. Describe any previous experience you have that is relevant to serving on the charter school's board (e.g., other board service). If you have not had previous experience of this nature, explain why you have the capability to be an effective board member.

I currently serve as Treasurer and Finance Chair of The Greater Durham Black Chamber of Commerce (6 yrs). I've also served as Treasurer and Finance Chair of Step Up Durham (1yr).

8. Describe the specific knowledge and experience that you would bring to the board. Fiscal oversight. Attended 6 week Nonprofit Board training with Executive Service Corp, RTP, NC (2019)

School Mission and Program

- 1. What is your understanding of the school's mission and guiding beliefs? To foster learning through interactive and creative approach
- 2. What is your understanding of the school's proposed educational program?

 As a potential new board member, I'm in the early stages of learning about the proposed program of Cambridge Assessments.
- 3. What do you believe to be the characteristics of a successful school? Students who look forward to attend school and are excited to learn.
- 4. How will you know that the school is succeeding (or not) in its mission? When we see engaged students and growing waiting lists.

Governance

- 1. Describe the role that the board will play in the school's operation. Strategic oversight of operations and fiscal policy.
- 2. How will you know if the school is successful at the end of the first year of operation? The first year in every charter school is traumatic. The first year is a success if the school survives into its second year.
- 3. How will you know at the end of five years of the schools is successful? The size of the waiting list will speak volumes.
- 4. What specific steps do you think the charter school board will need to take to ensure that the school is successful?
 - The board needs to make sure that well qualified staff are hired and that they are given all appropriate training.
- 5. How would you handle a situation in which you believe one or more members of the school's board were acting unethically or not in the best interests of the school? Bring the matter to the attention of the Executive Director/President

*Please include the following with your Information Form

• a *one page* resume

*If you responded within the application that disciplinary action has been taken against any past or present professional licenses, provide a detailed response below outlining the disciplinary action taken and the license validity. Click or tap here to enter text.

Certification

I, Peter Haley Morcombe, certify to the best of my knowledge and ability that the information I am providing to the North Carolina State Board of Education as a prospective board member for the UNITY Charter School is true and correct in every respect.

Signature Date		
Date		

Charter School Board Member Information Form

Note: To be completed individually by each proposed founding charter school board member. All forms must be signed by hand.

Serving on a public charter school board is a position of public trust and as a board member of a North Carolina public charter school; you are responsible for ensuring the quality of the school's entire program, competent stewardship of public funds, and the school's fulfillment of its public obligations and all terms of its charter.

As part of the application for a new charter school, the State Board of Education requests that each prospective board member respond individually to this questionnaire. Where narrative responses are required, brief responses are sufficient.

The purpose of this questionnaire is twofold: 1) to give application reviewers a clearer introduction to the applicant team behind each school proposal in advance of the applicant interview, in order to be better prepared for the interview; and 2) to encourage board members to reflect individually as well as collectively on their common mission, purposes, and obligations at the earliest stage of school development.

Background

- 1. Name of charter school on whose Board of Directors you intend to serve: Unity Global Academy
- 2. Full name: William B Bosley

Home Address: 1648 Palmer Dr, Graham NC 27253

Business Name and Address: N/A Telephone No.: (336)290-4541 E-mail address: wbosley@gmail.com

3. Brief educational and employment history.

Carnegie Mellon University – Masters of Entertainment Technology 2005 Ohio State University – BA Technical Theatre 1994

University of North Carolina at Chapel Hill – various positions 2008 – Present Carnegie Mellon University – faculty Entertainment Technology Center 2005 - 2008

	carriegie Weilori Oniversity
4.	Have you previously served on a board of a school district, another charter school, a non-public school or any not-for-profit corporation? No: X Yes: \[\begin{align*} \text{Yes:} \text{\text{Yes:}} \text{Yes:}
5.	How were you recruited to join this Board of Directors? Why do you wish to serve on the board of the proposed charter school? Recruited by Chairman. Parent of Special Needs Children and former licensed Foster Parent.

6. What is your understanding of the appropriate role of a public charter school board member?

My role as a board member is to set policy, maintain the **UGA** vision and mission, advocate for educational excellence, visionary leadership and high-quality services as well as to ensure that the school complies with its charter and applicable laws.

7. Describe any previous experience you have that is relevant to serving on the charter school's board (e.g., other board service). If you have not had previous experience of this nature, explain why you have the capability to be an effective board member.

Interdisciplinary collaboration and leadership has been my professional purview for more than 30 years -- add to that my 19+ years as an advocate for my Special Needs and foster children as well as the mentorship I provide my university students, and I understand the challenges and rewards of education as well as the limits of the inherent bureaucracy.

8. Describe the specific knowledge and experience that you would bring to the board. Effective cross-disciplinary communication, extensive experience with various technologies relevant to K-12 education, educational ethics training, cultural sensitivity training, Safe Space training

School Mission and Program

- 1. What is your understanding of the school's mission and guiding beliefs?

 Providing agency to the local learning community with a rigorous curriculum that also incorporates experiential learning and interdisciplinary study and instruction.
- What is your understanding of the school's proposed educational program?
 Based on the Cambridge Curriculum, which has proven successful in other charter schools around the globe.
- 3. What do you believe to be the characteristics of a successful school? Transparency, Communication, Shared Vision & Values
- 4. How will you know that the school is succeeding (or not) in its mission? Formal and informal feedback mechanisms, extensive communication channels between faculty, management, students and parents/advocates

Governance

- 1. Describe the role that the board will play in the school's operation. Primarily Overview and a central communication hub
- 2. How will you know if the school is successful at the end of the first year of operation? Faculty interviews, parent polling
- 3. How will you know at the end of five years of the schools is successful? Faculty interviews, parent polling, student achievement, sibling retention
- 4. What specific steps do you think the charter school board will need to take to ensure that the school is successful?
 Ensure effective communication, shared vision and managerial transparency where possible
- 5. How would you handle a situation in which you believe one or more members of the school's board were acting unethically or not in the best interests of the school? Share my concerns with the complete board, retain documentation of any improprieties to be remitted to the NCSBE and/or relevant authorities if necessary.

*Please include the following with your Information Form

• a one page resume

	that disciplinary action has been taken against any past or etailed response below outlining the disciplinary action taken to enter text.
	, certify to the best of my knowledge and ability that the
	Carolina State Board of Education as a prospective board
, ,	Charter School is true and correct in every respect.
Signature	<u>lef</u>
DateJuly 20, 2021	

CHERYL L.HODGE, CTP

(919)423.7480 csacctgbuff@gmail.com.

304 Sutton Place, Mebane, North Carolina 27302

Results-driven professional with detail-oriented, analytical approach offering extensive experience in treasury management, general ledger analysis, financial reporting, and internal/external audit coordination. Ability to analyze data, interpret and evaluate results, and develop high performing solutions. Proficient in advanced Microsoft Excel, Quickbooks, and complex accounting software applications.

PROFESSIONAL EXPERIENCE

IAT INSURANCE GROUP Raleigh, NC

1.5 years - Present

SENIOR ACCOUNTANT

Manage all aspects of banking functions and serve as primary bank liaison.

- Create process improvements for banking and cash management
- Responsible for reconciling over 80 bank accounts in excess of \$300M for multiple subsidiary companies.
- Investigate discrepancies in general ledger balances to supporting documentation and remediate accordingly.
- Integral member of various software conversion teams.

NORTH CAROLINA MUTUAL LIFE INSURANCE Durham, NC

4 years

MANAGER OF CASH MANAGEMENT AND PAYABLES

Manage all aspects of cash management, primary bank liaison, and supervision of Accounts Payable Accountant.

- Formulate cash position and projections to strategically manage \$1M-\$2M cash for operations.
- Oversee accounting of \$25M investment portfolio formalizing recommendations of security acquisitions and disposals for cash management.
- Oversight of premium taxes, guarantee assessment tax, and 1099 reporting.
- Demonstrate accuracy assisting with quarterly and annual statement preparation, footnotes, exhibits for financial reporting and internal and external audits.
- Integral member of various software conversion teams

NORTH CAROLINA MUTUAL LIFE INSURANCE Durham, NC

4 years

TREASURY SERVICES SUPERVISOR

Supervised bank reconciliations, oversight of premium tax and 1099 taxes, and supervised Accounts Payable Accountant.

- Month-end closing and financial statement preparation.
- Analyzed and reconciled asset and liability accounts.
- Optimized team performance of internal and external financial reporting.

NORTH CAROLINA MUTUAL LIFE INSURANCE Durham, NC

3 years

SENIOR ACCOUNTANT

Prepared bank reconciliations, journal entries and, coordinated banking transactions.

- Facilitated all banking transactions, serving as primary bank contact. Reduced bank fees by converting 90% of reinsurance payments from checks to ACH.
- Implemented conversion of systematic journal entry process.

BUILDERS MUTUAL INSURANCE COMPANY · Raleigh, NC

8 years

ACCOUNTANT

Supervised bank reconciliations and oversight of accounts payable functions.

- Executed all online banking functions while serving as primary bank liaison.
- Formulated recommendations to improve overall bank reconciliations process.
- Maximized corporate investment potential by transferring funds in excess of \$14M.
- Managed database of fixed asset and depreciation schedules and reported annual property tax filing.
- Streamlined escheat payments process.
- Assisted Controller with financial statement filings.

919.423.7480 • csacctgbuff@gmail.com

304 Sutton Place, Mebane, North Carolina 27302

CLEMSON UNIVERSITY•Clemson, SC

8 years

SENIOR ACCOUNTANT

Oversight of Clemson Research Foundation financial accounting and Clemson Foundation banking functions.

EDUCATION & CREDENTIALS

CERTIFIED TREASURY PROFESSIONAL (CTP)

BACHELOR OF BUSINESS ADMINISTRATION, MAJOR IN ACCOUNTINGNORTH CAROLINA CENTRAL UNIVERSITY, SCHOOL OF BUSINESS, DURHAM, NC
MAGA CUM LAUDE

"THE SUCCESS OF CHARTER SCHOOLS" HEARING

BEFORE THE

COMMITTEE ON EDUCATION AND THE WORKFORCE HOUSE OF REPRESENTATIVES ONE HUNDRED SIXTH CONGRESS

SECOND SESSION

HEARING HELD IN WASHINGTON, DC, SEPTEMBER 28, 2000

STATEMENT OF MS. ANITA OLINGA, FOUNDER AND PARENT, CARTER COMMUNITY SCHOOL, DURHAM, NORTH CAROLINA

Ms. Olinga. Mr. Chairman, thank you for inviting me here to talk about Carter Community School. Our mission is success for every child. I have three children at Carter Community School, Gabe, Tony, and Katy. Starting a charter school is very much like being a parent. It sounds like a good idea. Other people who have done it will encourage you. By the time you find out what you are in for, it is too late to change your mind. Then one doesn't seem like enough. That is why I currently have another charter application before the North Carolina State Board of Education.

I started Carter in 1997. I have three children who receive special ed services. I had attended workshops; I had read books and articles. Why wasn't there a school, a good school, which would work with me? It seemed as though the traditional public schools wanted to guard their special services closely so as not to give out too much and nobody but nobody was willing to translate special educationese into plain English for me, so Carter Community School was conceived.

With help from an organization that had started two other charter schools, I wrote the charter and they submitted it to the state. When it got approved a few months later, many people were shocked, while I was not. It was time.

We opened in 1998 with 60 students the first day, and 40 more to come during the first year. We expanded to 150 the second year and we now have 190 with a waiting list. Our population is predominantly inner city, low-income minority students, with about 30 percent of our students identified as exceptional education students. This is the how and why Carter got started.

Now let me tell you what Carter has done since then by sharing the stories of our students.

The first parent that I recruited from the homeless shelter had two school-aged children, both with special needs. I told her about the school and what we would offer her children. She shared with me the terrible experiences she had had at other schools, and then we both cried. Here was someone we could help and we have. Those children have continued to attend Carter Community School, and are thriving.

We continued to seek out children from the shelters, children with exceptionalities, children on probation, and children in difficult situations. We sought out the families and children that needed us.

One of our parents had been told by the experts that her daughter should be in a self-contained classroom for severe and profound children. She knew that was wrong. Now her daughter is in the second grade reading and working hard alongside other children.

My own daughter has cerebral palsy. Until the middle of her second grade year she attended a traditional public school with 900-plus students. Everybody loved Katie at her old school, and she loved everybody. She was the only one in a wheelchair and the only one with a visible physical disability. When she came to Carter, there was an eighth grader who also had cerebral palsy and used a wheelchair. She and Amelia would meet each day after school in the hallway making what looked like small talk to the outside world, but was monumental communication for a child who never had a role model, and for a girl who had never been a role model. Even though Amelia was in eighth grade and Katie was in second grade, their friendship was meaningful and important to both of them. Amelia finally had someone look up to her, someone she could be a big sister to, someone who admired her.

Those were intangible and immeasurable gift experiences for these girls, but ones that affected both of them and changed them for the better.

Our first day of our second year a child, lets call him Robert, stood up in the six grade and asked the teacher, is this the BEH class? That stands for behavioral and emotionally handicapped. The teacher told him, no, this is the sixth grade. A minute later he raised his hand. Again he asked, is this the 6th grade BEH classroom?

The teacher replied, no, son, this is the sixth grade. You are in the sixth grade. You are not in a BEH classroom. He had never been outside of a BEH classroom his entire school life.

The first few weeks he was at Carter we were not sure we could make a successful experience for him. He had to be restrained numerous times a day. But the principal, an incredible saint named Becky Sterling, and the teaching staff, stood by him. His therapist visited him weekly at school. We all loved him and encouraged him and praised him when he did right. And little by little he got more praise and needed to be restrained less and less. He made some friends and learned more in one year than he had in previous years. By the end of the year, Robert was just one of the kids with good and bad days. When he moved to another city that was too far away for him to attend Carter, much of the staff cried.

At Carter Community School, one thing is expected. We expect the kids to do their best. Sometimes nobody knows what that is because it has never been required of these kids before. With my own daughter, we didn't realize that she couldn't read at all until she came to Carter. She had learned how to get along, how to get people to help her to the point of doing her work, and nobody noticed. Katie works harder than she has ever worked. She is learning both in and out of the classroom. She has learned about Vikings, oceans, divisions and fractions, how to play well with others, be nice and share, and that the wheelchair she uses to get around in doesn't entitle her to special privileges. She has to work hard like everybody else.

I would like to close with a story I heard that has guided me over the years. An old man is on the beach at low tide throwing back starfish. A young man walking past stops and observes and then says to the old man, why are you so foolish? Look at all the starfish on the beach. Surely you know you cannot make a difference. To which the old man says as he throws one more back, I made a difference for that one.

Anita Olinga SEPTEMBER 28, 2000

Louise E. Cole

4534 Farrington Rd., Durham, NC 27707, (919)-260-8186

Academic Background:

BS: Microbiology-Biochemistry-Brigham Young University, Provo, Utah 84601

Post BS: Courses: Personnel & Time Management, Organizational Behavior, Communication /Human Relations, Technical Writing, Industrial Safety, Immunology, Microsoft Office, Publisher. Certified: CPR & First Aid

Career History: 1990-91: Real Estate Salesman & Broker's License

1998-Present: License with Remax/Performance/Morrisville since 2/2014 Average 15 transactins per year

General Brokerage Realtor/Broker: Coldwell Banker/Howard Perry & Walston. Work with buyers & sellers with an average 25 contracts per year.

Relief agent for New Home Sales w CB/HPW. CB Diamond society from 2002-2010 Eight years in top 5% of Chapel Hill Office, w several awards- highest Listings or Sales. Volunteered w Habitat For Humanity homes several times along with other activities like Toys for Tots, UNC Lineberger Cancer Research Fund raising, Paint the Town Pink, etc

1985-1998: Renovations & Construction

Founder and Director: FREE Charter Schools (Financial Reform for Excellence in Education, 1995-2001), (Four members) Started 6 Charter schools in area. Obtained buildings/leases for schools. Helped w construction & renovations.

Microbiologist: Environmental Protection Agency, RTP, NC, (1984-1996) Environmental Research: Pulmonary inflammatory response to airborne pollutants.

Research Technician III: (part-time): UNC Electron Microscopy Lab, & Infectious Diseases, NCMH; Medical Technologist- UNC: Immunopathology Lab, Clinical Phlebotomist: UNC Hospital (1980), /Bacteriology /Blood Drawing Lab

Forensic Chemist: USACIL Europe (1972-1976) US Army Criminal Investigation Lab-Frankfurt, West Germany// Identified illicit drugs; expert witness at military & civilian trials involving the identification of Narcotics and Dangerous Drugs.

Microbiologist: Deseret Test Center (1967-1972) (Department of Defense), Dugway Proving Grounds, Utah: Research Environmental Microbiologist/Bio Warfare

Licenses: Current NC State Broker's License since 1991.

Personal: Married; 6 children; & 18 grandchildren

Hobbies: Crafts, construction and renovation, sewing, hiking, landscaping, genealogy.

REFERENCES: Available upon request

GENEROSITY

Operators of charter schools know that it is possible to deliver education of a high quality without adequate facilities or state of the art equipment. Socrates showed that advanced concepts can be taught under a shady tree. However, every charter school wants to provide the libraries, science labs, media centers, computer clusters, auditoriums, gymnasiums, cafeterias, car parks and sports fields that the "regular" public schools have. I suspect that most charter school operators thought (as I did) that it would take ten years to bring their equipment and facilities to a competitive level, without the capital funding that the "regular" public schools receive.

Over the last two years, I have prepared proposals for six charter schools. Five of these are already operating and the sixth will open in the fall. While the budgets worked out fairly well, it turns out that I neglected a very important factor. I completely underestimated the power of generosity! Our schools have received bequests from individuals and equipment from corporations large and small. In the equipment category, we have received one hundred and twenty IBM 486 computer systems, 100 printers, Ethernet systems, and two container loads of furniture. The value of equipment donated already exceeds \$2 million and it keeps on coming! Donations have been made by Lab Corp, Interpath Communications, Cabletron, several departments at UNC-Chapel Hill, East Carolina University, Cisco Systems, 3COM and many more.

Peter Morcombe FREE board member June 7, 1999

RENTING CHARTER SCHOOL BUILDINGS

The Unity Global Academy

This school will open in a rented building in August 2023. FREE has not identified a building since it would be premature for a school opening so far in the future.

Finding the Right Building

FREE has opened six schools in rented buildings. We get much better deals than most charter schools thanks to Louise Cole's experience and negotiating skills. We **NEVER** close a deal more than five months ahead of the school opening date.

In all six of our previous schools we looked at a minimum of ten properties and in one case we considered fourteen different buildings. The biggest mistake one can make when looking for rented accommodation is to focus on just one building. Many things can go wrong when negotiating for a building so it is essential to consider multiple buildings. Also potential landlords are less likely to drive a hard bargain when they know that we are considering other options.

By negotiating on multiple buildings FREE has achieved a 100% success rate (6 out of 6). While there is always a chance that we will fail, our batting average is excellent so far.

END

April 8, 2022 Page 1 of 1

Presentation to the Alamance-Burlington Board of Education on June 22, 2000

Introduction

My name is Peter Morcombe and I am speaking on behalf of Financial Reform for Excellence in Education, otherwise known as FREE. This is an organization dedicated to creating and operating charter schools. To date, FREE has set up five charter schools with 900 students. One of these, the River Mill Charter School, has been operating in Saxapahaw since August 1998 and we seek to set up another in Altamahaw.

Charter schools and Alamance County

I ask you to consider what inventions provide the greatest benefit to the United States of America. Would you vote for Television? Nuclear power? The automobile? Modern water and sewage treatment systems? Antibiotics? Microsoft Windows? Many people believe that the most important inventions are not based on science or engineering but on the rule of law. These are things that you do not think about until they are taken away. The top of my personal list is "due process" that ensures that we will not be deprived of life or liberty without cause. In second place comes public education, available to everyone regardless of gender, wealth or any other factor.

Public education is a wonderful thing doing immense good for hundreds of millions in this country but the costs are rising at an alarming rate. The impact of rising costs is often most severe at the county level as constructing public school buildings is one of the duties of county government.

That is where charter schools come in. We are the most important part of a revolution in public education that will help to raise academic performance across the entire country, while holding taxes down. Some say that charter schools want to destroy public education. That is nonsense because charter schools are part of public education. Our role is to serve the community as well as possible. We charter schoolers represent the best hope for the reform of K through 12 education in North Carolina but reform is always difficult, dangerous and uncertain of success. We have passionate enemies in those who benefit from the status quo and only lukewarm defenders in those who benefit from reform. The lack of ardor in our friends arises partly from fear of our opponents who have the laws on their side and partly from a lack of confidence in anything new. Thus when we make a misstep, those who are hostile attack with vigor while our friends do nothing or defend timidly.

How can charter schools serve the Alamance-Burlington school district? We can provide a broader range of education choices for parents. We can reduce the pressure on county finances by creating new school capacity without the need for raising taxes. By setting up the River Mill CS in Saxapahaw with 275 students we saved Alamance County at least \$4 million for construction alone. A similar school could be created in the Clover Garden School building north of Burlington with 320 students and a potential saving of more than \$5 million.

Let's look at charter schools from the top down. In September 1997, President Clinton said "Pretty soon – and if all the states will join in – we'll have well over 3,000, perhaps even 4,000 [charter schools] by the year 2000, which is enough to have a seismic echo effect in all the public school systems of America. The only way public schools can survive...is if all our schools eventually and, hopefully sooner rather than later are run like these charter schools". Fine words but not just empty rhetoric. Four months earlier, Clinton created thirty three charter schools in North Carolina by sending each of them \$56,000 in federal start up funds. Without this money, few of these schools would have opened. The federal government also sends operating funds for every student enrolled this year.

June 22, 2000 Page 1 of 2

At the state level, legislators Wib Gulley (Durham) and Steve Wood (Winston Salem) created charter schools when they wrote House Bill 955, enacted in 1996 with the support of the House majority leader, Leo Daughtry.

The implementation of HB 955 and the subsequent SB 297 was entrusted to the State Board of Education and to Mike Ward, the state Superintendent. Mike oversees more than 2,000 public schools and a \$6 billion budget. Even if he did nothing else, he could not hope to visit every public school and yet he chose to visit the Village Charter School for their 8th grade graduation ceremony on June 9. Likewise, Phil Kirk, chairman of the State Board of Education was the keynote speaker at the River Mill CS commencement ceremonies on May 30. Drs. Kirk and Ward created charter schools by sending them money. This year they sent about \$4,500 per student or 10 times more than the federal government provided. Remember the golden rule "He who has the gold makes the rules".

The Alamance County Commissioners created our charter schools. They are sending over \$1,000 per student or more than twice the amount provided by the federal government.

What would have happened to any of these schools if only fifty students had shown up in the fall? None of them would have lasted a year! So the parents created our charter schools because they made them financially viable. Parents continue to support and strengthen us through their commitment to volunteering.

Principals create charter schools. Just like other public schools we have principals who really care about children and about quality education. However our principals have less red tape and more opportunities to be innovative. Teachers create charter schools. Our schools employ well qualified and dedicated teachers. Our teachers appreciate the small class sizes (typically less than 20 students). Support staff create charter schools. What would it be like without the school secretary, the bus drivers and janitors? I really do not want to find out.

But more than anyone else, the students create charter schools. They are the point and the purpose. They make each school what it is today and influence what they will be tomorrow by the example that they set.

Why do parents enroll their children in charter schools? Our buildings are much less impressive than those of other public schools. However, many parents appreciate having choices in education more than they value beautiful buildings. Only those charter schools that can attract and retain their students will survive because attendance is voluntary.

The FREE schools are Core Knowledge schools which is why our 8th graders have studied India, China and South Africa. They also studied the U.S. constitution and civil rights. For contrast they studied communism. What use is any of this in preparing for "End of Grade" testing. None at all! So why teach this stuff if you don't need it to shine at testing time? The CKF curriculum is based on the concept of "Cultural Literacy" and it is designed to help students understand US culture and that of many other countries as well. The kids know that this is important information but it is also so interesting that a thirst for more knowledge often follows.

This school district needs to build the equivalent of a six hundred student school each year at a cost of over \$10 million. While charter schools cannot solve the entire growth problem, we can at least help to reduce the over crowding and the number of trailers used as makeshift class rooms. FREE would welcome an opportunity to work constructively with this school district to set up the Clover Garden School with approximately 320 students. FREE is eager to build the same kind of harmonious relationship here as we have in Chapel Hill-Carrboro and in Orange County.

Charter School Board Member Information Form

Note: To be completed individually by each proposed founding charter school board member. All forms must be signed by hand.

Serving on a public charter school board is a position of public trust and as a board member of a North Carolina public charter school; you are responsible for ensuring the quality of the school's entire program, competent stewardship of public funds, and the school's fulfillment of its public obligations and all terms of its charter.

As part of the application for a new charter school, the State Board of Education requests that each prospective board member respond individually to this questionnaire. Where narrative responses are required, brief responses are sufficient.

The purpose of this questionnaire is twofold: 1) to give application reviewers a clearer introduction to the applicant team behind each school proposal in advance of the applicant interview, in order to be better prepared for the interview; and 2) to encourage board members to reflect individually as well as collectively on their common mission, purposes, and obligations at the earliest stage of school development.

Background

- 1. Name of charter school on whose Board of Directors you intend to serve: Unity Global Academy
- 2. Full name: Louise E Cole

Home Address: 4534 Farrington Rd, Durham, NC 27707

Business Name and Address: Remax Performance, 2671 HWY 55 Cary, NC 27519

Telephone No.: 919-260-8186

E-mail address: louisecole@remax.net

- 3. Brief educational and employment history. Resume attached
- 4. Have you previously served on a board of a school district, another charter school, a non-public school or any not-for-profit corporation?

	—		
No:		Yes:	X

5. How were you recruited to join this Board of Directors? Why do you wish to serve on the board of the proposed charter school?

By my former FREE Board comember

- 6. What is your understanding of the appropriate role of a public charter school board member?

 To help in the startup of the Charter, making sure it is running smoothly, anticipating hiccups etc.
- 7. Describe any previous experience you have that is relevant to serving on the charter school's board (e.g., other board service). If you have not had previous experience of this nature, explain why you have the capability to be an effective board member.
 - On the Board of Free where we started 6 other Charter Schools during the 1996-2000 time period.

8. Describe the specific knowledge and experience that you would bring to the board. Helping with 6 other startups, hiring, buildings, etc. I found the buildings leases/purchase of.

School Mission and Program

- 1. What is your understanding of the school's mission and guiding beliefs? To have the parents intimately involved in their children's education
- 2. What is your understanding of the school's proposed educational program? Cambridge is one of the best curricula globally
- 3. What do you believe to be the characteristics of a successful school? Education is a 3 legged stool, w parents, children and teachers all striving for a common goal
- 4. How will you know that the school is succeeding (or not) in its mission?

 By retention, SAT Scores, EOG etc, graduation rates and then successful entrance to colleges.

Governance

- 1. Describe the role that the board will play in the school's operation. Startup, hiring, guidance, especially financial
- 2. How will you know if the school is successful at the end of the first year of operation? Retention
- 3. How will you know at the end of five years of the schools is successful? Retention and graduation rates
- 4. What specific steps do you think the charter school board will need to take to ensure that the school is successful?
 Meetings with parents, teachers and students
 - weetings with parents, teachers and students
- 5. How would you handle a situation in which you believe one or more members of the school's board were acting unethically or not in the best interests of the school? First there would have to be proof and then let the other board members vote on it.

• a *one page* resume

*If you responded within the application that disciplinary action has been taken against any past or present professional licenses, provide a detailed response below outlining the disciplinary action taken and the license validity. Click or tap here to enter text.

Certification

I, _Louise E Cole__, certify to the best of my knowledge and ability that the information I am providing to the North Carolina State Board of Education as a prospective board member for __Unity Global Academy__ Charter School is true and correct in every respect.

^{*}Please include the following with your Information Form

Signature Date. 6/19/2021

Presentation to the Alamance County Commissioners March 21, 2022

Introduction

My name is Peter Morcombe and I am speaking on behalf of Financial Reform for Excellence in Education, otherwise known as FREE. This is an organization dedicated to creating and operating charter schools. To date, FREE has set up six charter schools including two that are located in Alamance county, namely the River Mill Academy and the Clover Garden school. These schools are deservedly popular and they currently have 1,500 students enrolled.

River Mill Academy

Last month a lottery was held at the RMA to allocate places that will be available to parents in August of this year. This is a large school so one might expect a hundred places to be available but in fact there were only 12. The school should be justly proud that students are so loyal but for many parents the lack of places is a disaster.

How many parents you may ask? There were 407 applicants for those 12 places. When one takes the other charter schools into account there are probably at least 1,000 students who would opt for a charter school if places were available. Instead they must suffer "Lottery Anguish". I know you county commissioners understand that all too well.

Unity Global Academy

In October of last year you were told that FREE has submitted an application to open the Unity Global Academy in August of 2023. The school will accommodate 450 students in grades K through 8. Thus we will save you at least \$10 million in school construction costs.

Given the huge demand for charter school places why not open the school this year? FREE usually needs only five months to open a school once a charter has been granted.

In recognition of the "Lottery Anguish" inflicted on so many members of our community, FREE will request that our charter application receive emergency approval so that the school can open no later than September 2022.

Normally such requests are denied but a letter of support from the Alamance County commissioners might improve our chances considerably. I therefore ask you to consider providing a letter of support similar to the one we have received from mayor Jennifer Talley.

END

Peter H. Morcombe 474 Thompson Road

Graham, NC 27253

Cell: (321)-474-1708, E-mail: peter@morcombe.net

EDUCATION

Master of Arts degree from Cambridge University, in Electrical Engineering (Honors), and Physics (Class II, Div I). TEMA award 1962. Some French and Spanish. Member of the IEEE & the IEE.

CAREER HISTORY

RETIRED (2018 - Present)

Volunteer work connected with K-12 education.

PLUSCOMM INC. (2003 - 2017)

Delivered fiber optics courses at universities (e.g. UCF and NCSU), community colleges and corporations such as Verizon.

CARTER COMMUNITY SCHOOL (2002)

As "Reading Coach" won a \$600,000 reading grant based on Science Based Reading Research.

DUKE UNIVERSITY (1990 -2002)

Chief Electrical Engineer at the Duke University Free Electron Laser Laboratory.

FREELANCE CONSULTANT (1987 -1990)

High technology factory reorganizations and start ups in ten states from Maine to California.

ITT CORPORATION (1978 - 1987)

Director of Business Operations, Asia, Pacific, and Latin America. 1982-1987.

General Manager of the Optical Communications Division of STC Ltd. 1978-1982

SELF EMPLOYED / FREELANCE CONSULTANT (1970 - 1978)

High technology factory reorganizations, start ups, and product development in the United Kingdom.

ITT CORPORATION (1966 - 1970)

Technical Director, STC Telephone Switching Group, London, England. 1969-1970.

Chief Engineer, STC Switching Division, Belfast, Northern Ireland. 1966-1969.

GEC (TELECOMMS) LTD. (1958 - 1966)

Chief Engineer, Telephone Division, Newton Aycliffe, England. 1964-1966.

Various Engineering Positions. 1958-1964.

K - 12 SCHOOL EXPERIENCE

I have six children. Four of them attended several different types of schools in the UK:

Three children attended Belfast High School Junior, a private school covering K through 8th grade.

Three children attended Skegoneil (Belfast) school, a government school covering K through 8th grade.

One child attended Royal Belfast Academical Institution, a grant maintained (cf. Charter) high school.

One child attended Seaford College, a private residential school (9th through 12th grades).

Three children attended Stansted Comprehensive, a UK government high school.

And five of them attended schools in the United States:

One child attended the Holland township state school in New Jersey, and later the Lawrenceville School.

Two children attended the Delaware Valley High School, a government school in New Jersey, and later Phillipsburg Catholic, a parochial school.

One child attended Carrboro elementary, the Village Charter School, East Chapel Hill High School, the Woods Charter School and the Hargrave Military Academy.

My youngest attended the Village CS, A.L. Stanback middle school, Gymnasio del Norte in Bogota, Colombia and the Viera high school in Rockledge, Florida.

There was at least one Morcombe in a K-12 school for 46 consecutive years.

I have actively advocated the reform of through 12 public education at federal, state, and local levels.

Ran for a Chapel Hill-Carrboro City School Board seat in 1995. Lobbied in support of expanding school choices, including the introduction of charter schools. Presented numerous charter proposals leading to the creation of the six "FREE" schools in North Carolina and one "Virtual School" in Florida while a member of the Central Florida Virtual Charter School Board.



Implementing the Curriculum with Cambridge
A guide for

school leaders

Last updated in July 2021

Introduction	4
1. Curriculum planning: An overview	5
2. Designing the school curriculum	14
3. Approaches to teaching and learning	40
4. Leadership, curriculum evaluation and building school capacity	48
5. Cambridge resources and support services	61
References	66
Annotated bibliography and other resources	67
Glossary	75
Appendices	80

Contents

Fore	eword	3
Intr	oduction	
1 . 1.1 1.2	Curriculum planning: An overview What is curriculum? Principles fundamental to successful curriculum planning and implementation	
2.	Designing the school curriculum	14
2.1	The Cambridge Pathway	14
2.2	Cambridge Primary	18
2.3	Cambridge Lower Secondary	20
2.4	Cambridge Upper Secondary	2
2.5	Cambridge Advanced	24
2.6	Alternative approaches to English language development and demonstrating English language proficiency	28
2.7	Timetabling the curriculum	29
2.8	Teaching Cambridge programmes in school systems with different requirements for the formal years of schooling	37
2.9	Curriculum models for bilingual and multilingual schools	
3.	Approaches to teaching and learning	40
3.1	The Cambridge teacher	40
3.2	The Cambridge learner and teacher attributes	4
3.3	Becoming a reflective learner	43
3.4	Disciplinary and interdisciplinary approaches	4
3.5	Using conceptual frameworks to support learning	4!
3.6	Collaboration	46
3.7	Information literacy and using information & communications technology (ICT) in the classroom	4

4.	Leadership, curriculum evaluation and building school capacity	48
4.1	Leadership	48
4.2	Curriculum planning and evaluation	50
4.3	Teacher recruitment and evaluation	52
4.4	Professional development (PD)	53
4.5	Developing and implementing quality assurance policies	
	and procedures	
4.6	Managing change	55
4.7	Involving the local community and parents	55
4.8	Administering our assessments (exams officers)	56
4.9	Student admissions, progression through the school	
	and guidance on to higher education	56
4.10	Understanding and measuring impact	56
5.	Cambridge resources and support services	61
5.1	Curriculum materials and resources	61
5.2	Professional development	63
5.3	School improvement services	65
5.4	Expanding the Cambridge offer or becoming a Cambridge school	65
Refe	erences	66
Ann	otated bibliography and other resources	67
Glos	ssary	75
Арр	endices	80
School years and age ranges		
Cam	bridge IGCSE subjects with alternative courses	81
د	lent and Teacher Self-Efficacy Questionnaires	82

Foreword

At Cambridge International, we are committed to providing a high level of support for school leaders and teachers delivering Cambridge programmes. The *Implementing the Curriculum with Cambridge* guide is one of the cornerstones of this support and sets out our approach to teaching Cambridge at your school.

It provides a rich resource for school leaders to design, develop and implement the curriculum using Cambridge programmes and qualifications. It sets out some of the principles that underpin an effective curriculum and highlights considerations for school leaders, drawing on case studies and examples.

Nevertheless, at Cambridge, we recognise that the most important work in designing and implementing a school's curriculum is done by its leaders and teachers. It is you who ensure that any programme is adapted to your context, culture and ethos, and is tailored to your students' needs.

This flexibility is a fundamental principle of a Cambridge education. We do not believe that a common prescription is suitable for all countries and contexts. The result of a successful education is so much more than qualifications. It is well-rounded, curious and independent young people, ready to go out and make a difference to the world. We hope our learner attributes can contribute to this by encouraging teachers to focus on the strategies and habits needed for life-long learning within and beyond the taught curriculum.

At the time of writing this foreword, in July 2020, the education world has undergone tremendous disruption as a result of the Covid-19 pandemic. From school closures, to the cancelling of examinations worldwide, no part of our profession has been untouched. When the outbreak struck, the education community adapted swiftly. Schools around the world immediately began teaching and learning remotely, and Cambridge International developed a new system for awarding grades in the June 2020 series. Throughout this process, I've been struck by the strength of collaboration between ourselves and the global community of Cambridge schools, all equally determined to minimise the disruption to learners and allow them to continue their educational journeys.

The consequences of the pandemic are likely to be felt for many years to come. However, the essential building blocks to providing a well-designed and supported curriculum will remain the same.

Notwithstanding the disruption to education in 2020, the world of international education continues to evolve, and we are evolving our support to schools, reflecting our approach to education. The Cambridge family of organisations, including Cambridge University Press and Cambridge English, are working closer than ever together to ensure that we can offer our schools the best possible range of resources and guidance. We have also welcomed CEM into the Cambridge family, to offer formative baseline assessments to support every stage of the Cambridge Pathway.

Whether teaching in school or remotely, this guide is intended to help you make sense of your curriculum and plan for its development.

It should serve as a guide to the wide range of resources – subject syllabuses, learner and teacher support – from which schools can draw in building and delivering a curriculum appropriate to their learners' needs. At the same time, it sets out and explains the principles which we believe should underpin an effective school curriculum – principles based not on ideology but on our own research and that of others – and discusses how these principles can be applied in practice.

Christine Özden

Chief Executive, Cambridge Assessment International Education

Introduction

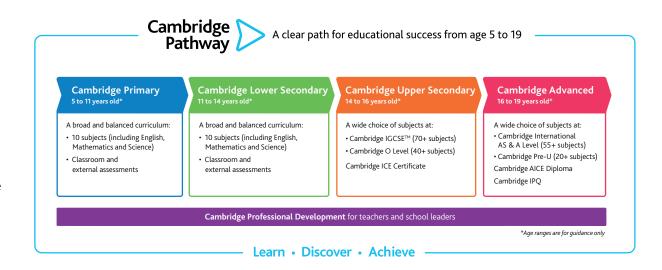
This guide will help school principals, school leaders, and others responsible for the educational programme in a school to design, develop, implement and evaluate the curriculum where Cambridge programmes and qualifications are followed.

Schools require well-designed and well-supported curricula to achieve their educational vision and aims. These aims usually include academic excellence, fulfilling the potential of every learner and nurturing the competencies learners need to succeed in higher education, the world of work and to lead fulfilled lives.

The guide focuses on the curriculum as a whole. It:

- identifies fundamental principles that we believe schools need to engage with while they design, implement and evaluate their curriculum
- · considers practices that support these principles
- explains our programmes and the support we offer in detail
- highlights where to find more specific information

Schools are responsible for their own curriculum; our role at Cambridge is to support school leaders make informed decisions. The Cambridge pathway provides a coherent curriculum structure made up of four stages – from Primary to Advanced. Each stage builds on the previous one in a carefully aligned instructional system. Some schools choose to adopt the whole Cambridge continuum, others choose to offer one or two stages, while many schools combine Cambridge with other national and international programmes. This guide is relevant to all of these approaches.



The principles and practices outlined in this guide are based on our experience of listening to what schools want to achieve through their curriculum, and are informed by research-based best practice.

Every school is a unique community with its own identity and will be at a different stage in its evolution; some will be starting up while others will be evaluating where they are with a view to improving provision and practice. This guide is written with this fact in mind.

Curriculum, pedagogy and assessment are inherently linked. Hence, this guide focuses on curriculum within the context of the broader school policies and

practices in which it is embedded. Developing the curriculum involves building school capacity, structure and operations to support it. This guide relates to all of these facets of effective schools.

Cambridge has produced two other guides and a series of resources that complement and further develop many of the points made in this guide.

- 1. Developing your school with Cambridge
- 2. Developing the Cambridge learner attributes
- Other resources in our teaching and learning area including education briefs and getting started with guides.

This chapter considers what the curriculum is and how it should be derived from the school's educational vision. It highlights the fact that qualifications form only part of the curriculum. Every school is unique and school leaders must consider how to support its implementation, which may necessitate changes to a school's structure and operations. We introduce some fundamental principles that need to be considered in the curriculum design process. Chapter 2 of the learner attributes guide provides further guidance.

1.1 What is curriculum?

Across the world, the term curriculum is used in several different ways.

In some countries, 'curriculum' has a holistic meaning encompassing not only subjects, but also the connections between subjects, teaching methods and all aspects of schooling that define the learner's experience. In other countries, a narrower interpretation is used, referring either to a prescribed range of courses (the curriculum in Year 6 contains eight different subjects) or a specific learning programme across different years (the chemistry curriculum at secondary level). This guide uses the following definitions:

- A school curriculum refers to the combination of subjects studied within a school year and in sequential years as the learner moves through the educational system provided by the school.
- A subject curriculum refers to the content and skills contained within a syllabus applied across sequential stages of student learning. These stages normally refer to school year levels, and therefore a particular age of learner.
- Co-curricular curriculum refers to valued educational activities that support learning beyond the school curriculum, which the school encourages and supports.
- The experienced curriculum refers to the learning students actually receive as
 a result of the whole educational experience the school provides. This includes
 the impact of the school curriculum, teaching approaches, the co-curricular
 curriculum and the learning environment. It includes both the planned and
 unplanned or unintended outcomes of the curriculum.

The wider learning experience:

Planning the school curriculum in terms of subjects and qualifications is only part of the process. The experienced curriculum in an excellent school provides a learning experience that is more than the sum of the qualifications, subjects and activities that are visible on the school schedule. This is because careful attention in curriculum design and implementation is given to learning within, across and between the subjects and activities. All teachers and school staff support the development of the learner attributes and other qualities identified in the school's vision. Breadth, balance and coherence need to be built in by design. The school's vision and aims will include personal and social outcomes as well as academic ones. Learning does not begin or end in classrooms, but permeates the school environment and broader community.

What learners actually experience may not be the same as the written objectives of the curriculum – it will be the consequence of a complex web of interdependent parts including:

- the school's vision and values
- teaching quality
- · learner motivation and prior knowledge
- school leadership, environment and culture
- the school's curriculum and subject curricula
- assessment practices and expectations
- the school's internal structures and operations.

Therefore, the experienced curriculum is necessarily unique to each school, and designing or re-evaluating a curriculum is a complex and challenging task. Schools should regularly evaluate their outcomes against intentions, ensuring that they are optimising learners' educational experiences in line with the school's vision and mission.

School vision, mission and plan:

The school vision is a compelling sense of the future direction of the school. It should inspire commitment from the whole school community and be widely shared.

Most schools also have a mission statement, which is a written declaration defining the school's educational purpose. Educational aims might be included in the mission statement or listed separately. Together with the vision and mission, they provide focus and guidance on what the priorities are.

The school strategic plan gives practical direction to the vision, mission statement and aims. This should include a statement headlining longer-term priorities/objectives of up to five years ahead, and a detailed one-year implementation plan.

Curriculum planning:

Table 1 below outlines some of the many questions that schools need to address when planning the school curriculum. It shows that these decisions must be based on the school's vision, mission and educational aims, taking into consideration school structures and building school capacity.

The school vision is a compelling sense of the future direction of the school. It should inspire commitment from the whole school community and be widely shared.

Table 1: Curriculum planning within a school context: Some critical questions

School Vision and Strategic Planning – achieving the desired learning outcomes		
Building school capacity	Structure and operation	
Learners	Designing a curriculum	
What are the expected academic, personal and social outcomes? Which skills and competencies should learners acquire through the curriculum? How will the curriculum motivate, engage and challenge learners? Is the curriculum relevant to the needs of learners – now and in the future? What attributes are being modelled for learners across the school?	Which Cambridge programmes and subjects will be included and how will these complement other educational programmes and qualifications offered by the school? Does the curriculum reflect the school's vision and context? How will learning within local or national contexts be developed in the curriculum? How will the school support learners who do not have English as a first language? Which subjects will be taught in English? (In bi-lingual schools)	

D 11 P 1 1 P 12	
Building school capacity	Structure and operation
Teachers	Qualifications
Which pedagogical and assessment practices should lie at the centre of teaching and learning?	Will the school offer national as well as Cambridge qualifications? Is progression from one level to the next coherent?
What teacher professional development is required to ensure effective planning and delivery of the curriculum?	Will there be any scheduling or organisational difficulties if dual qualifications are offered? Will these combinations of qualifications support learners applying to higher
How will teachers be encouraged to self-reflect on their current teaching practices and the learning achievement of their students based on meaningful evidence?	education (in secondary schools)?
Is there provision for teachers to undertake relevant professional qualification courses to enhance their professional learning and the quality of student learning experiences?	
How will teacher professional development remain relevant and targeted?	
Leadership and Management	Timetabling
Does the school have an effective governance structure with clear roles and responsibilities?	How many subjects will be studied and for how many hours in each subject? How will this vary from one year to the next as learners progress through the school?
What role do school administrators have in the delivery of the curriculum and in supporting teachers?	Will the curriculum be fixed (compulsory) or provide a measure of learner subject choice? How will such flexibility be balanced against the school's
How do leaders know that effective teaching and real learning are taking place in classrooms?	current resourcing and staffing provisions?
How is the school measuring the impact of the curriculum? And what are they doing with this information?	
Are effective collegial and collaborative team structures and dynamics operating school-wide and within subject/learning areas?	
Are inter-school networking opportunities available for teachers and school leaders to support the implementation and development of the curriculum?	
How will the school engage with/use professional learning networks?	
Has the leadership team communicated the school vision to all stakeholders appropriately and effectively?	

School Vision and Strategic Planning – achieving the desired learning outcomes		
Building school capacity	Structure and operation	
School and the community What involvement will school support groups and other community groups have? What contributions can these groups make in the development of the curriculum? How can the resources of the local community be linked into the school curriculum?	Facilities What facilities will be required to accommodate the requirements of specialist subjects? Does the school provide appropriate learning environments for studying all subjects in the curriculum?	
	Resourcing What financial provision is available for delivering the curriculum, in terms of teaching resources, teacher support and administrative requirements? Does the school have effective communication and co-ordination systems and structures for implementing, managing and refining the curriculum?	

1.2 Principles fundamental to successful curriculum design and implementation

Cambridge schools operate in a wide range of contexts with differing demands and expectations. The curriculum is at the heart of schools' strategies to raise achievement and improve outcomes for all learners. While some schools will prefer to offer a curriculum made up entirely of combinations of Cambridge courses, combining these to form a programme of study, other schools will select individual subject syllabuses and combine them with qualifications and educational programmes from other national or international providers.

We believe that certain principles are fundamental to successful curriculum design and implementation in all situations:

1. The school curriculum should deliver a broad, balanced and consistent programme of learning with clear and smooth progression routes designed for the needs of all learners.

When planning the school curriculum, the school leadership must choose both the subjects to be studied for each year, as well as a sequential programme from one year to the next. Time and resource limitations mean that school leaders

must carefully prioritise and make choices when planning a curriculum. Different societal or cultural norms will influence this process of prioritisation and there is no one-size-fits-all solution.

Certain considerations are, however, universally significant:

- The values and educational aims of the school must guide all decisions about the curriculum. Normally this results in a balance of subjects and activities covering different educational processes, objectives and content, developing a holistic set of skills and knowledge.
- Quality is more important than quantity. It can be tempting to add more subjects and/or content to the curriculum, with the noble intention of maximising learning. Too much content, however, does not allow time to support depth of understanding and the practice students need for deep learning. Less can actually be more.
- Progression through the curriculum must be consistent. The curriculum should give learners the understanding, knowledge and skills they need to allow them to progress to the next educational stage.

 A spiral approach to skill development is supported. Each successive stage revisits critical learning areas and builds on them, respecting the learners' developmental stage.

In addition to these universal considerations, other aspects for a school to consider include:

- Consistency This is concerned with progression in knowledge and skills
 from one stage to the next. Do the different stages align? Are learners
 appropriately prepared and challenged at each stage? It is reasonable to
 expect changes in emphasis and approach as learners become more mature.
 Consistency does not mean that the curriculum will stay the same, but it is
 important for changes to be planned rather than unintentional.
- Balance The concept of breadth and balance will be illuminated by the school's vision and educational aims. A balanced curriculum normally includes mathematics, languages, sciences, technology, humanities, creative arts and physical education. A broad curriculum allows learners to experience, acquire and develop essential and valued learning from a variety of contexts. It may be that some disciplines, for example information technology, are infused in the teaching of other subjects rather than being taught as a discrete subject. There is still the need for a clear identification of these activities, supported by a written curriculum that helps define precisely who is responsible for their development. It is also important that literacy and numeracy are supported by teachers of all subjects, not just in languages and mathematics.
- Preparation for higher education In the senior years of schooling, some
 narrowing of the curriculum may be expected as learners prepare for specific
 qualifications required for progression to higher education. Learners should
 still be expected to take part in activities and programmes that are
 complementary to the academic qualifications they are preparing for, and
 the school should provide a breadth of activity and engagement in support
 of the school's mission.



- Combining curricula The school is combining Cambridge qualifications with
 others, it is important to consider compatibility issues. It may be that other
 qualifications or programmes of study incorporate different approaches to
 teaching, learning and assessment from those described in this guide. This
 will require careful planning and coordination to ensure that any differences
 are clearly understood and accommodated.
- Effectiveness Cambridge's syllabuses, teacher support material, teacher professional development and assessments are designed by subject experts to support a smooth progression from primary to upper secondary, but it is up to the school to make it happen. It is essential that schools create their own schemes of work and lessons plans to make the Cambridge syllabuses locally relevant and make sure teachers are teaching these effectively. The curriculum is locally constructed in the school.

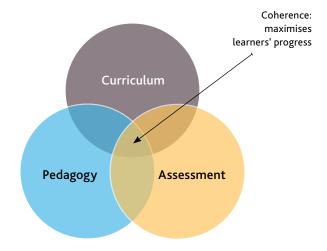
2. The instructional system is well aligned and coherent

A well-designed instructional system is more than the sum of its parts. A curriculum is coherent when the prescribed content, textbooks, resources, and approaches to teaching and assessment are aligned and reinforce one another.

The learning experiences should be thoughtfully sequenced to respect students' developmental stages. The content of the curriculum, the pedagogical approach and the assessment approach must also be aligned in order to maximise learner development and achievement.

Cambridge syllabuses, teacher support material, endorsed textbooks and Cambridge professional development opportunities are designed to ensure alignment of the curriculum and pedagogy. Cambridge assessments are designed to ensure that they are valid, only assessing what is clearly defined in the syllabus assessment objectives.

Figure 1: An aligned instructional system



The curriculum supports the development of learners and teachers who are confident, responsible, reflective, innovative and engaged.

To help schools develop good learning habits, Cambridge has developed the learner and teacher attributes (see table 8 in chapter 3). Learning habits describe how students and teachers approach a given situation, environment or challenge. They include a combination of values, attitudes, knowledge, skills and strategies and assume competence – the skilled and appropriate application of the attribute.

Many schools have additional learner attributes, reflecting their school mission, and the way that the attributes are used varies widely. The Developing the Cambridge learner attributes guide provides a comprehensive resource for schools to consult

4. Each subject curriculum should provide learners and teachers with inspiring and relevant content and an appropriate breadth and depth of subject knowledge.

Subject curricula should be formulated chronologically in a learning spiral so they provide appropriate progression from one stage of education to the next. The knowledge, understanding and skills acquired at each year level forms the foundation for learning at the next. In order to develop a deep level of understanding, while building a solid foundation for future progression, learners need to revisit and practice important knowledge and skills repeatedly in a number of different contexts. In planning the curriculum, time for this needs to be allowed so that depth of coverage is supported, reinforcing prior learning and creating links to new learning.

Cambridge offers subject curricula that are based on specified educational standards appropriate to the learners' development stage across the years of schooling. We work closely with universities and other higher education providers around the world to ensure they recognise our qualifications and that our qualifications provide the best possible preparation for students to do well in their studies once they get into University.

5. The school curriculum should recognise the language background of learners and provide them with the support they need to access the curriculum.

Schools almost always have learners with a range of exposure to and competence in different languages. This reality must be reflected in curriculum planning and in a coherent language policy reflecting the school's situation.

Language needs to be prioritised in the curriculum. Learners need to have excellent skills in their native or first language as this will directly influence their cognitive development in all subject areas. They also need to have excellent English language skills in order to access the curriculum if it is taught through the medium of English.

Students attending international schools are often learning the curriculum through the medium of English, so developing a high level of English language competence will help them learn. It is also critical that students continue to develop their first or best language. Language development helps develop student identity, international understanding and the Cambridge learner attributes.

All Cambridge qualifications are assessed in English. Learners must therefore develop sufficient skills in reading and writing in English to be able to take Cambridge assessments. However, they also need English speaking and listening skills to be able to learn effectively. Learning through English becomes an integral component of study. Schools develop a range of strategies that allow learners to progressively advance these skills prior to taking examinations. One such strategy is for all teachers to be 'language aware' - planning language support in their classes, and enabling them to be language teachers as well as teachers of their own subject disciplines.

Cambridge supports schools who want to use bilingual education programmes. This is where two or more languages are used as the medium of instruction for non-language subjects. Learners study some non-language school subjects, such as maths or geography, mainly through a second or third language, and some subjects through their first language. The understanding of bilingual education is linked to other educational concepts such as content and language integrated

We are aware that most learners completing our programmes and qualifications are operating in a language that which is not their first language. Examiners apply a positive marking approach, looking to award marks when a learner has demonstrated understanding.

learning (CLIL). Here, in content classes, learners develop subject knowledge and new language skills at the same time. If dual national and international qualifications are being offered, the curriculum may specify subjects that will be taught through either English or the first language, that is, in a bilingual curriculum design. To find out more about our approach to bilingual education visit www.cambridgeinternational.org/bilingual

We are aware that most learners completing our programmes and qualifications are operating in a language that which is not their first language. Examiners apply a positive marking approach, looking to award marks when a learner has demonstrated understanding. Learners are not penalised for spelling and grammatical errors except in the assessment of languages which are testing language skills.

6. Assessment has a number of purposes that are essential to the educational process.

These purposes include assessment for learning (providing feedback in support of the learning process), and summative assessment (determining a learner's level of performance).

Assessment is an integral component of each subject's curriculum. Pedagogy and assessment are inseparable in the teaching and learning process, as development in one reciprocates change in the other. Assessment for learning practices are essential teaching strategies that inform teachers and learners about the current level of understanding and skill acquisition during the actual teaching phase, providing guidance and feedback for subsequent teaching. Summative assessment is carried out at the end of a period of learning and its

purpose is to judge what standard the learner has reached. The final assessments in many Cambridge qualifications are high stakes because results influence progression onto the next stage of education or higher education, and can be used to make external judgements (for example by a university) of the learner's level of performance.

7. Clear and meaningful educational standards are essential to ensure accurate measurement of progress and achievement and allow for international benchmarking and comparability.

Clear standards are necessary for defining learning expectations, measuring progress, setting targets, comparing performance and certifying attainment. They are also critical to help teachers understand learners' strengths and weaknesses and to help learners understand their own learning progression. Assessment of specific and transparent educational standards enables the benchmarking of learner achievement on a local (school), national and international scale. Cambridge uses a number of different standards in relation to our syllabuses and assessments that are considered in detail in our code of practice document. Our teaching resources and endorsed textbooks exemplify these. For information on our school leader and school teacher standards see here and on our school self-evaluation standards see here. Cambridge ensures that all its high-stakes summative assessments are valid, reliable and fair, while adhering to the highest technical standards.

8. Teachers are the most powerful influence on student learning.

Reflective practice supported by professional development is an essential and continuous part of a teacher's life.

Curriculum is intertwined with pedagogy and effective teaching practice is a necessary condition for effective curriculum implementation. Teachers make the curriculum real by translating learning and assessment objectives, syllabus aims, subject content and school policy into meaningful learning experiences. The learner attributes apply to both teachers and learners, as teachers are required to exemplify the processes and practices expected of learners.

Systematic teacher professional development (PD) is therefore a critical tool to enhance both student learning and school performance. Cambridge provides a range of PD opportunities and resources aligned to the different backgrounds and levels of experience of teachers.

These support the teaching of Cambridge programmes and qualifications and the development of pedagogical skills. They help teachers to become confident, responsible, reflective, innovative and engaged. There are also numerous other excellent PD options that teachers can follow. Professional development should not be confined to Cambridge offerings, but does need to be consistent with the principles described in this guide.

One purpose of PD is supporting evidence-based reflective practice in day-to-day teaching. One of the best ways of achieving this is through teachers working collaboratively in professional learning communities and networks of local schools, but they can also draw on the wider international Cambridge community. Digital communications such as the internet let us easily, efficiently and economically share experiences, ideas and initiatives across the community, with our common goal of improving the quality of teaching and learning for all.

Experienced teachers are encouraged to become Cambridge teacher trainers and examiners. Being an examiner or trainer is a most effective way of developing teachers' own practice, helping to improve professional practice within their school as well as contributing to the wider Cambridge International community.

9. The pedagogy required to optimise learning using Cambridge curricula requires the active engagement of the learner.

Good teaching practice is not something that can be easily prescribed, and there are important cultural and local influences that will help to define what 'good' means. One universal principle fundamental to all effective approaches is that the learner must be actively engaged in their own learning.

Knowledge and understanding cannot be transmitted from the teacher to the learner. The learner's existing mental models must be challenged and extended. Teachers have to constantly listen to the voice of the learner, both in the classroom and in the work they produce, and engage with it to support learning

and understanding. This process helps learners become independent, as they start to model the teacher's approach.

Active learning requires teachers to lead learning, not just be facilitators of learning. This involves constantly monitoring the impact of their instructional approaches and adjusting what they do based on feedback. They need to build meaningful links in learners' minds between prior and newly acquired knowledge and understanding, while providing appropriate challenge.

10. Strong leadership is a necessary condition for sustained school improvement and curriculum development.

School leaders contribute in a variety of ways to the design and successful implementation of the school curriculum. Schools are a complex web of interdependent parts, and responsibilities of school leadership include getting the best out of both individuals and the system, and developing the system to better achieve the school's mission.

Excellent school leaders create the conditions to realise teachers' potential. Teachers should themselves be viewed as leaders. They lead in the classroom by making the curriculum real to learners and creating opportunities for student learning. Teachers, as reflective practitioners, can also play an important role in school improvement and become positive agents of institutional change.

11. Curriculum development involves an ongoing process of evidence gathering and evaluation.

Schools are in a constant state of development, evolving as they respond to changing internal needs and externally imposed requirements. Conducting regular reviews of the school curriculum, and the effectiveness of its implementation and delivery, should be a priority. School leaders and teachers need to be concerned with measuring the impact of the curriculum. Is it actually delivering what it intends? How do we know? What are the perceptions of students? Such reviews are fundamental elements of the annual school management cycle – a process of goal setting, monitoring, evidence collecting and evaluation leading to affirmation or refinement of the school's strategic plan.

12. The curriculum needs to ensure all learners fulfil their potential.

Effective schools can be defined as those that successfully progress the learning and development of all of their students, regardless of intake characteristics, beyond the normal development curve. Schools support all learners to fulfil their potential and overcome any barriers to learning they encounter.

• Effective schools can be defined as those that successfully progress the learning and development of all of their students.

This chapter provides guidance to those who are responsible for designing the school curriculum using Cambridge programmes and qualifications. The chapter describes the Cambridge pathway, giving an overview of the structure of Cambridge programmes from Primary to Advanced. It discusses the practical implications of introducing a curriculum, including timetabling and adapting to different local requirements for the formal years of schooling. Finally, this chapter shows how Cambridge programmes can be used to support the development of bilingualism.

Flexibility is a key feature of Cambridge programmes. Educational needs are not the same everywhere. Cambridge offers a rich menu from which to select, not a total package which schools have to adopt. Schools can use Cambridge alongside local educational programmes and qualifications to meet their needs and requirements.

2.1 The Cambridge Pathway

The Cambridge Pathway is made up of four stages and is characterised as follows:

- Each subject programme builds on the previous stage, providing a coherent curriculum progression. This staged approach helps learners develop knowledge, conceptual understanding, skills and attitudes.
- It is important to distinguish between the written Cambridge programmes, as
 defined in the documentation and syllabuses, and the taught curriculum in
 the school, representing the local expression of the programmes. Each
 subject programme is intended to be adapted to the local context and
 teachers are able to create a programme of study that includes local content
 and case studies. This enhances the quality of teaching and learning, and
 ensures the curriculum reflects national culture and heritage.
- Cambridge's international qualifications are pitched at three levels. The end
 of upper secondary (IGCSE or O Level) provides an international standard
 that allows students to access Cambridge AS and A Levels or alternative
 university preparation courses. In some contexts, students can enter

university foundation programmes directly with IGCSE qualifications. At advanced level, the AS standard represents the entrance standard for universities in many countries, with A Level offering advanced placement or credit. In other countries, A Level is preferred or required for direct university entry.



Table 2: An overview of the Cambridge Pathway and Cambridge Programmes

Cambridge programme	Subjects	Assessment	
Cambridge Primary			
Typically for 5–11 year olds. The curriculum frameworks provide comprehensive learning objectives. These provide a structure for teaching and learning and a reference against which learners' progress and understanding can be checked. No part of the curriculum is compulsory, so schools can select the elements that are right for their learners. Develops the skills, knowledge and understanding that will prepare learners for a smooth transition to Cambridge Lower Secondary.	A six-stage programme that provides curriculum frameworks and support materials for each of the following subjects: Art & Design Digital literacy English English as a second language Cambridge Global Perspectives Computing Mathematics Music Physical education Science Each stage reflects the teaching targets for a school year. The curriculum frameworks are divided into content areas called 'strands'. For English, for example, the strands include reading, writing and speaking and listening.	 An optional testing structure, with assessments that provide an international benchmark enabling teachers to: identify learner strengths and weaknesses, both for individual learners and class groups, and use the information to help inform teaching provide learners with a statement of achievement if they choose to do Cambridge Primary Checkpoint at the end of their primary schooling. Cambridge Primary Progression tests From stage 3 to stage 6 of the curriculum in English, English as a second language, mathematics and science. Can be given when the teacher feels the class is ready. Marked by teachers in school. Cambridge Primary Checkpoint Cambridge provides diagnostic tests for the end of the Primary programme for English, English as a second language, mathematics and science. Cambridge marks the tests and provides feeback on the strengths and weaknesses of each learner. Cambridge Primary Global Perspectives is assessed through a Team Project. This is marked by teachers and moderated by Cambridge. We provide assessment guidance for art & design, computing, digital literacy, music and physical education. 	

Cambridge programme	Subjects	Assessment	
Cambridge Lower Secondary			
Typically for 11 to 14 year-olds. The curriculum frameworks provide comprehensive learning objectives. These build on the foundations of Cambridge Primary and help learners to progress smoothly to Cambridge Upper Secondary. No part of the curriculum is compulsory, so schools can select the elements that are right for their learners.	A three-stage programme that provides curriculum frameworks and support materials for each of the following subjects: Art & Design Digital literacy English English as a second language Cambridge Global Perspectives Computing Mathematics Music Physical education Science Each stage reflects the teaching targets for a school year. The curriculum frameworks are divided into content areas called 'strands'. For English, for example, the strands include reading, writing and speaking and listening.	 An optional testing structure, with assessments that provide an international benchmark enabling teachers to: identify learner strengths and weaknesses, both for individual learners and class groups, and use the information to help inform teaching provide learners with a statement of achievement if they choose to do Cambridge Lower Secondary Checkpoint at the end of their Lower Secondary schooling. Cambridge Lower Secondary Progression Tests are available for each stage of the curriculum in English, English as a second language, mathematics and science. Can be given when the teacher feels the class is ready. Marked by teachers in school. Cambridge Lower Secondary Checkpoint Cambridge provides diagnostic tests for the end of the Lower Secondary programme for English, English as a second language, mathematics and science. Cambridge marks the tests and provides feeback on the strengths and weaknesses of each learner. Cambridge Lower Secondary Global Perspectives is assessed through a Research Report. This is marked by teachers and moderated by Cambridge. We provide assessment guidance for art & design, computing, digital literacy, music and physical education. 	

Cambridge programme	Subjects	Assessment		
	Cambridge Upper Secondary			
Typically for 14-16 year-olds, the syllabuses for qualifications within this programme describe the knowledge, understanding and skils learners will develop and explain how these will be assessed. Cambridge Upper Secondary provides excellent preparation for the next stage of a Cambridge International education, Cambridge Advanced, as well as other progression routes.	Designed as a two-year programme but can be taken in one year or over three years. Offers over 70 IGCSE courses and over 40 O Level courses. Schools can offer almost any combination of subjects (with a few restrictions known as 'barred combinations'). Learners receive a certificated grade for each subject they take.	Cambridge IGCSE assessment takes place at the end of the course. There is a range of types of assessment, including written, oral, coursework and practical assessment. In mathematics, science and English as a second language there is a tiered structure with the option to enter candidates for Core or for Extended tier, [see page 22 on tiering]. Grades are awarded from A*-G (or from 9-1 if available in the administrative zone/subject). The grade set is capped at Grade C (Grade 5 for 9-1 grading) for Core candidates. Cambridge O Level assessment takes place at the end of the course. There is a range of types of assessment, including written, oral, a limited amount of coursework and practical assessment. Grades are awarded from A*-E. Cambridge O Levels are no longer available to schools in administrative zones 1, 2 and 6. There is more information on administrative zones at www.cambridgeinternational.org/help		

Cambridge programme	Subjects	Assessment
	Cambridge Advanced	
Typically for 16–19 year olds, Cambridge Advanced builds on the foundations of Cambridge Upper Secondary and leads to entry to universities worldwide. The focus is on helping learners to develop deep understanding and independent learning and critical thinking skills, which universities value highly. The syllabuses for qualifications within this progarmme describe the knowledge, understanding and skils learners will develop and explain how these will be assessed.	Offers a choice of 50 different subjects and schools can offer almost any combination. A staged approach is available in almost all subjects. An AS Level contains half the content of the corresponding A Level and is normally completed in one year. This allows for flexibility, as learners can complete AS Levels as qualifications in their own right or as the first half of an A Level. The Pre-U programme is available to schools in the United Kingdom. Schools outside the UK need special approval before they can offer Cambridge Pre-U subjects.	Cambridge International AS & A Levels use a range of assessment types, including formal written examinations, orals, practicals and coursework. A level grades range from A* to E. They are directly comparable in standard to A levels awarded in the United Kingdom. Assessment of Pre-U Principal Subjects is at the end of a two-year course. There is a range of nine grades, D1–P3.

There is much more specific information, including details of all the courses available at each stage, in the *Cambridge Prospectus*, available here.

2.2 Cambridge Primary

Designed for 5–11 year olds, Cambridge Primary is structured through curriculum frameworks in 10 subjects including English, English as a second language, mathematics, science and Cambridge Global Perspectives. Each framework is divided into six stages, normally taught over one year each, but they can be covered over shorter or longer time periods depending on the school's circumstances. No subject in the Cambridge Primary programme is compulsory, so schools can select the elements that are right for their learners. Cambridge provides a wide range of support for teachers to help them deliver each curriculum in their context.

The curriculum frameworks are structured by the key 'strands' of learning in each subject. The learning objectives in each strand then clearly show the

teaching targets for each stage. Cambridge regularly and systematically reviews each curriculum framework to make sure that primary learners develop a solid foundation in each subject and are well prepared to progress to Cambridge Lower Secondary.

Cambridge Primary English is intended for first language learners who have well-developed oral language skills before they begin school. Therefore, learners are expected to produce language orally and in writing from the earliest stages. This curriculum provides a foundation in language and literacy on which later stages of education can be built. With its emphasis and early focus on literary analysis and critical reading skills, it promotes an understanding of how different language features are used and the impact these have on the reader. It fosters literary appreciation and prepares learners to become skilled users of the language in many contexts.

Primary English as a second language is designed to prepare learners to become skilled users of English as a second language for practical purposes, including

using English for functional communication and learning other curriculum subjects. It is designed for speakers of other first languages who are learning English as a second (or additional) language. It has been developed in conjunction with Cambridge Assessment English and is based on the Council of Europe's Common European Framework of Reference for Languages (CEFR), used across the world to map learners' progress in English (see page 28). The curriculum can be used to support the implementation of bilingual and multilingual education programmes, where subjects are taught through two or more languages.

The mathematics curriculum framework explores principles, patterns, systems, functions and relationships, so that learners can apply their mathematical knowledge and develop a holistic understanding of the subject. It is structured in three content areas: Number, Geometry and Measure, Statistics and Probibility. Thinking and Working Mathematically underpins all of the other areas of learning to assist learners in considering the processes involved when solving problems.

Our Computing curriculum introduces learners to block-based programming and how to write clear instructions that computers can use. This helps them to understand how software drives what happens inside each piece of computer hardware.

Computing has five content areas: Computational thinking, Programming, Managing Data, Networks and Digital Communication, and Computer Systems.

The science curriculum framework has six strands: A skills strand Thinking and Working Scientifically, Four content strands - Biology, Chemistry, Physics and, Earth and Space, A context strand - Science in Context. In every part of the programme learners think and work scientifically and do hands-on science using everyday equipment. This helps learners to develop an understanding of scientific investigations including considering ideas, evaluating evidence, planning, investigating, recording and analysing data. The content in the Biology, Chemistry, Physics and, Earth and Space strands introduce learners to the main areas of science, while the Science in Context strand also places these in a broader cultural and historical context.

Cambridge Primary Global Perspectives develops the skills of research, analysis, evaluation, reflection, collaboration and communication. The skills are taught



through a wide range of topics using personal, local and global perspectives. It strengthens the links across the other subjects in the primary programme and provides an interdisciplinary approach to learning. Flexible delivery options are a key characteristic of the programme and it can be taught as a weekly lesson, integrated into other subjects or through occasional full days of activities.

Find out more about how the Cambridge Global Perspectives primary programme is taught and assessed.

The art, digital literacy, music and physical education curricula have unique features. The art curriculum has learning objectives that describe the concepts and approaches that apply to artists of all ages and levels of expertise. For this reason, the same learning objectives are used to structure learning from Stage 1 to Stage 6. The digital literacy curriculum covers digital skills that students need today but they will also acquire knowledge and understanding about safety and wellbeing online that will equip them for the future. The music curriculum emphasises musical exploration with opportunities for learners to perform and present their music at every stage of development. The focus is on play and on

responding to music which leads to an increasing awareness of self and personal musicality. The physical education curriculum is a vital part of a balanced Cambridge school curriculum. Regular exercise improves both physical and mental health and there is growing evidence that it improves academic performance across the curriculum. Establishing good patterns of exercise in primary schools also provides learners with the foundation of an active and healthy lifestyle for life.

Cambridge Primary testing:

Cambridge Primary includes two voluntary testing options: Progression Tests and Primary Checkpoint. These are used by schools globally to monitor their learners' progress and attainment against an international benchmark.

Cambridge Primary Progression Tests can be used whenever a class is ready to be assessed on their learning from a stage of the curriculum framework. Once teachers have marked the tests, they can use the unique analysis tools provided by Cambridge to produce detailed reports from the results. These highlight the strengths and weaknesses of learners so teachers can make targeted improvements to teaching and learning. Learners' results can be compared against their class, school or other schools around the world, and on a year-by-year basis.

Primary Checkpoint is for learners at the end of the final year of Cambridge Primary. It provides evidence of readiness for the next stage of education, assessing skills, knowledge and understanding. English, English as a second language, mathematics and science are all assessed through written tests provided and marked by Cambridge. Cambridge Primary Global Perspectives is assessed through a Team Project which is marked by teachers and moderated by Cambridge.

For more information see here.

2.3 Cambridge Lower Secondary

Designed for 11–14 year olds, Cambridge Lower Secondary builds on the learning from Cambridge Primary and prepares learners for Cambridge Upper Secondary study. As with the primary programme, no part is compulsory and schools can select which elements will be most useful for their learners. There are three

stages in the curriculum framework for each subject. These are commonly taught over one year for each stage, but they can be taught over shorter or longer time periods, depending on the school's circumstances.

Cambridge regularly and systematically reviews each curriculum framework to make sure that lower secondary learners build on their learning in primary and are effectively prepared for Cambridge Upper Secondary qualifications.

Cambridge Lower Secondary English is intended for first language learners, or those with an equivalent competence in English. Learners build on their understanding and use of language features and become more sophisticated in using language effectively in a range of oral and written contexts. They also continue to develop their literary analysis and critical reading skills. This programme provides learners with the language and literacy skills they need for further study and life. In addition it prepares them for Cambridge Upper Secondary qualifications in English literature, language and drama.

Cambridge Lower Secondary English as a Second Language continues seamlessly from the primary curriculum, developing independent users of English (B1 and B2 on the CEFR see page 28). This programme provides learners with the English language skills they need to access Cambridge Upper Secondary qualifications through English. In addition, learners can continue their studies to Cambridge IGCSE English as a second language.

The mathematics curriculum continues to emphasise Thinking and Working Mathematically. Algebra is formally introduced, building on concepts from the Number strand in the Primary programme, alongside Number, Geometry and Measure and Statistics and Probability. This programme leads to upper secondary qualifications in mathematics. It also provides learners with the numeracy and statistical literacy needed for life as well as further study in a wide range of subjects (such as sciences and social sciences).

Our computing curriculum furthers learners knowledge of programming languages by introducing text-based software. Learners will explore algorithms using flowcharts and pseudocode, spreadsheets and databases, data transfer across networks and new technologies such as Artificial Intelligence.

The science curriculum framework builds further understanding of Biology, Chemistry, Physics, Earth and Space and, Thinking and Working Scientifically. All of the science disciplines are taught in each stage so that learners develop an integrated view of science. The emphasis on scientific investigations continues from primary with learners being introduced to specialist scientific equipment, where available. This programme prepares learners for all of the scientific qualifications available at upper secondary level.

Cambridge Lower Secondary Global Perspectives continues to use a range of topics to develop the skills of research, analysis, evaluation, reflection, collaboration and communication. Learners identify a wider range of personal, local and global perspectives and begin to evaluate why these may be different. As with the primary programme, it is designed to be delivered flexibly through specific lessons, existing subjects or full days of activities. The skills developed prepare learners for all upper secondary subjects and they can continue to study Cambridge Global Perspectives at Upper Secondary. For more information, see here.

The art, digital literacy, music and physical education have a smooth transition from the Primary programme. The art curriculum continues to include the same learning objectives as primary cross Stages 7 to 9. The digital literacy curriculum emphasises that staying safe is an important aspect of all digital activity. Learners develop online skills that enable them to protect themselves and their devices, and to demonstrate concern and respect for others. The music curriculum allows learners to experiment with a wide variety of possible musical paths. This will help each learner to develop a personal affinity to music as well as find ways to express their unique musical personality. The physical education curriculum develops a wide variety of age-appropriate physical activities, including games, team sports, gymnastics and dance. Through these activities learners develop a foundation of an active and healthy lifestyle for life.

Cambridge Lower secondary testing:

Cambridge Progression Tests and Cambridge Lower Secondary Checkpoint allow schools using Cambridge Lower Secondary to monitor their learners' progress and attainment against an international benchmark.

Cambridge Lower Secondary Progression Tests are available as paper or onscreen tests which can be taken when a class has completed a stage of the curriculum framework. Once the tests are marked (by teachers, with some auto-marking for the onscreen version) the unique analysis tools provided by Cambridge will use the results to provide detailed reports. These highlight the strengths and weaknesses of learners so teachers can make targeted improvements to teaching and learning. Learners' results can be compared against their class, school or other schools around the world, and on a year-by-year basis.

Lower Secondary Checkpoint is for learners who have completed the Cambridge Lower Secondary curricula. It provides evidence of readiness for the next stage of education, assessing skills, knowledge and understanding. English, English as a second language, mathematics and science are all assessed through written tests provided and marked by Cambridge. Cambridge Lower Secondary Global Perspectives is assessed through an individual Research Report which is marked by teachers and moderated by Cambridge. For more information see here.

2.4 Cambridge Upper Secondary

The Cambridge Upper Secondary programme has an extensive range of subjects available at Cambridge IGCSE or Cambridge O Level. This diverse range allows teachers to design either a broad and balanced curriculum, or a more specialised one, depending on their educational aims. Some schools opt for a specialised programme with a number of compulsory subjects (including English language, mathematics and science) and only a few, if any, learner electives. Others give learners more choice. It is recommended that learners are offered some choice, to allow them to follow their interests and talents, but there may be higher costs for staff, and perhaps specialist rooms and equipment, as more subjects are offered.

What is a Cambridge IGCSE?

IGCSE stands for International General Certificate of Secondary Education. Over 70 subjects are available. Schools can offer almost any combination of subjects and each subject is certificated separately.

• A Cambridge IGCSE is the formal recognition of a learner's achievement at the end of a particular subject course. The content of the course is based on

an international curriculum developed for 14–16 year olds (although it can be studied by younger or older learners).

- The content of each course is created to suit a wide variety of schools and to avoid cultural bias. It helps to develop creative thinking, enquiry and problemsolving skills and supports the development of the Cambridge learner attributes.
- Each qualification is made up of a number of assessments (called components), the majority of which take place at the end of the course. The methods of assessment include written papers, orals, coursework and practicals.
- Learners have to pass a particular combination of these assessments to achieve the qualification. Some syllabuses offer learners and teachers different assessment options through which to achieve the qualification. This broadens opportunities for students to demonstrate their learning, particularly when their first language is not English.
- In the UK, Cambridge IGCSE is accepted as an equivalent to the GCSE.
- The Cambridge IGCSE grades awarded are A*-G, with A* being the highest. They are designed to cover a wide ability range. Cambridge IGCSE is also available graded 9–1 in certain subjects and administrative zones grade 7 is aligned to grade A and grade 4 is aligned to grade C.

The main differences between Cambridge IGCSE and qualifications offered by other providers as well as UK GCSEs, are in the syllabus content and methods of assessment:

- Several Cambridge IGCSE subjects have an optional coursework element, whereas with most GCSE and equivalent qualifications offered by other providers, coursework is not an option and where there is coursework, it is compulsory.
- The content of Cambridge IGCSE subjects is tailored to the multicultural, multilingual audience they serve, in a way the GCSE content or the content of IGCSEs offered by other providers is not.

- All UK GCSEs from 2019 will be graded 9-1, where IGCSEs are offered as A*-G. For some zones and subjects, IGCSEs are also available graded 9-1.
- Cambridge provides time-zone variation of papers for its IGCSEs. This ensures
 that students who sit examinations before others cannot compromise the
 security of the examinations while examinations are timetabled at sensible
 local times.

What is a Cambridge O Level?

O Level stands for Ordinary Level, and is an internationally recognised qualification equivalent to the UK General Certificate of Secondary Education (GCSE) and Cambridge IGCSE. Over 40 subjects are available to schools, except those in administrative zones 1. 2 and 6.

- A Cambridge O Level is the formal recognition of a learner's achievement at the end of a particular subject course. The content of the course is based on an international curriculum developed for 14–16 year olds (although it can be studied by younger or older learners).
- The qualifications were developed from the academically focused O Level introduced in the UK in the 1950s and replaced in 1988 in the UK by the GCSE.
- The content of each Cambridge O Level syllabus is designed especially for an international market, and is sensitive to the needs of different countries. In many instances, IGCSEs and O Levels share the same content, have common assessments and share common assessment standards.
- Each qualification is made up of a number of assessments (called components), the majority of which take place at the end of the course. The methods of assessment include written papers, orals and practicals, and for some subjects, coursework.
- Learners have to pass a particular combination of these assessments to achieve the qualification. Some of the syllabuses offer learners and teachers different assessment options to achieve the qualification. This broadens opportunities for students to demonstrate their learning, particularly when their first language is not English.

- In the UK, Cambridge O Level is accepted as an equivalent to the GCSE.
- Cambridge O Level assessment standards are aligned to those of the Cambridge IGCSE, and are equivalent on a subject-for-subject, grade-forgrade basis. The grades awarded are A* to E, with A* being the highest.

The main difference between Cambridge O Level and GCSE and Cambridge IGCSE is the grade range: O Levels are graded on an A*–E scale, whereas Cambridge IGCSEs are on an A*–G scale (and 9–1 grade scale for certain subjects and administrative zones). O Levels, therefore, do not provide as many grades recording student performance at lower levels of attainment. The grades are consistent so an A* or C grade in either represents the same level of performance and both IGCSE and O Level provide an excellent preparation for students going onto Cambridge Advanced.

Syllabus content and assessments are often shared for Cambridge O Level and Cambridge IGCSE, although in several subjects the assessment model at Cambridge IGCSE additionally includes coursework options.

Science specifics

In Cambridge Lower Secondary, the curriculum is called 'science' but in Cambridge Upper Secondary there are important choices to make. Schools may choose to offer biology, chemistry and physics as separate subjects. In this case, learners can take all three or specialise in one or two of them. These 'separate sciences' have the greatest amount of content and offer the very best preparation for Cambridge Advanced science. Separate sciences are available at both Cambridge IGCSE and Cambridge O Level and are extremely popular with schools. At IGCSE level, Co-ordinated Science is also offered. This has two-thirds of the content of each of the separate sciences and is known as a double award, meaning that it is worth two IGCSEs. This still offers good preparation for Cambridge Advanced science and many learners will progress to taking one or more sciences after IGCSE through this route. Some schools offer Co-ordinated Science as the only science option. At both IGCSE and O Level, Combined Science is also offered. This has one third of the content of each of the separate sciences. It is a good choice for learners who need to complete their general science education at this level but do not plan to take sciences further.

Schools know their own students best. Streaming them into either the core pathway or the core and extended pathway will clearly impact their future options.

'Core' and 'supplement' tiering

Cambridge IGCSE science subjects, mathematics and English as a second language offer two curriculum options. These are referred to as 'core' and 'extended' or 'supplement' curriculum options. Everyone entering for the subject has to complete the core curriculum, but the extended curriculum can be studied in addition. Students who complete core and extended will be assessed on the full A* - G scale. Students who complete the core can attain grades in the range of C to G.

The extended curriculum provides an opportunity to study the subject in more depth and experience wider coverage of the content. The use of tiering means that questions are set at appropriate levels of demand for the ability range of students taking the tier. Strong candidates can access more demanding material that will prepare them better for studying the discipline at a higher level, including AS or A Level. The extended material, however, can prove to be too cognitively demanding for weaker students while the core is designed to provide a well-rounded education accessible by all. Use of tiering supports a positive assessment experience for all students, to allow everyone to demonstrate what they know, understand and can do.

A school may decide that all learners will study the extended as well as the core, and schools are encouraged to ensure all students are appropriately challenged. Schools know their own students best. Streaming them into either the core pathway or the core and extended pathway will clearly impact their future options. Some students may be struggling because of gaps in their previous teaching, so providing extra support may make it possible for them to access the extended material. The option to enter some candidates for the core examination papers remains until the entry deadline so the decision does not have to be made when the course is first taught.

Alternative course options in IGCSE

Apart from English language, there are several other Cambridge Upper Secondary subjects that have alternative courses (detailed at the end of this guide in the appendices). This flexibility helps teachers identify and select specific courses to meet their teaching requirements.

Some alternative subject courses have particular restrictions ('barred combinations') when it comes to the exams. For example, learners cannot take Cambridge IGCSE Mathematics and Cambridge IGCSE International Mathematics in the same exam series. These restrictions do not mean it is not possible to offer both courses; only that learners cannot undertake the exams or associated assessments of the barred combinations in the same exam series.



Length of study and number of courses

Learners usually study Cambridge IGCSE and Cambridge O Level over one or two years and a few schools offer IGCSE over three years (see section 2.8 on fitting the Cambridge pathway to years of schooling). In many schools, learners study eight or nine subjects, and occasionally more, over a period of two years. In others, learners study a reduced number of subjects, typically about five or six, over one year. Reducing the Cambridge Upper Secondary programme to a one-year period has a direct influence on the balance of the curriculum, as the curriculum will be narrower for any individual learner studying fewer subjects. Some schools allow very able learners to study for exams in selected subjects a year early.

2.5 Cambridge Advanced

By the time learners begin studying the Cambridge Advanced programme, they often want to specialise more, depending on their current interests, ambitions for higher learning and potential career paths. However, it is still possible to study a wide range of different subjects at this level, creating a broad programme of study, and the co-curricular programme can add breadth and balance to the educational experience.

'Planning a Cambridge International AS & A Level Programme' below sets out some different approaches and gives detailed guidance on how teachers can use the programme flexibly to suit their needs. However, in most Cambridge schools it is typical for learners to study three or four subjects. Working at a more advanced level they will need more curriculum time in class for each subject as well as more independent study time. Teachers may decide to include this independent study time on the learner's timetable but it should not normally need teacher time.

What are Cambridge International AS & A Level?

A Level stands for Advanced Level and AS Level stands for Advanced Subsidiary Level. An AS Level contains half the content of the corresponding A Level and is normally completed in one year. This allows for flexibility, as learners can complete AS Levels as qualifications in their own right or as the first half of an A Level, for which they are allowed to carry forward their AS result. Some learners

take all the assessments for their full A Level at the end of the second year (see the 'Planning a Cambridge International AS & A Level programme' below).

Cambridge International AS & A Level are the names of the qualifications that formally recognise a learner's achievement at the end of a particular subject course. The content of the course is more in-depth and demanding than Cambridge IGCSE or O Level. It is based on an international curriculum developed for 16–19 year olds preparing for higher education.

The assessment standards of Cambridge International A Levels are aligned to those of UK A Levels and are equivalent on a subject-for-subject, grade-for-grade basis. The grades awarded are A* to E, with A* being the highest. There is no A* grading in the certification of Cambridge International AS Levels. Cambridge International A & AS Levels are viewed as equivalent to AS & A Level qualifications taken by learners in the UK.

The main differences between Cambridge International AS & A Level qualifications and the UK AS & A Level qualifications are in the syllabus content and mode of assessment:

- Cambridge offers a staged approach no longer available in the UK. For most subjects, the Cambridge AS Level can either be taken as an end-point qualification in its own right, normally after one year of study, or AS Level components can contribute directly to the A Level in a linear examination normally taken at the end of two years along with the other A Level components. Candidates can also build on their AS Level results to count into their A Level result. Cambridge has preserved the staged approach because of the flexibility it provides. In most parts of the world, the AS Level standard represents the level required for direct university entry. Many universities also like to use AS Level results as evidence of student attainment in their admissions process.
- The context or examples used in Cambridge AS and A Level syllabuses and assessments are designed to be culturally sensitive and to provide an international context.

- There is a wider range of subjects available at Cambridge International AS and A Level, for example the wide range of languages offered.
- Cambridge provides time-zone variation of papers for AS and A Level. This
 ensures that students who sit examinations before others cannot compromise
 the security of the examinations while examinations are timetabled at
 sensible local times.

Planning a Cambridge International AS & A Level programme

There are three different approaches for planning and scheduling Cambridge International A Level (see table 3 on next page). Each approach will have a different effect on the structure of the school curriculum and the school timetable.

Before schools decide on which of the three approaches they might allow, it is important for them to check the requirements of universities and other higher education institutions where their learners are likely to want to go. Universities in some countries require three full A Levels for their most popular courses – Approaches 1 or 2 could work for these. Approach 3, AS only, has the potential to provide the broadest and most balanced curriculum but the compromise is less specialisation. This may however be ideal in countries where AS Levels are accepted on their own.

Table 3: Cambridge International AS and A Level options

Approach 1	Approach 2	Approach 3
A 'non-staged' assessment route. Learners take all papers of the Cambridge International A Level course in the same examination series, usually at the end of the second year of study.	A 'staged' assessment route. Learners take the Cambridge International AS Level in Year 1 and/or Year 2 and complete the final Cambridge International A Level in the second series.	Cambridge International AS Level only. Learners take the Cambridge International AS Level exams only. The syllabus content for Cambridge International AS Level is half of a Cambridge International A Level programme.
A learner who successfully completes the non- stage option will normally have studied three or four Cambridge International A Level courses.	A learner who successfully completes the staged assessment option might have outcomes that include: three Cambridge international A Levels and one AS Level (first example below) two Cambridge International A Levels and Four AS Levels (second example below) three Cambridge International A Levels and two AS Levels (third example below).	A learner who successfully completes the Cambridge Internaitonal AS Level only assessment option might have studied eight Cambridge International AS Level courses, completing four in each year. This could represent a broad and balanced curriculum but with less specialisation and depth.

In the first example below, the learner has selected a programme that will result in three Cambridge International A Levels in History, Geography and French and one AS Level in Global Perspectives & Research.

Curriculum level	Subjects selected for study			
First year	AS Level Global Perspectives	AS Level History	AS Level Geography	AS Level French
Second year		A Level History	A Level Geography	A Level French

In the second example on the next page the learner has selected a programme that will result in two Cambridge International A Levels in Mathematics and Economics. They have broadened their programme by selecting an additional

two AS Level subjects in the final year. Together with their first year AS Level subjects, they will achieve four Cambridge International AS Level qualifications: English Literature, Biology, Art and Design and Global Perspectives & Research.

Curriculum level	Subjects selected for study			
First year	AS Level Literature - English	AS Level Mathematics	AS Level Biology	AS Level Economics
Second year	AS Level Art & Design	A Level Mathematics	AS Level Global Perspectives	A Level Economics

In the third example below, the learner has selected a more specialised programme, resulting in three Cambridge International A Levels supported by two Cambridge International AS Level awards. In this case, Cambridge International AS Level Business reinforces the mathematics—economics

combination, with a possible career in the financial world in mind. On the other hand, this could be criticised as being over-specialised, and it might be preferable for the learner to select a different sort of discipline, for example art or Global Perspectives.

Curriculum level	Subjects selected for study			
First year	AS Level Literature - English	AS Level Mathematics	AS Level Biology	AS Level Economics
Second year	A Level Literature – English	A Level Mathematics	AS Level Business	A Level Economics

Learners need guidance to ensure their intended course of study provides the learning and qualifications they need, either for admission into higher level studies or for pursuing a particular career. As mentioned, it is very important to consider admission requirements for both national and international universities and other higher learning institutions, when constructing curriculum and qualification pathways and guiding learners on subjects to choose.

What is Cambridge Pre-U?

Cambridge Pre-U is a qualification designed by Cambridge to help schools equip learners with the skills they need to succeed at university. The qualification formally recognises a learner's achievement at the end of a particular subject course. It is based on a curriculum that promotes deep understanding of subjects through specialisation.

Learners can take Cambridge Pre-U qualifications separately, and receive grades for each one, or choose three Principal Subjects to achieve the Cambridge Pre-U Diploma. To achieve the Diploma, they also need to complete Global Perspectives & Research, a qualification that gives learners the chance to develop independent thinking, research and communication skills.

- Cambridge Pre-U Principal Subjects are assessed at the end of the two-year course.
- Cambridge Pre-U Principal Subjects are recognised by UK universities as equivalent to A Levels.
- Cambridge Pre-U qualifications have an extended grade range at the top to recognise outstanding achievement. The grades awarded are reported on a nine-grade scale, reflecting three broad bands of achievement: Distinction, Merit and Pass. Each band is sub-divided into three grades: Distinction 1, 2, 3 (D1, D2, D3), Merit 1, 2, 3 (M1, M2, M3) and Pass 1, 2, 3 (P1, P2, P3). Each subject a learner takes at Cambridge Pre-U receives a separate grade, for example, D3.

Cambridge Pre-U is not time-zoned and schools outside the UK need special approval before they offer it. Schools considering offering Cambridge Pre-U outside the UK should contact Cambridge at info@cambridgeinternational.org

2.6 Alternative approaches to English language development and demonstrating English language proficiency

Cambridge International offers English as a school subject, with pathways designed for first language, bilingual learners and learners who have English as a second language. Our sister organisation, Cambridge Assessment English (Cambridge English, part of Cambridge Assessment), also offers a range of English language qualifications that are widely accepted by universities, governments and employers around the world.

Both Cambridge International English as a second language and Cambridge English qualifications reference language attainment against The Common European Framework of Reference for Languages (CEFR), a widely used international standard for describing language ability. CEFR describes language ability on a six-point scale, from A1 for beginners, up to C2 for those who have mastered a language. This makes it easy for anyone involved in language teaching and testing, such as teachers or learners, to see the level of different qualifications. It also means that employers and educational institutions can easily compare Cambridge International and Cambridge English language qualifications to other exams in their country.

Cambridge International English as a Second Language is designed primarily for schools where part or all of the curriculum [not just English] is taught through the medium of English. English as a second language is available as one of the subject choices at each stage of the Cambridge Pathway from Primary to Upper Secondary. Schools receive a syllabus, support and assessment materials that are consistent with all Cambridge International courses and reporting and assessment approaches are also consistent so English as a second language fits in seamlessly with the rest of the Cambridge International curriculum.

Cambridge International English as a second language programmes

Cambridge International offers a progressive set of learning objectives designed to prepare learners to become skilled users of English as a second language through the Primary and Lower Secondary programmes. The learning objectives are organised into five strands, which together support the development of

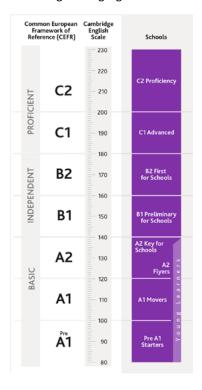
knowledge, skills and understanding. The *Use of English* strand articulates the linguistic features learners need to be able to understand and use when engaging with the language productively and receptively in the *Reading, Writing, Speaking* and *Listening* strands. By identifying aspects of the curriculum which are reflected in the CEFR text and level descriptors, guidance is provided as to how the curriculum aligns to the CEFR levels. This is where appropriate, as some learning objectives are not addressed by the CEFR but considered important for supporting language learning at Primary and Lower Secondary level. The Cambridge Checkpoint tests at the end of Primary and Lower Secondary provide teachers and learners with feedback on their achievement in reading, writing, listening and use of English.

IGCSE English as a second language also aligns to CEFR but, as with primary and lower secondary, additional learning objectives considered important for a school curriculum at this stage are included. Cambridge IGCSE English as a Second Language (E2L) aims to develop communication skills in listening, speaking, reading and writing, enabling learners to become independent users of English, and to be able to use English to communicate effectively in a variety of practical contexts. Learners will be presented with a variety of stimuli that will build up their skills in reading and writing. They will learn to select relevant details, understand the difference between what is directly stated and implied, and practise writing for different purposes and audiences. They will listen to a range of spoken material, including talks and conversations, in order to develop listening skills. They will also engage in conversations on a variety of topics, and develop their skills in responding to different situations and audiences with a degree of accuracy and clarity.

Cambridge English Language programmes for schools

Cambridge English programmes are often most appropriate for contexts where English is the only subject being taught through the medium of English in the school and close CEFR alignment is considered a high priority. Its in-depth examinations are targeted at specific levels of the Common European Framework of Reference for Languages (CEFR), with clear progression pathways from one level to the next. Cambridge English qualifications encourage development of all four language skills. See here for more information.

Figure 2: Cambridge Assessment English Language Assessments Programmes for Schools



Meeting University English language admission requirements

For learners planning to gain entry into universities in English-speaking countries, the English language component of their learning programme is really important. Universities set their own admission criteria for courses and these are usually available on their websites. In order to demonstrate English language proficiency for degree courses, some universities will accept a good grade in IGCSE English as a second language, others require IGCSE First Language English. In the United Kingdom, for example, some universities require a Secure English Language Test [SELT], such as the International English Language Testing System (IELTS) assessed by Cambridge English. There is more information on English language university admissions requirements • here.

2.7 Timetabling the curriculum

Although it is important to start the curriculum planning process by designing a school curriculum that delivers the school's mission, schools will also need to consider practical timetabling issues. These are largely determined by school context, local laws and practices, and the scale of the school budget to support resourcing. This section aims to briefly consider some of these.

The school context, vision and educational aims will influence a number of timetabling decisions including:

- the length of the school day, the number of days' schooling a week and the length of the school year
- how much flexibility is built into the curriculum to allow learners to select options and, where applicable, options within subjects
- the extent and nature of co-curricular activities and expectations or requirements for learner participation in these
- the inclusion of any additional courses or programmes that do not end in some form of external assessment, such as religious education, values education, cultural or heritage courses, student leadership and career experience programmes, and decisions about whether or not these are compulsory
- whether multi-levelling is introduced so that learners in different year groups can be scheduled in the same class depending on their needs
- whether there will be setting by ability within a year group in some subjects such as mathematics, so that several parallel classes are run in the same timetable slots

The timetable has to be developed within the resource constraints of the school. These constraints include:

- number of teaching and support staff
- staff contracts stipulating conditions and expectations
- subject expertise and experience of teaching staff

- availability of classrooms and specialist rooms for example, science laboratories and technology rooms
- availability of resources for language support, special educational needs and gifted learning programmes

When constructing the timetable, curriculum planners must decide how much teaching time to allocate to each subject. This can be expressed in hours per week, but because schools operate different annual calendars, it is often better calculated as hours per year. This equates to the number of periods per week multiplied by the duration of these allocated periods and the number of weeks in the school year. Some schools operate timetables on a 10-day (two-weekly) cycle or some other system of rotation, for example an eight-day cycle. This can create flexibility. Most schools use a regular weekly cycle.

Table 4: Factors influencing timetable decisions

Internal influences	External influences
Organisation structure	Cambridge programme requirements
Resources including staff and facilities	Cambridge qualification requirements
Compulsory subjects or options (degree of learner choice)	Recommended hours a week for each subject
English language capability of learners	National curriculum and qualification requirements
Multi-levelling or fixed school years	External agency requirements, for example, ministry of education
Co-curriculum. Addiitonal courses and activities outside core curriculum	University admissions criteria
Employment contracts	Requirement to take exams in English
	Core vs supplementary subject options

The guided learning hours recommended for Cambridge International programmes are shown opposite.

Table 5: Recommended guided learning hours

Programme	Subject suggested teaching hours
Cambridge Primary	Art & design 30 hours per year (about 1 hour per week) Computing 22–45 hours per year (about 0.5 – 1.5 hours per week) Digital literacy 30 hours per year (about 1 hour per week) English 120–150 hours per year (about 4–5 hours per week) English as second language 120–150 hours per year (about 4–5 hours per week) Global Perspectives Refer to page 15 of the Teacher Guide as teaching time is dependent on the context and how it is implemented at each school Mathematics 120–150 hours per year (about 4–5 hours per week) Music 30 hours per year (about 1 hour per week) Physical education 60–90 hours per year (about 2–3 hours per week) Science 45–60 hours per year (about 1.5–2.5 hours per week)
Cambridge Lower Secondary	Art & design 45 hours per year (about 1.5 hours per week) Computing 45 hours per year (about 1.5 hours per week) Digital literacy 30 hours per year (about 1 hour per week) English 120–150 hours per year (about 4–5 hours per week) English as second language 120–150 hours per year (about 4–5 hours per week) Global Perspectives Refer to page 15 of the teacher guide as teaching time is dependent on the context and how it is implemented at each school Mathematics 120–150 hours per year (about 4–5 hours per week) Music 45 hours per year (about 1.5 hours per week) Physical education 60–90 hours per year (about 2–3 hours per week) Science 90 hours per year (about 3 hours per week)
Cambridge Upper Secondary	About 130* hours per Cambridge IGCSE or O Level subject before taking the assessments.
Cambridge Advanced	 Staged option 180* hours per Cambridge AS Level subject, further 180 hours per subject to complete the Cambridge A Level. Non-staged option 360* hours per Cambridge A Level, normally spread over two years.

^{*} Includes teaching time and directed study. Does not include the independent study the learner is expected to carry out. It is recommend that learners are given opportunities for independent study outside of normal timetabled lessons for Cambridge Upper Secondary and Cambridge Advanced courses.

There are many models for constructing a timetable. However, timetabling should take into account not only providing a schedule of lessons for particular learners in a year group, but also the practical considerations of having the right staff and the right rooms and facilities available for them to take place. The following simplified example is based on practice in one Cambridge school and is intended to illustrate one approach. Detailed consideration of different timetable options is beyond the scope of this guide.

Table 6: Example of school timetable

Period	Time of day	Year 8 class	Year 12 class
1	8:00-8:40	English	Art
2	8:40-9:20	Arabic	Business Studies IT
Break			
3	09:40-10:20	Religious Studies	Mathematics
4	10:20-11:00	Mathematics	
5	11:00-11:40	Science	English
6	11:40-12:20		
Lunch			
7	13:00-13:40	Physical Education	Chemistry/History/Geography
8	13:40-14:20		Second Language (French, Mandarin, Spanish)
9	14:20-15:00	Geography	manuann, spanisn)

In this timetable, the day is divided into nine teaching periods of 40 minutes. For the Year 8 level (typically 12–13 year olds studying a blend of Cambridge Upper Secondary and the school's own curriculum) most periods are single periods of 40 minutes in length. Periods can be combined to form double periods which allow an extended amount of time for particular subjects or activities. For example, the double period for science gives the time needed to carry out practical experiments, and for physical education it includes the time needed for changing.

In Year 12, (typically 16–17 year olds studying for Cambridge AS Levels) subjects are mostly scheduled with double periods, providing 80 minutes for each lesson. Each subject has equal amounts of allocated teaching time, with three double periods and one single period throughout the week, equating to four hours and 40 minutes per subject per week. Because of the greater degree of specialisation at this level, it is possible for the school to schedule subjects to be taught at the same time (for example chemistry, history and geography in the example given above) if no learners want to study more than one of the combinations of subjects timetabled together.

Some schools have longer school days for older learners so that more time is available. This could be every school day or specific days. Extending the day to accommodate the curriculum is a way of increasing the amount of teaching time for subjects, or increasing the number of subjects on offer. Depending on a learner's choice of subjects, they may have study periods allocated in the school day to work on projects or to study in the library. This is consistent with the aim of creating independent and responsible learners but will also depend on the school's ability to provide the facilities learners need and the school's attitude to learners' time management.

The length of timetabled periods can have an impact on the types of pedagogy used in the classroom. Teachers will often adapt their teaching style and the types of activities they create to fit the available lesson duration. There is a tendency for shorter periods to become dominated by whole class instruction. Longer lessons can become wasteful if teachers have not planned and prepared enough work to fill the entire lesson. The school's quality assurance programme

should ensure that teachers have the right amount of time for engaging and effective lessons. Ideally, there should be enough time for the teacher to run several different activities which collectively fulfil the prescribed requirements of the syllabus or curriculum.

2.8 Teaching Cambridge Programmes in school systems with different requirements for the formal years of schooling

The Cambridge pathway has 13 stages and typically, a stage is covered in one year. However, in some countries, schools teach Cambridge stages in shorter or longer time periods, due to differences in the number of formal schooling years. Schools can also choose to teach some Cambridge programmes over different lengths than those most commonly adopted to meet local needs. Cambridge programmes are designed to be flexible and the following examples illustrate how some schools or regions adapt the Cambridge pathway to suit their own circumstances and needs:

Case Study 1:

The Cambridge continuum in 12 years: the experience in Southern Africa

Countries in Southern Africa typically have 12 rather than 13 years of formal schooling. Students start school aged 6 years old in grade 1. Secondary school usually starts at grade 8, when students are 13 years old. Some schools choose to base their school curriculum around Cambridge while others offer Cambridge alongside the national curriculum. In primary and lower secondary it is the norm for Cambridge to be used to complement national curriculum requirements or the school's own curriculum offer. In the IGCSE and A level years some schools choose to use Cambridge as an alternative to the national curriculum while others allow students to complete both providing extra lessons and support for Cambridge preparation.

Most Cambridge schools teach IGCSE over two years in grade 10 and 11 and sit final IGCSE assessments when students on average are 16 years old, while a few schools offer IGCSE over 18 months. Typically, students go on to do Cambridge

Case Study 1 *continued*

AS Level qualifications in the final year of school (grade 12). In some countries, IGCSE is considered the equivalent of the local school leaving certificate and schools teach up to this level. In others, AS Level is accepted as the equivalent to matriculation and the entry standard required for universities. A few schools also offer a post matriculation year grade 13 for students to do the full A Level programme (AS plus A2).

Some schools choose to accelerate Cambridge. This usually involves starting secondary school one year early at grade 7. Students complete Lower Secondary in grade 7 and 8, completing Cambridge Secondary 1 Checkpoint assessments at the end of grade 8 before moving to IGCSE which is taught in grades 9 and 10. Students then go on to do the A Level over two years. Students then have time to do AS Levels over two years (which also might also include resitting some IGCSEs). For students aspiring to the full A Level [AS and A2] they can do the staged AS to A2 route or the full A Level over two years and still graduate in grade 12. Completing the full A Level will help students who want to go to competitive universities overseas and also provides additional points strengthening their application to universities in southern Africa.

A few schools offer very flexible pathways at the secondary level. Students who perform particularly well are allowed to take IGCSE courses over one year, usually in subjects they plan to take through to the full A Level. In a few cases, students can take IGCSEs over three years. This degree of flexibility requires a timetable built around individual student needs and strengths and which can be challenging for schools.

Case Study 2:

The Cambridge Pathway in 12 years: Case study example of Saudi Arabia and Bahrain

Schools in Saudi Arabia and in Bahrain deliver a 12 year programme from the age of 6 to 18. It is not permitted to begin Grade 1 at the age of 5, nor can a school be licensed to deliver a 13 year programme ending at the age of 19. This leaves schools with the challenge of delivering the 13 year Cambridge Pathway in 12 years.

Case Study 2 continued

Figure 3 (below) shows three different ways that schools structure the Cambridge Pathway from Primary to Advanced.

In all structures, candidates sit for Cambridge IGCSE, Cambridge International AS & A Level at the same age and Grade or Year; IGCSE – Grade 10 (Year 11 in the UK), AS – Grade 11 (Year 12 in the UK), A Level – Grade 12 (Year 13 in the UK).

Age of compulsory education in the Middle East

Year of external asssessment

Figure 3: Three different structures used for teaching the Cambridge Pathway.

Structure 1*		Structure 2		Structure 3				
Age	Cambridge Stage	Year/Grade in KSA	Age	Cambridge Stage	Year/Grade in KSA	Age	Cambridge Stage	Year/Grade in KSA
5-6	Cambridge Primary (1)	KG2	6-7	Cambridge Primary (1)	1	6-7	Cambridge Primary (1)	1
6-7	Cambridge Primary (2)	1	7-8	Cambridge Primary (2)	2	7-8	Cambridge Primary (2)	2
7-8	Cambridge Primary (3)	2	8-9	Cambridge Primary (3)	3	8-9	Cambridge Primary (3)	3
8-9	Cambridge Primary (4)	3	9-10	Cambridge Primary (4)	4	9-10	Cambridge Primary (4)	4
9-10	Cambridge Primary (5)	4	10-11	Cambridge Primary (5+6)*	5	10-11	Cambridge Primary (5)	5
10-11	Cambridge Primary (6)	5		(Cambridge Primary Checkpoint)		11-12	Cambridge Primary (6)	6
	(Cambridge Primary Checkpoint)		11-12	Cambridge Lower Secondary (7)	6		(Cambridge Primary Checkpoint)	
11-12	Cambridge Lower Secondary (7)	6	12-13	Cambridge Lower Secondary (8)	7	12-13	Cambridge Lower Secondary (7+8)**	7
12-13	Cambridge Lower Secondary (8)	7	13-14	Cambridge Lower Secondary (9)	8	13-14	Cambridge Lower Secondary (9)	8
13-14	Cambridge Lower Secondary (9) (Cambridge Lower Secondary	8		(Cambridge Lower Secondary Checkpoint)			(Cambridge Lower Secondary Checkpoint)	
	Checkpoint)		14-15	Cambridge IGCSE Year 1 (10)	9	14-15	Cambridge IGCSE Year 1 (10)	9
14-15	Cambridge IGCSE Year 1 (10)	9	15-16	Cambridge IGCSE Year 2 (11)	10	15-16	Cambridge IGCSE Year 2 (11)	10
15-16	Cambridge IGCSE Year 2 (11)	10	16-17	Cambridge International AS &	11	16-17	Cambridge International AS &	11
16-17	Cambridge International AS &	11		A Level Year 1 (12)			A Level Year 1 (12)	
	A Level Year 1 (12)		17-18	Cambridge International AS &	12	17-18	Cambridge International AS &	12
17-18	Cambridge International AS & A Level Year 2 (13)	12		*See Structure 2 information on the next pa	20		** See Structure 3 information on the next pa	200

Implementing the curriculum with Cambridge: A guide for school leaders

Case Study 2 continued

In Structure 1, schools begin delivering Cambridge Primary in the equivalent of reception i.e. KG2 (the second year of Kindergarten), and begin Cambridge Primary stage 2 in Grade 1 at the age of 6. Although this structure is designed according to Cambridge's recommended age guidelines, it is challenging to implement. The main challenge is that most new enrolments at Grade 1 (which usually accounts for over 50% of students) are from children that had no prior formal education experience, making stage 2 of the Cambridge Primary programme a challenge to teach. By using this structure, candidates sit for the Cambridge Primary Checkpoint in Grade 5 (equivalent to Year 6 in the UK) and Lower Secondary Checkpoint in Grade 8 (equivalent to Year 9 in the UK).

In Structure 2, schools begin delivering Cambridge Primary in Grade 1 (equivalent to Year 2 in the UK), and compress the Cambridge Primary Programme into 5 years. This is typically done by covering Stage 4 and 50% of Stage 5 of the Cambridge Primary curriculum in Grade 4, and covering the remaining 50% of Stage 5 and Stage 6 in Grade 5. By using this structure, candidates sit for the Cambridge Primary Checkpoint in Grade 5 (equivalent to Year 6 in the UK) and Lower Secondary Checkpoint in Grade 8 (equivalent to Year 9 in the UK).

Structure 3 is the most common way the Cambridge Pathway is delivered. Schools begin delivering Cambridge Primary in Grade 1, and teach the six stages in six years. This way, any new students joining the school during primary, don't face the challenge of having to cover more content in a shorter period. They then compress Cambridge Lower Secondary by teaching the three stages of the curriculum in two years. They achieve this by delivering Stage 7 and 50% of Stage 8 in Grade 7, and the remaining 50% of Stage 8 together with Stage 9 in Grade 8 (as shown in Table 7).

Table 7 compression stages 7-9 into two years

Stage 7	Stag	ge 8	Stage 9
Grade 7		Gra	de 8

Case Study 2 continued

Example of Structure 3

A school in Bahrain covers the content of all three stages effectively in approximately 64 teaching weeks (32 in Grade 7, 32 in Grade 8) by delivering 9 periods a week for science (chemistry x 3, biology x 3, physics x 3), eight periods a week for English, and eight periods a week for mathematics (each period is 45 minutes). This school has found the planning templates Cambridge provides as an effective tool to support planning the delivery of these three stages – in particular the long-term planning templates with learning objectives. The cumulative grade distribution at IGCSE for School A is higher than the country's average – an indication that this structure has worked effectively for their students.

Case Study 3:

Covering the Cambridge Primary programme in five years at HLC International School, Karanai, India

HLC serves students aged 2.5 to 18 years old (from Kindergarten to pre-university). It bases its curriculum around the Cambridge Pathway, offering Primary and Secondary Checkpoints, IGCSE, AS and A Levels. The school strongly emphasises and supports inclusion and diversity and strives to develop the whole person through five initiatives. Supporting inclusion and diversity [Elina]; Differentiated instruction based on evidence [Kognify]; Global citizenship [Karthauyam]; collaboration and sport [Explorers]; and community learning [Militvaa]. The school was one of the first Ashoka Changemaker schools in the world.

One challenge the school faces is that the school system in India is based on 12 rather than 13 years of schooling. In order to cover the six stages of Cambridge Primary in five years, the school has re-organised the stages - placing some a year earlier. Some stages are introduced in the final year of Kindergarten so that students are accelerated into the programme. Teachers have taken the Cambridge curriculum and carefully planned their schemes of work for each year with progression in mind. Expectations for progression for all students are high and students are supported through the Elina and Kognify initiatives.

Case Study 4:

Teaching Cambridge IGCSE in One year at the RDFZ Chaoyang Branch School in Beijing

RDFZ Chaoyang Branch School (RDFZ CBS) is a secondary school. It is a branch of RDFZ, which is affiliated to Renmin University of China under the jurisdiction of the Ministry of Education. The school offers the best of Chinese education together with an international programme that complements the local requirements. In addition to the mandatory Chinese curriculum, RDFZ CBS provides a range of international courses, some compulsory, but many are voluntary. The school strives for academic excellence and the development of broader skills and competencies supporting the development of individual interests.

The main component of the Senior 1 programme (Year 10) are Cambridge IGCSEs. They are intensively taught over the course of nine months from September to May. All of the students are Chinese nationals so are second language English speakers. Students must study English, either English as a second language (or literature for the more able), mathematics and a science - they can choose from biology, chemistry, environmental management or physics). Students can then pick an additional three option subjects from a choice of: accounting, art & design, biology, business studies, chemistry, drama, economics, environmental management, ICT, music, or physics. Examination results are pleasing typically with 48% receiving A* or A.

The timetable is made up of 45, 40-minute periods in a week. All students do eight lessons of English and weaker students also do 5 lessons of extra English (taught by bilingual teachers). All other Cambridge IGCSE subjects are taught in five lessons per week. Students must also complete all compulsory elements of the Chinese curriculum. This includes Chinese language & literature, Chinese music, Chinese art, PE, Chinese history, geography, PE, political science and counselling. Students also have to do two extra-curricular activities after school on a Tuesday and a Thursday. They choose from over 100 activities which are offered by the staff.

Case Study 5:

A broad and balanced curriculum offer at the International School of Brunei

The International school of Brunei (ISB) is an inclusive and not-for-profit coeducational day and boarding school serving approximately 1,400 students aged 2-18 through the early years, primary and secondary sections. The student body comprises over forty different nationalities. The school emphasises academic success and the self-development of students through involvement in a wide range of sport, music, art, drama and outdoor education and is a non-selective school, with a wide range of abilities and aptitudes.

CLICK AND HOLD TO ENLARGE

The curriculum for students between the ages of 13 and 16 (years 9, 10 and 11 in the UK system) is designed around the IGCSE. A student's compulsory (core) curriculum requirement is made up of English, mathematics, coordinated science or two single sciences, and a language.

Case Study 5 continued

To widen the curriculum offer, and create the flexibility that the ability range requires, the school starts vertical option blocks in Year 9. Under this system, options are chosen and these run for one year, with the recommended Cambridge time allocation. This creates a range of benefits: minority subjects run as choices across much bigger student totals comprising three year groups, international student movement is better accommodated through the one year cycle and the problem of subjects being over-subscribed is eradicated as the system is not a 'one-off'.

Furthermore, it greatly helps to create additional subject challenge for the higher ability Year 9 and 10 students outside the normal l examination cycle. In addition, due to the overall time savings (six hours per week), accrued through early IGCSE study, the school is able to offer a wider range of enrichment opportunities based on staff interest and expertise, which are scheduled on the main timetable and viewed as part of the formal curriculum and not as extra-curricular. These run after school and in lunchtimes.

In terms of student welfare, it could be argued that there is a benefit to spreading the examinations over three years, rather than confining them all to the end of Year 11. Through this system, students are able to study a broader and more balanced curriculum, allowing them more opportunity to explore areas of personal interest and develop a wider range of skills and understanding. Physical education and a school based course on 'essentials for learning and life' are also taken by all and are non-examinable. These are not shown in the diagram.

2.9 Curriculum models for bilingual and multilingual schools

Many schools find it ideal to use Cambridge programmes and qualifications for the English-medium (second-language) strand of a bilingual (or trilingual) education programme. They then use their own national curriculum and qualifications for the first-language strand of the programme.

There are many ways of organising bilingual education and the best approach will depend on the school vision and practical considerations, including resources, suitable teaching staff, environment and the exposure of learners to English language outside the school.

A bilingual/multilingual curriculum model is based on how many subjects are taught and learnt through each language and over how much time.

For example, some schools:

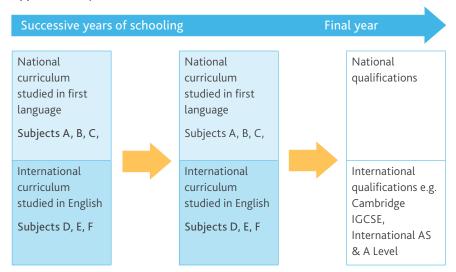
begin in a small way by teaching one module or project in English	Short-term	Low intensity
 prepare learners by immersing them in English for a short period, e.g. through overseas student exchanges, or by teaching all curriculum subjects in English for one school term 	Short-term	High intensity
teach one or two content subjects in English over several years	Long-term	Low intensity
teach a substantial part of the curriculum in English over several years	Long-term	High intensity

Fundamental to all these approaches is having teachers who are able to teach their content through the medium of English. Cambridge recommends content and language integrated learning (CLIL) as a methodology to support this process. This means teachers are supporting students in learning the language they need to achieve in their subjects. Schools will need a training strategy to allow local teachers to build up their second-language skills so they can teach their subject through the medium of English unless teachers are already well prepared.

Bilingual education usually requires meeting the needs of two curricula – a national (or sometimes regional) curriculum and an international curriculum. How do schools organise the timetable?

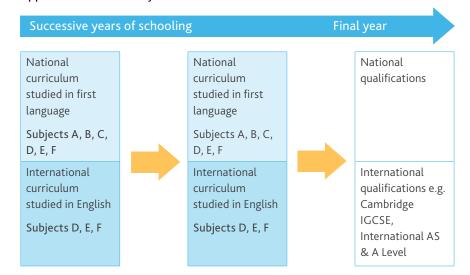
There are two key approaches.

Approach A: Split curriculum



In Approach A, learners study some subjects as part of the national curriculum and other subjects as part of an international curriculum. In this way the problem of double timetabling is avoided. This model is only possible if equal official recognition is given to the qualifications taken in both curricula.

Approach B: Shared subject currciulum



In Approach B, learners study some subjects in both the first language and English. This could allow learners to take both national qualifications and Cambridge qualifications. They study the remaining subjects in the first language. The common subjects (D E F) could be taught using:

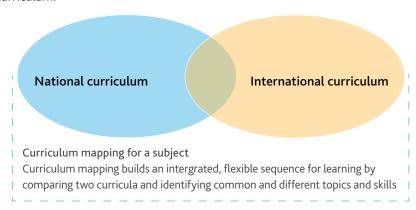
- An integrated curriculum. Teachers should first compare the national curriculum against the Cambridge curriculum for a subject. This will allow them to identify areas of overlap and difference and help them work out what they need to teach in total. Then they can teach the integrated curriculum:
 - either in the same class using one bilingual teacher or two team-teachers, one for each language/curriculum. In this way, the same teaching and learning can enable learners to take two qualifications – the national qualification in the first language and the Cambridge qualification in English.

 or rotating classes/weeks/topics/terms/years between the first language and English. Sometimes the learning is rotated or sandwiched over several years. In this way, learning starts in the early years with the national curriculum through the first language, then switches for a period of years to the Cambridge curriculum, when this 'learning in English' period allows learners to work towards international qualifications, before returning to national curriculum priorities in the final years.

An integrated curriculum means that learning is streamlined for the benefit of the learner – the learner just goes to one timetabled class for a subject. However, this does require curriculum mapping, planning and teacher coordination.

2. Two separate curricula. The national and Cambridge curricula for a subject are covered in separate classes and languages, with no mapping of areas of overlap/difference.

If the curricula are separate, the learner is probably aware they are going to a national curriculum class and then to a separate Cambridge (e.g. IGCSE) class. Also, some of the learning may be duplicated. However, this may be easier for the school to organise if it is difficult to map the two curricula, if there is not enough overlap between curricula, or if there is a language barrier which prevents teachers coordinating to produce and teach a single, integrated curriculum.





Learners in all Cambridge schools need to be able to complete their studies and undertake assessments in subjects through the medium of English. This can be challenging for learners with English as a second language, but there are educational advantages in supporting language development and bilingualism. Not only are learners better prepared for participation in the modern global world, bilingualism also helps support individual cognitive development.

Even if a school is not running a bilingual education programme, there are other ways of developing 'language awareness' in international English-medium schools in order to help support bilingualism or multilingualism. An effective language policy can help to achieve this. Cambridge is committed to supporting schools to develop and implement strategies successfully to support learners in multilingual settings. Cambridge ensures that assessments are fair to learners who do not have English as a first language.

More information is available here.

Case Study 6:

Supporting the development of multi-lingualism and global perspectives in the Netherlands

A number of state schools in the Netherlands complement the national curriculum with Cambridge programmes, using the support of Nuffic. Nuffic is an independent, Dutch, not-for-profit organisation dedicated to supporting institutions in the Netherlands with educational and other programmes that foster international co-operation, awarness and language development. Two examples are the Christelijke Scholengemeenschap [CS] Vincent van Gogh in Assen and the Sintermeerten College, Heerlen.

CS Vinvent Van Gogh supports the development of critical thinking, global awareness and English proficiencey by requiring all students to complete Cambridge IGCSE and AS Level Global Perspectives and IGCSE English as a Second Language. Cambridge Global Perspectives is taught as a separate class and IGCSE English as a Second language is integrated into regular English lessons. Global Perspectives fits in particularly well with the international scope of the school's bilingual education, as well as nurturing important research skills and IGCSE English as a Second Language is an ideal way to show that students have reached CEFR B2, as well as a good extra certificate for students at the end of Year 3.

Sintermeerten college requires all students in the bilingual programme to take Cambridge Global Perspectives at IGCSE and AS Level. Cambridge Global Perspectives has been successful at supporting the development of English language and research skills and provides a stimulating and relevant course for bilingual students. The school has recently introduced IGCSE History as an option to challenge the more capable students and they have found this course challenging because of the level of English demanded. The school is considering other Cambridge options, for example AS English and possibly a science.

This chapter considers approaches to instruction that have the highest impact on students' learning and performance and support the development of the Cambridge learner and teacher attributes.

Further reading about the ideas in this chapter is available in:

- The Developing the Cambridge learner attributes guide
- Chapter 4 of the 'Developing your school with Cambridge' guide and;
- Other resources in the 'Teaching Cambridge at your school' area of the Cambridge International website

3.1 The Cambridge teacher

Excellent teaching – including the development of the learner attributes – is the single most significant factor impacting on learners' academic performance and personal growth that a school can influence. Successful schools, and successful school systems, develop and nurture highly skilled teachers who are encouraged to be creative professionals working in a collaborative culture.

It is important to stress that there is no single recipe for excellent teaching, and that different schools, operating in different countries and cultures, will have strong traditions that should be respected. However, there is a growing, evidence-based consensus that a certain number of powerful practices and approaches help learners fulfil their potential and be prepared for modern life.

Understanding cannot be transmitted from one person to another; it is always constructed in learners' minds. In order to develop a learner's understanding, their existing mental models must be challenged and extended. Teachers have to listen to the voice of the learner, in the classroom and as evidenced in the work they produce, and engage with it to support learning to help the learner develop their own understanding. This process helps to develop independent learners as they start to model the teacher's approach.

The most effective teaching practices and learning environments challenge learners' thinking beyond what they could achieve independently. The role of the teacher is to support (sometimes referred to as 'scaffold') student learning in what Vygotsky (1978) described as the 'zone of proximal development'. This is the area of challenge beyond what the learner can manage on their own but achievable with the help of a skilled other person. As a collection of practices and principles, Cambridge International describes this as 'active learning'. The word 'active' refers to learners' being actively engaged in learning rather than passive recipients of teaching. Teachers also need to be active leaders of learning rather than transmitters of knowledge or facilitators of learning. This involves constantly challenging student thinking, monitoring the impact of their instructional approaches and adjusting what they do based on feedback. See the 'Getting started with Active Learning guide'.

Teaching and learning strategies

Teachers need to employ a variety of teaching strategies in the classroom. This will normally include carefully-designed individual learning activities, group work and whole-class instruction. The key element is the quality of learner engagement and the opportunities provided for feedback between the learner and teacher to guide the next learning steps. Whole class instruction can be a highly effective instructional approach if it includes discussion and learners have the opportunity to respond and contribute.

Teachers should apply assessment practices that regularly inform them whether learners are reaching their objectives. These assessment techniques also allow learners to understand where they are on their learning journey and how they can improve (see the 'Getting started with Assessment for Learning guide').

Teachers as role models

Outstanding teachers model the Cambridge learner attributes. They are confident, responsible, reflective, innovative and engaged because they:

- Have mastery of their subject area. They can relate concepts and skills in such a way that students learn to understand and appreciate the nature of the academic discipline they are studying, and what constitutes excellence for the developmental stage they are teaching.
- Teach for understanding as well as coverage. They have the ability to engage
 with learners' mental ideas about the really important concepts, and take
 them on a journey of discovery. This approach requires learners to revisit
 concepts over an extended period of time and within different contexts. This
 spiralling strategy reinforces learning and leads to deeper levels of
 understanding.
- Connect learning to the real world. They connect learning to other topics in the subject, other disciplines and the experience of learners – making learning relevant.
- Scaffold learning. Teachers need to constantly challenge student thinking in
 the proximal zone of development. The optimal level of performance for a
 learner is the level that they can reach when they receive expert support, as
 distinct from the functional level, which they can achieve independently.
 Scaffolding learning helps to close this gap.
- Have a learning rather than a performance orientation. Chris Watkins (2010) points out that too many schools and teachers are more concerned about students looking good rather than learning well. There is considerable evidence that learning to learn is an effective strategy at raising student performance and preparing them to be independent, self-regulated learners equipped for modern life.
- Are able to model problem solving and consider themselves as mentors as much as teachers. They are concerned with the holistic development of the learner and understand the critical role that attitudes, emotions and self-

- confidence play in learning. They communicate a love of learning and believe every learner can achieve.
- Understand, and can apply, assessment for different purposes. They have an
 excellent grasp of summative assessment practices, but they also understand
 how to use assessment to support student learning. This is the process of
 identifying what the learner has or has not achieved in order to plan the next
 steps in learning and provide appropriate support.
- Use a variety of different teaching strategies and activities. This includes
 whole class instruction, collaborative group work and creative assignments
 and activities, as well as overseeing individual learning.
- Are reflective and creative practitioners engaged in ongoing effective professional learning.
- Are collaborative and supportive of their colleagues, the school and the school's community.

In order to support schools, Cambridge has developed a set of teacher standards which define the key professional characteristics and practices that teachers should develop to enable effective student learning in Cambridge schools. The standards can help to provide benchmarks against which teachers and their schools can evaluate their current practice and plan future development. They can show how the Cambridge Teacher and Cambridge Leader attributes are demonstrated in practice and they can contribute to the development of a shared frame of reference within which schools can work to improve the quality of teaching and leadership. The standards are flexible and have been developed so that they can be used to best effect in each school context providing a benchmark of what Cambridge considers to be teacher quality. See here:

3.2 The Cambridge learner and teacher attributes

Schools want their learners to combine both a deep understanding of their own culture and nation, with the skills to be global learners who are able to contribute and adapt to the uncertainties of the modern world. Cambridge introduced the learner/teacher attributes (Table 8), which recognise that a

meaningful curriculum is more than a collection of different subjects. Learners need to develop the academic abilities, life skills and attitudes needed to be successful in higher education and in the world of work.

The purpose of the Cambridge learner and teacher attributes is to support the development of five powerful and highly desirable learning habits that will

inspire students to love learning and help them to lead fulfilled and successful lives. Students who demonstrate the attributes habitually and skilfully employ a broad range of cognitive skills and socio-emotional skills (including personality qualities such as resilience, self-motivation and self-regulation) towards effectively managing their performance.

Table 8: Learner and teacher attributes

	Cambridge learners	Cambridge teachers
Confident	Confident in working with information and ideas – their own and those of others. Cambridge learners are confident, secure in their knowledge, unwilling to take things for granted and ready to take intellectual risks. They are keen to explore and evaluate ideas and arguments in a structured, critical and analytical way. They are able to communicate and defend views and opinions as well as respect those of others.	Confident in teaching their subject and engaging each student in learning. Cambridge teachers know their subject well and know how to teach it. They seek to understand their students and their educational needs. They strive to communicate a love of learning and to encourage students to engage actively in their own learning.
Responsible	Responsible for themselves, responsive to and respectful of others. Cambridge learners take ownership of their learning, set targets and insist on intellectual integrity. They are collaborative and supportive. They understand that their actions have impacts on others and on the environment. They appreciate the importance of culture, context and community.	Responsible for themselves, responsive to and respectful of others. Cambridge teachers are highly professional in their approach to teaching, and they are collaborative and supportive. They understand that their actions will help shape future generations and they are concerned about the holistic development of every individual they teach.
Reflective	Reflective as learners, developing their ability to learn. Cambridge learners understand themselves as learners. They are concerned with the processes as well as the products of their learning and develop the awareness and strategies to be life-long learners.	Reflective as learners themselves, developing their practice. Cambridge teachers are themselves learners, seeking to build on and develop their knowledge and skills through a virtuous circle of reflection on practice – involving research, evaluation and adaptation. They support students to become independent and reflective learners.
Innovative	Innovative and equipped for new and future challenges. Cambridge learners welcome new challenges and meet them resourcefully, creatively and imaginatively. They are capable of applying their knowledge and understanding to solve new and unfamiliar problems. They can adapt flexibly to new situations requiring new ways of thinking	Innovative and equipped for new and future challenges. Cambridge teachers are creative, experimenting with new ideas and pursuing an enquiring approach in their teaching. They are open to new challenges, being resourceful, imaginative, and flexible. They are always ready to learn and apply new skills and techniques.
Engaged	Innovative and equipped for new and future challenges. Cambridge teachers are creative, experimenting with new ideas and pursuing an enquiring approach in their teaching. They are open to new challenges, being resourceful, imaginative, and flexible. They are always ready to learn and apply new skills and techniques.	Engaged intellectually, professionally and socially, ready to make a difference. Cambridge teachers are passionate about learning within and beyond the classroom, sharing their knowledge and skills with teachers in the wider educational community.



These attributes are not intended to be exhaustive. Schools may want to supplement them with others derived from the school's vision. To make the learner attributes more meaningful, school leaders should actively engage the school community with them, helping people understand why they matter and how they fit in with the school mission.

Subject curricula are more than subsets of knowledge to be taught and assessed by teachers and learned by students. They are the basis for the teaching and learning programmes that teachers use to express and deliver their wider expectations of learners. When planning lessons, teachers can build in opportunities for students to participate in learning activities and events that help grow and advance the development of learner attributes – consistent with the active learning approach described in the previous section.

The learner attributes apply across the curriculum and need to be supported both through the school's curriculum and co-curricular programmes.

When designing the school curriculum, it is important to ensure a breadth and balance of subjects and educational activities that contribute to cognitive, creative and psychomotor development. Some subjects lend themselves particularly well to collaborative work, creative expression and developing learner research skills, whether individual or collaborative (for example Cambridge Global Perspectives).

Having a rich selection of co-curricular activities will provide learners with opportunities to develop the inter- and intra-personal skills described in the attributes.

The school's environment, culture and the unacknowledged learning that permeates the school community beyond the classroom, will also have an important role in nurturing these attributes. Hence, the whole school community needs to be engaged with them.

In every school there will be some discrepancy between planned learning outcomes and the experience learners actually receive. It is extremely important to monitor and evaluate the experienced curriculum to see if what learners actually experience corresponds to what was intended. School evaluation procedures involving learners, teachers and parents can provide insightful feedback (see Chapter 4).

6 Becoming a reflective learner also requires being confident, responsible, innovative and engaged.

3.3 Becoming a reflective learner

The reflective attribute highlights the importance of learners understanding themselves as learners. This requires them to constantly reflect on their learning and accurately judge their own progress. They are able to employ a range of strategies to overcome the learning challenges they will inevitably face. Becoming a reflective learner also requires being confident, responsible, innovative and engaged. All of the learner attributes are interconnected.

Reflective learners:

- are effective at planning and managing their work and performance and accurately evaluating their progress
- understand themselves as learners and the nature of the knowledge they are learning
- apply their understanding to performance, constantly monitor what they are doing and produce appropriate responses
- are able to think both critically and creatively so as to overcome barriers to learning and engage with subject content deeply
- · learn from mistakes and see failure as a learning opportunity
- are emotionally resilient when confronted with setbacks
- are confident, but not arrogant, in working with others and sharing ideas
- care about the learning of others and realise that learning is social and collective.

While most schools would agree that learning how to become a reflective learner is critical, many assume that learners will develop these skills independently and so it is not considered as part of the curriculum.

All teachers should prioritise and understand their role in helping students to learn how to learn. Some schools have tried to teach learning/reflective/study skills as an extra course. Separate classes tend not to be very successful because learning strategies and reflective practice are best developed in the context of the learning students experience in their classes.

Effective learners understand that learning is an active process involving questioning, discovery of barriers, devising strategies to overcome the barriers, constantly evaluating progress and changing what they do if it does not work.

Less effective learners often take a passive approach. When trying to revise, for example, they read and re-read books and their notes, trying to absorb the material. This is based on the false premise that understanding can be transmitted from a text (or a person) to the memory.

Active learning has to be deliberately practised in different contexts, and supported by the school and individual teachers who understand and model the practices themselves. This will not happen unless it is emphasised as a curriculum competence and supported by structures and systems that emphasise:

- clearly identifying learning aims and objectives in each subject
- the development of concepts (and therefore language) that help individuals understand and describe the learning process they are going through
- emphasising a holistic understanding of each academic discipline, building bridges between what is learned in one context and in another
- ongoing professional development for teachers and the creation of professional learning communities that support teaching practice.

Reflection and learning to learn are considered in more detail in chapter 3 of the 'Developing the Learner Attributes' guide.

3.4 Disciplinary and inter-disciplinary approaches

Schools usually, and for good reason, design the school curriculum around the provision of a balance of different subjects appropriate for each age group. However, there are many areas of overlap between subjects. The school curriculum should therefore enable students to develop a holistic understanding of themselves as learners, and to reflect on the similarities and differences between different subject approaches.

The main reason for including academic disciplines in the curriculum is that they nurture the ability to think critically and solve problems with applications that are not easily acquired from everyday experience. Michael Young describes this as 'powerful knowledge' (see Young, 2013). The humanities, social sciences, science, mathematics, languages and the arts - when well taught and appropriately assessed - all develop the ability to think critically and creatively. They do this in ways that are not easily transferable to other contexts.

In order for students to become effective critical and creative thinkers in everyday life, they need to be able to reflect on and apply approaches they learn

in academic disciplines in an interdisciplinary way. Interdisciplinary understanding is extremely important. It refers to the ability - and confidence - to navigate between disciplines, make connections and develop a holistic appreciation of knowledge that provides new perspectives.

Disciplinary understanding needs to be the foundation on which a rigorous interdisciplinary approach is based. Without this foundation, learning can lead to superficial coverage and confusion. Teachers, backed by a supportive curriculum, can help make connections in students' minds between what they learn in one context and another.

Excellent schools support the development of interdisciplinary understanding by expecting teachers to plan collaboratively. Teachers need to understand what their colleagues are teaching to a particular year group in order to make connections with their own classes. Some schools identify interdisciplinary links in the curriculum. This may be done in an informal way with individual teachers sharing their teaching plans in the staff room, or during meetings scheduled for this purpose. One simple example of this would be where students have learned some statistical skills in mathematics, and the geography teacher makes them apply this knowledge to their geography coursework, thereby reinforcing the concepts.

Another way of reinforcing interdisciplinary links is to have curriculum coordinators examining the learning across particular age groups, helping to identify and support meaningful connections. This complements the work of heads of department, who oversee coherence and consistency within a vertical subject curriculum.

Curriculum planning is very important when it comes to choosing the activities, courses and qualifications that will enable learners to draw on their experiences across the curriculum in order to think in interdisciplinary ways. Learners need to be challenged, required to produce extended project work and make presentations on their findings, working collectively and individually on different assignments. This is the approach adopted in Cambridge Global Perspectives.

Cambridge Global Perspectives

Cambridge Global Perspectives is an interdisciplinary programme, offered at Cambridge Primary, Lower Secondary, IGCSE, AS & A Level.

Cambridge Global Perspectives focuses on the nature of argument and evidence, encourages understanding and respect for the perspectives of others, and develops a range of skills needed for success in higher education and the world of work in the 21st century.

Students learn to appreciate a variety of alternative perspectives on global issues where ideas and interests compete and there are no easy answers. They learn how to evaluate different arguments, in particular the evidence and reasoning used to support them, as well as to improve the quality of their own arguments. These important skills are transferable to learners' other subjects.

Through studying global topics, learners gain an international context in which they can develop their skills. Students develop flexible, reflective, creative and critical thinking. They learn how to research issues, arriving at well-reasoned and evidence-based conclusions. Students also learn to work collaboratively with others and effectively communicate and critique ideas so that they become more confident, responsible, reflective, innovative and engaged.

Cambridge Global Perspectives can be taught as a stand-alone subject. However, schools can also opt to use Cambridge Global Perspectives as the curriculum core. This places it at the heart of the school curriculum and emphasises its interdisciplinary nature. Teachers of other subjects would be made aware of its learning and assessment objectives and, where applicable, support them in the teaching of their own subject. Learner research and project work would be coordinated, with subject-expert teachers acting as mentors across the curriculum.

3.5 Using conceptual frameworks to support learning

Concepts are a way of categorising things to make sense of a complex and diverse world. Through this grouping we create a shared framework for understanding, communication and action. Each school subject involves a large number of concepts. Substantive concepts are part of the substance or content

knowledge in a subject, for example in geography these might include 'river', 'trade', 'city' or 'ecosystem'. Second-order concepts shape the key questions asked in a subject and organise the subject knowledge, for example second-order concepts in history might include 'cause and consequence', 'change and continuity', 'similarity and difference' and 'historical significance'. There will often be an overlap of substantive concepts between subjects. A student might learn about 'renewable energy' in science, geography, economics and politics. There may even be some overlap of second-order concepts, for example 'change' in both history and geography. It is the particular combination of substantive and second-order concepts that makes each discipline distinct and unique.

A threshold concept is one that, once understood, modifies learners' understanding of a particular field and helps them to make progress to the next



level. It helps them to go through a 'doorway' into a new way of understanding a topic or subject (Meyer and Land, 2003).

Part of effective teaching, supported by effective curriculum and assessment planning, is identifying which concepts are most important or 'key' for a particular developmental stage of learning. Cambridge syllabuses help scaffold learning through identifying important concepts. However, teachers need to adapt these to their own circumstances and incorporate them into their lesson planning and instructional design. Thinking carefully about key concepts can help teachers and heads of Department to better understand their subject discipline, and to support their learners 'progress.

Key concepts help create an understanding of the structure of a discipline, providing opportunities to link, review and put knowledge into context. This helps learners to progress, as well as to think and behave as a skilled mathematician, historian, chemist etc. A key concept will often link one topic to another, for example in economics, the concept of 'opportunity cost' links other areas of the curriculum such as production possibility frontier and the theory of comparative advantage.

For more guidance see the 'Getting started with Key Concepts' guide.

3.6 Collaboration

Students need to learn to function effectively as team members and leaders, as this is an important ability in life and the workplace. They also need to learn to solve problems collaboratively. The Organisation for Economic Co-operation and Development (OECD, 2013, p. 6) defines collaboration as follows:

'Collaborative problem-solving competency is the capacity of an individual to effectively engage in a process whereby two or more agents attempt to solve a problem by sharing the understanding and effort required to come to a solution and pooling their knowledge, skills and efforts to reach that solution.'

Collaborative problem-solving requires teamwork where individuals actively, responsibly and productively work towards a shared goal. Individual responsibilities may change as progress or obstacles are met. The skills required to be an effective collaborator are different from those required to be a good

individual learner. Students need to be able to define the problem and ensure they have a joint understanding of what is being asked, think critically as a group, communicate and reflect on how well the group is progressing towards solving the problem. Collaboration is not the same as cooperation and this distinction needs to be understood by teachers planning group work.

Schools that focus on the learner attributes have a responsibility to provide opportunities for collaborative learning through well-planned learning activities. Many academic disciplines can provide such learning opportunities through collaboration, including social science fieldwork and science practicals, or project work in courses like Cambridge Global Perspectives and enterprise. The co-curricular programme provides opportunities for group work and collaboration.

3.7 Information literacy and using information & communications technology [ICT] in the classroom

Effectively using ICT resources is another essential skill all learners need to develop. Over the past decade, the use of digital technologies in classrooms has continued to expand. Desktops, laptops, tablets and smart phones are commonly used for learning, as educators find ways to employ today's technologies in school classrooms across all subjects. Including ICT-based resources and activities in teaching programmes can be challenging, but it is vital for today's generation of learners as they use ICT resources to access, process, evaluate and communicate information and data.

It is essential that ICT is used to support good classroom practice. Any technology used must enhance carefully planned teaching and learning goals - not replace them. One example of this is when teachers use technology, e.g. an interactive whiteboard, to develop understanding of new ideas in a way that engages the whole class as active participants rather than as another medium for the teacher to lecture. Cambridge offers professional development qualification courses and qualifications that focus on the optimum use of ICT in classrooms. See here for more information.

With an abundance of information on the internet information literacy has become critically important. Knowing how to access information is one skill but even more important is the ability to critically engage with the information and make balanced judgements about its meaning and reliability. This ability requires an understanding of the nature of the data and the area of knowledge to which it relates. For this reason information literacy needs to be at the heart of each discipline and an area of interdisciplinary inquiry. Information literacy, for example, is as the heart of Cambridge Global Perspectives.

This chapter considers the critical role played by school leadership in planning, implementing and evaluating the curriculum. The final section of the chapter considers ways of measuring the impact of interventions or changes in practice in order to make judgements about progress.

4.1 Leadership

Schools offering Cambridge International's programmes and qualifications operate using many different administrative structures. Many are state funded, while others are independent. Some schools are privately owned and commercial, while others are run by school boards and are not-for-profit. No matter what the structure, this chapter aims to highlight leadership principles and practices that are most likely to support the development of an effective school.

Effective schools are schools that:

- successfully progress the learning of all of their students, regardless of background, beyond their normal expected developmental rate of growth.
- ensure the educational experience students actually receive, including the impact of the school curriculum, teaching approaches, the co-curriculum and the learning environment, closely aligns to the school vision and educational aims.

Schools will assign different management responsibilities to different individuals within the senior administration team. All schools need to have an individual in the school, normally the principal or school head, who is the senior educational leader. In some schools, this role is separate from the school business head or chief executive, who is responsible for school administration. In other contexts, the business head is line managed by the principal, who has overall responsibility for the school. The focus of this chapter is very much on the role of the senior educational leader.

The Cambridge School Leader Standards define the key professional characteristics and practices that leaders should develop to enable effective

teaching and student learning in Cambridge schools. Teachers cannot achieve and sustain high quality outcomes for all students without effective leadership and so the Cambridge School Leader Standards identify and support the challenges of achieving such leadership. They confirm what successful leadership practice looks like and help leaders to determine areas and priorities for their own professional development.

The Standards are divided into eight headings (see figure 3) and 40 standards statements which are detailed and concrete. These enable users to understand how to demonstrate achievement in individual standards.



Instructional leadership

The Cambridge School Leader Standards place a clear emphasis on the role of the educational leader as an instructional leader.

Instructional leadership focuses on the quality of instruction and maintaining a focus on learning. Robinson's [2007] study of the leadership styles and behaviours that had the greatest impact on student outcomes, concluded that: "The more leaders focus their professional relationships, their work and their learning on the core business of teaching and learning, the greater their influence on student outcomes."

Robinson [2011] goes onto identify 5 key functions 'student centred' leaders engage in:

- 1. Establishing Goals and Expectations. This includes creating a positive and inclusive school climate focused on a culture of learning.
- 2. **Resourcing Strategically**. The focus is on using resources in strategic ways to maximum impact to optimise student learning.
- 3. Ensuring Quality Teaching.
- 4. Leading Teacher Learning and Development. Professional learning opportunities are focused on improving instructional impact.
- 5. Ensuring an Orderly and Safe Environment so that everyone in the school, students and staff, feel safe and supported.

6 Everyone in the school community - heads of department, heads of year, teachers and other educators, parents and students, are empowered to play an appropriate leadership role.

In effective schools, the principal is a strong instructional leader. Moreover, leadership is widely distributed as it is viewed more as a process than a position of responsibility. Everyone in the school community - heads of department,

heads of year, teachers and other educators, parents and students, are empowered to play an appropriate leadership role.

School administrators (including the principal, heads of department and heads of year) are responsible for building school capacity in a way that allows teachers to realise their full potential.

A number of the school's senior administrators should be actively involved with teachers, observing teaching and learning, and engaging in a professional discussion with teachers about what is happening in the classroom. This professional link can become a very powerful motivational force for teaching professionals, and critical for senior administrators in developing a deep appreciation of what is actually happening in the school.

Administrators need to support teachers so that they can concentrate on student learning and planning teaching. They are responsible for ensuring that the right structure is in place, and that there are enough appropriately qualified staff to deliver the curriculum. Roles and responsibilities need to be well defined and clearly communicated. Ideally, planning time is built into teachers' schedules so that they can work collaboratively in teams (in academic departments or year groups) on developing learning activities. Where possible and practical, teachers should be encouraged to visit each other's class and provide peer support to their colleagues. This is particularly important in developing less experienced teachers and a very cost-effective form of professional development.

Teachers also play a leadership role, in that they are involved in creating, implementing, monitoring, reviewing and refining practices and systems, and then measuring impact in order to improve student learning. Nurturing and using teacher talent in this way creates a virtuous circle of motivation, desire to learn more, commitment and enhanced practice. Working collaboratively to resolve collective challenges can also create a shared sense of purpose and a powerful instrument of change.

Listening to the learner voice is crucial to understanding their perspective on the curriculum and how it is implemented.

Leadership and management functions relating to the curriculum include:

1	Curriculum planning and evaluation
2	Teacher recruitment and evaluation
3	Professional development (PD).
4	Development and implementation of quality assurance policies and procedures.
5	Managing change
6	Involvement with the school and local community.
7	Management of the assessment process and relationships with Cambridge (exams officer).
8	Timetable (considered in the previous chapter).
9	Student admissions, progression through the school and guidance on to higher education.
10	Measuring impact



4.2 Curriculum planning and evaluation

Periodic curriculum evaluation, focused on evidenced-based judgement with a view to improving practice, will help ensure that the curriculum is accomplishing its purpose. Evidenced-based evaluation processes will help to measure what achievements have been made and to identify what needs more work. Table 9 identifies some of the key questions that evaluations should address, although this is by no means a complete list.

Table 9: Some essential questions for curriculum planning and evaluation

Area for review	Examples of questions
Curriculum planning	 Does the school's curriculum: deliver the most appropriate programme of study to support the school's mission and educational aims? deliver a balanced, coherent and consistent programme of learning with clear and smooth progression routes designed for the needs of learners? appropriately challenge all ability levels? recognise the language background of learners and provide them with the support they need to access the curriculum? provide sufficient opportunity for learner choice? provide pathways that enable learners to achieve the entrance or admission requirements for university, higher education courses and employment?
Quality assurance policies and practices	 Are your quality assurance policies and practices fit for purpose, clear in their intent and easily understood? How do you know that the school's quality assurance policies are being adhered to? What areas need additional quality assurance policies and practices?

Continued

Area for review	Examples of questions
Teacher evaluation Fulfilling Cambridge	 Are the stated aims of the curriculum being addressed within the teaching programme?
(and other qualification) subject	 Are teachers teaching to the syllabus correctly, covering all the prescribed content and skills?
requirements Effective delivery of	 Is there evidence that teachers are using a variety of appropriate teaching strategies and learning activities?
learning and meeting learner needs	 Are the assessment objectives and methodology for assessment being respected?
	 Are coursework components being correctly implemented and supported?
	 Is there evidence that teachers are using formative assessment appropriately to inform their teaching practice?
	 Is there evidence that teachers are differentiating their practice to the needs of individual learners?
	 Do learning activities provide opportunities for the development of the desired skills and learner attributes?
	How are the views of learners taken into account?
	 Is there a process of lesson observation with supportive feedback to effect improvements in teaching and learning?
	 Are lessons supported with sufficient resources, suitable for the level of study?
	 Do lessons include topics of national relevance by structuring and delivering content in local contexts?
Professional development	 Are all teachers engaging in suitable professional development activities to ensure successful implementation of the desired curriculum?
	 Is your professional development programme meeting the specific needs of teachers and the requirements of the strategic plan?
	 Is the balance between internal and external professional development opportunities appropriate?
	What evidence do you have that the professional
	development programme is positively influencing classroom practice or learner achievement?

Area for review	Examples of questions
Resources and facilities	 Are facilities and administrative resources appropriate to support teaching programmes? Do learners and teachers have access to appropriate library/media centre and IT resources? Are appropriate student welfare and learning support services provided? Do you have appropriate facilities for the security of examination material?
Formal examinations and qualifications	 Do you have an exams officer to manage the administration of any Cambridge exams you offer? Is there a process in place to make sure the exams officer carries out their duties in line with Cambridge requirements? Are the Cambridge (and national) examination requirements and procedures being strictly adhered to? Are the mechanisms for checking accuracy in, and completeness of, learner data sufficient? Are the policies regarding authenticity of learners' work being followed? Are the systems for entering, storing and exchanging learner records secure, with appropriate back-up and retrieval safeguards?
Communication and evaluation methodology	 How can you improve your evaluation procedures to get more meaningful or accurate information? How is this information shared or disseminated to other stakeholders? How can the school become more effective in making use of this information to refine and further develop the curriculum? Is there effective communication and exchange of information with external agencies, for example, Cambridge, other qualification organisations, ministries and other governmental agencies? Are learner and teacher schedules (timetables) and calendars of events accurate, clear and informative?

Many schools use recognised evaluation/accreditation frameworks to support the process of curriculum and whole-school evaluation. These will provide their own list of questions, processes and criteria. Often these are external, provided by national authorities or accreditation agencies. What is important is that they lead to school improvement and that the whole school community is involved in relevant evaluation and development activities so that everyone takes ownership of the process.

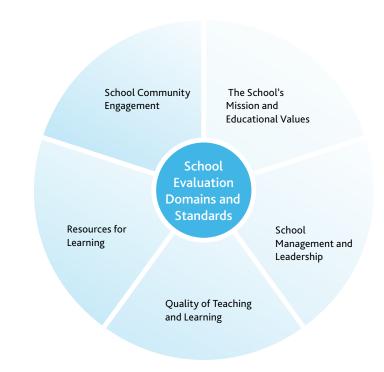
Larger scale school-wide evaluations are very time consuming. For this reason they are conducted only occasionally. It is important that smaller evaluation cycles are built into the regular operations of the school so that evaluation and development are seen as an ongoing process.

Cambridge offers a school self-evaluation service that can contribute powerful insights as part of a broader evaluation strategy. The Cambridge instrument investigates five domains [see figure 4]. These are centred on research-based indictors of effective schools including:

- · high academic standards and expectations
- a school climate that focuses on achievement
- instructional leadership
- high performing teachers
- students with a strong self-efficacy and confidence as learners
- parents with high aspirations and expectations
- learning resources that are fit for purpose
- excellent school governance that includes responsible financial management.

Cambridge offers a school self-evaluation service that can contribute powerful insights as part of a broader evaluation strategy.

Figure 4: Cambridge School Evaluation Domains



The self-evaluation process provides an opportunity for schools to engage with their three main stakeholders - students, teachers and parents. It allows them to collect data that will help them reflect on their performance, design improvement strategies and track progress over time. See more here.

4.3 Teacher recruitment and evaluation

As good teaching is such a powerful influence on student learning, nothing is more important than ensuring teaching is as consistently excellent as it can possibly be. Schools should recruit teachers who share the school's vision and, ideally, display the teacher/learner attributes. The best way to improve teaching

practice is to conduct well-designed teacher evaluation and professional development, while building a culture where it is valued and understood.

Teacher evaluation is a very important quality assurance process. Schools will operate different systems, often prescribed by national authorities. While the summative element of judgement or appraisal is important, the formative aspect is even more so. The most effective forms of evaluation allow teachers to self-reflect against elements of clearly-defined criteria. These criteria include the Cambridge Teacher Standards and the learner/teacher attributes, as well as performance criteria in terms of learner results and value added to student learning. Reflective practice, one of the key concepts in the learner/teacher attributes, is reinforced.

Many schools also involve learners in providing feedback to teachers, whether formally or informally. Learner evaluations of their classes, when they are carefully designed and non-threatening, are a powerful practice that provides valuable formative feedback to teachers.

Teacher evaluation needs to relate closely to the school's professional development programme. This ensures that professional development supports areas identified for development during the evaluation process.

Chapter 6 of the 'Developing your school with Cambridge' guide provides more information.

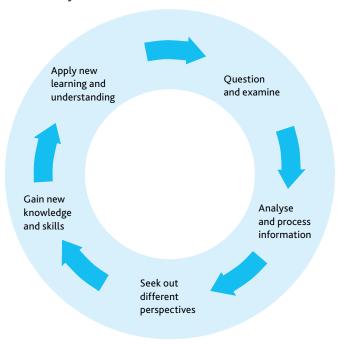
4.4 Professional development [PD]

Professional development (PD) includes a wide range of activities and practices that support ongoing and evidenced-based reflective practice (see Figure 5: The reflective cycle). This involves participants in:

- reflecting on current practice through the teacher evaluation process, which will identify PD priorities
- working with peers to share ideas and to observe, record and give feedback on classroom experiences
- reviewing relevant resources to introduce and become familiar with new concepts

- accessing recognised local or international educational expertise to enhance understanding
- planning, trialling, evaluating and modifying new practices and resources
- using collaborative support structures and processes, including peer critiquing and online services.

Figure 5: The reflective cycle



PD needs are likely to span the following areas:

- subject and resource support, including familiarisation with subject content, learning activities and skill acquisition and development
- enhancing understanding of pedagogic and assessment practices and their planning and integration into teaching programmes

- building professional capacity through collaboration with other teaching professionals in the school and through inter-school subject cluster groups or networking
- opportunities to upgrade professional qualifications, with the potential to become teacher-trainers or examiners, or to contribute in other ways that advance the introduction of the curriculum and the uptake of the associated new pedagogy and assessment methodology.

PD needs will be situational. Teachers new to the profession and/or to Cambridge programmes will need close support by experienced colleagues and to attend appropriately targeted training. Experienced teachers will want to improve their professional practice by completing advanced PD programmes, doing PD qualifications, and by becoming involved in professional communities of practice. These resources, courses and professional collaborations stimulate participants to reflect on their experience of working in a school environment and to evaluate their practice.

In this way, participants to reflect on their experience of working within a school environment through stimulus from resources, courses and professional collaboration. Reflective PD encourages individuals to develop action plans and experiment with new strategies. This experimentation gives them additional experiences on which they can reflect, and more opportunities for professional growth.

PD opportunities should not just be for teachers. The school leadership team and teaching support staff will also contribute to the successful implementation of the curriculum and will therefore benefit from relevant and constructive professional development.

For more information about our professional development services see chapter 5 in this guide and Chapter 7 of the 'Developing your school with Cambridge' guide.

4.5 Developing and implementing quality assurance policies and procedures

Policies and procedures should provide teachers and learners (and where appropriate, parents) with clear direction, guided by the school's mission and

aims. They need to be understood by the school community and enforced through quality assurance practices, including teacher evaluation. These resources, courses and professional collaborations stimulate participants to reflect on their experience of working in a school environment and to evaluate their practice.

In addition to the teacher evaluation policy, those that relate to the curriculum usually include:

Language policy: Every school will have its own language profile, so it is important that this is reflected in a policy that recognises the language needs of different groups of learners and teachers. It will consider the solution to questions including: How will English as a second language be supported? How will learners be encouraged to develop their first or best language? What responsibilities do teachers have to support language learning?

Assessment policy: How often are internal summative grading and reporting conducted? What are the grading procedures and how does this relate to the criterion system used by Cambridge and/or other qualifications taught in the school? How is assessment for learning supported? What can learners and parents expect from teachers in terms of reporting and detailed feedback on specific assignments and over specified lengths of time?

Homework policy: What are the expectations? How is this organised to ensure classroom learning is supported?

Special Educational Needs and Gifted and Talented policy: What are the expectations for teachers to differentiate so that all learners are appropriately challenged? How does the school support learners with specific needs?

Co-curricular expectations: What does the school provide for learners beyond regular classes? How does this fit in with teacher contracts and expectations? How does the school work with the local community to support learner participation in activities that it cannot provide itself, or are better provided outside the school?

Discipline policy: What is the code of conduct for teachers and the code of conduct for learners? How is the code of conduct supported and enforced?

What support does the school provide to learners who display discipline problems?

For further information see chapter 3 of the 'Developing your school with Cambridge' guide.

4.6 Managing change

Introducing Cambridge curricula for the first time will present challenges, particularly if teaching staff are not familiar with the programmes or do not have a background of relevant experience. The high value Cambridge places on teachers becoming creative professionals means that preparation is vital. In other words, we expect teachers to develop their own schemes of work and apply the syllabus to the needs of their learners in the context of the school. To a lesser extent, this is also true for experienced staff who will also need time to plan and refresh their lesson plans, recognising that every class of learners is unique.

Teachers new to Cambridge will be involved in:

- becoming familiar with subject requirements, including assessments, and planning how to satisfy those requirements
- writing or rewriting schemes of work and producing new teaching material
- accessing and evaluating subject resources, for example, textbooks, websites and workbooks
- planning and trialling teaching strategies and assessment practices.

Teachers should be supported so that they have enough time to prepare properly and have access to professional development. One option is to have a 'pre-implementation year', to give teachers the opportunity to review, prepare, practice and evaluate the new material and approaches before full implementation. The opportunity to trial units of work and practise assessment tasks will help to build teachers' confidence and develop a sense of purpose towards the new curriculum.

Mentoring and team teaching are excellent strategies to help manage curriculum change and development. Experienced teachers can support less experienced colleagues and can also lead professional development activities within the school. Team teaching allows teachers to share expertise, provide professional support and learn new skills. While the content in different academic disciplines is different, many of the teaching and assessment principles and practices are often similar, so inter-departmental collaboration can also be very productive. Finally, we recommend working with another school that has experience of Cambridge to support teachers during a time of change. This can be very useful in smaller schools where there may only be one subject teacher at each school level.

Teachers should be supported so that they have enough time to prepare properly and have access to professional development.

4.7 Involving the local community

It is very useful if parents understand the curriculum, and the choices that learners have to make at different stages. Parent information sessions with question and answer sessions can support school communications.

Parents should support the development of the Cambridge learner attributes at home. Schools can encourage this by using the school reporting process to map learners' progress against these broader attributes, explaining their significance. In the same way that it can be beneficial for staff evaluation to include self-reflection, learners will also benefit from an element of self-evaluation in reporting. Some schools require students to write their own self-evaluations as part of the reporting process. Other schools conduct parent / student conferences where the student leads the discussion. For an example of this see case study 9 on page 43 of the *learner attributes quide*.

To understand the wider world, learners must first develop a deep appreciation of their local context and culture. Participating in community activities can enrich the curriculum, but can also benefit learners by giving them insights into career options through links with local businesses. Becoming aware of post-school options can help learners choose the subjects they want to study, enabling them to be responsible for their next steps in learning. It can also increase motivation levels and encourage greater participation in classroom activities. Community service can support the development of the learner attributes and help nurture a sense of social responsibility.

4.8 Administering our assessments (exams officers)

The exams officer is the person appointed by the head of centre to act on behalf of the school, with specific responsibility for administering Cambridge exams. We provide detailed support and training for exams officers managing our assessment processes. For more information please see here.

4.9 Student admissions, progression through the school and guidance on to higher education.

Transparency is key in student admissions. The school's policies and selection criteria must be clearly published on the school website and in other relevant documentation. For instance, if potential students must pass an entry test, the requirements must be freely available for students and parents to understand.

Once a student has been accepted, it is important to provide the appropriate level of challenge at each stage of the students' education as described in chapter one and two. The choice of subjects at IGCSE/O Level can be vitally important. If a student decides they wish to study medicine but they did not take chemistry IGCSE, they would be unable to undertake A Level study in the subject and therefore unable to pursue their chosen pathway. It is recommended that students study English, mathematics, at least one science, at least one humanities and one language in IGCSE plus other subjects as appropriate for future career paths. For those wishing to pursue higher education in science, engineering and medicine, all three science subjects in IGCSE would provide good foundations.

At A Level, subject choice becomes even more important. In the UK, the Russell Group universities publish a guide called 'Informed Choices'. This guide gives a list of what they refer to as 'facilitating subjects' as well as guidance on some of the subjects considered less desirable. Mathematics is regarded highly by all subject disciplines. The sciences, history and English literature are all regarded as facilitating subjects. If you wish to study economics, most universities require A Level mathematics rather than A Level economics.

It is recommended that those staff who are involved in advising students on subject choice and on their university/college applications look at the information available on the Cambridge Assessment International Education website. The recognitions database provides a tool for students to search by country and qualification to see where their qualifications are accepted worldwide and if they are given credit in institutions in North America.

General guidance and resources are provided here.

Information on the entry requirements and admissions processes of top destination countries can be accessed here.

4:10 Understanding and measuring impact

Measuring impact is critical to evaluation, and thereby to developing practice and improving student learning. Without measuring impact, how will we know if curriculum revisions or new approaches to teaching and learning have made a difference to our learners' progress and attainment? This section looks at how leadership in schools can answer these questions by introducing the concept of effect size and focusing on three areas in particular:

- 1. Improvements in student progress and attainment.
- 2. Changes in teacher self-efficacy.
- 3. Impact on student self-efficacy.

Impact focus 1: Improvements in student progress and attainment

Measuring effect sizes is one way of helping school leaders and teachers understand the impact of changes they have introduced on student progress and

teacher and student self-efficacy. If teaching strategies or the curriculum are changed in some way, calculating effect sizes helps determine not just if learning and self-efficacy have improved, but by how much. Effect size is a useful way of quantifying or measuring the size of any difference between two groups or data sets helping school leaders and teachers understand the impact of any changes they have introduced and understand what has the maximum benefit for learners and teachers.

An effect size is found by calculating the standardised mean difference between two data sets or groups. In essence, this means we are looking for the difference between two averages, whilst taking into account the spread of values around those averages at the same time. Case study 6 below illustrates this through providing a worked example:

Case Study 6:

Using effect size to measure improvements in student progress following an intervention

Ultimately, as school leaders and teachers, we are interested in the impact of a specific educational intervention or change on student outcomes. We want to know how much progress our learners have made, as well as what they been able to attain or achieve.

Consider the following scenario:

Over the course of a term, a teacher has worked hard with her learners on understanding 'what success looks like' for any given task or activity. She has stressed the importance of everyone being clear about the criteria for success, before learners embark upon the chosen task and plan their way through it. She has even got to the point where learners have been co-authors of the assessment rubrics used, so that they have been fully engaged in the intended outcomes throughout and can articulate what is required before they have even started. The teacher is happy with developments so far, but has it made a difference to student progress? Has learning increased beyond what we would normally expect for an average student over a term anyway?

Case Study 6 continued

Here is an extract from the teacher's mark-book:

Student	Sept Task	Nov Task
Katya	13	15
Maria	15	20
Joao	17	23
David	20	18
Mushtaq	23	25
Caio	25	38
Cristina	28	42
Tom	30	35
Hema	32	37
Jennifer	35	40

Before we start analysing this data, we must note the following:

- The task given in September was at the start of the term the task in November was towards the end of the term.
- Both tasks assessed similar skills, knowledge and understandings in the student. The November task needs to be as close as possible to the September task in assessing the same construct.
- The maximum mark for each was 50.
- The only variable that has changed over the course of the term is the approach to teaching and learning by the teacher. All other things are equal.

With that in mind, looking at the extract above, what conclusions might you draw as an external observer?

Case Study 6 continued

You might be thinking something along the lines of:

"Mushtaq and Katya have made some progress, but not very much... Caio and Cristina appear to have done particularly well... David, on the other hand, appears to be going backwards!"

What can you say about the class as a whole?

Calculating effect sizes:

What if we were to apply the concept of 'effect sizes' to the class results above, so that we could make some more definitive statements about the impact of the interventions over the given time period? Remember, we are doing so in order to understand the size of the effect on student progress.

Let's start by understanding how it is calculated. An effect size is found by calculating the standardised mean difference between two data sets or groups. In essence, this means we are looking for the difference between two averages, whilst taking into account the spread of values (in this case, marks) around those averages at the same time.

As a formula, and from our scenario above, it looks like the following:

Effect Size = Average class mark after intervention – Average class mark (before intervention) Spread standard deviation of the class

In words: the average mark achieved by the class before the teacher introduced her intervention strategies is taken away from the average mark achieved by the class after the intervention strategies. This is then divided by the standard deviation of the class as a whole. The standard deviation is merely a way of expressing by how much the members of a group (in this case, student marks in the class) differ from the average value (or mark) for the group.

Case Study 6 continued

Inserting our data into a spreadsheet helps us calculate the effect size as follows:

	Α	В	С
1	Student	September Task	November Task
2	Katya	13	15
3	Maria	15	20
4	Joao	17	23
5	David	20	18
6	Mushtaq	23	25
7	Caio	25	38
8	Cristina	28	42
9	Tom	30	35
10	Hema	32	37
11	Jennifer	35	40
12			
13	Average mark	23.8 = AVERAGE (B2:B11)	29.3 = AVERAGE(C2:C11)
14	Standard deviation	7.5 =STDEV(B2:B11)	10.11 =STDEV(C2:C11)
15			
16			Standard deviation overall 8.8 = AVERAGE(B14:C14)

Therefore, the effect size for this class = (29.3-23.8)/8.8 = 0.62But what does this mean?

Case Study 6 continued

Interpreting effect sizes to understand impact

In pure statistical terms, a 0.62 effect size means that the average student mark, after the intervention by the teacher, is 0.62 standard deviations above the average student mark before the intervention.

We can state this in another way: the post-intervention average mark now exceeds 61% of the student marks previously.

Going further, we can also say that the average student mark, post intervention, would have placed a student in the top 4 in the class previously. You can see this visually in the table above where 29.3 (the class average after the teacher's interventions) would have been between Cristina's and Tom's marks in the September task.

We know from results' analyses of the Program for International Student Assessment (PISA) and the Trends in International Mathematics and Science Study (TIMMS) that, across the world, a year's schooling on average leads to an effect size of 0.4. John Hattie and his team at The University of Melbourne reached similar conclusions when looking at over 900 meta-analyses of classroom and whole-school interventions to improve student learning – 240 million learners later, the result was an effect size of 0.4 on average for all these strategies. What this means, then, is that any teacher achieving an effect size of greater than 0.4 is doing better than expected (than the average) over the course of a year. From the example given in case study 6, not only are the learners making better than expected progress, they are also doing so in just one term.

Impact focus 2: teacher self-efficacy

Teacher self-efficacy is a term we use to refer to a teacher's level of confidence in their ability to guide learners to success. It captures the idea that, both individually and collectively, teachers believe they can have a highly positive effect on student learning and attainment, regardless of a student's socioeconomic background and the level of motivation s/he brings to the learning environment.

This level of confidence can be found by asking teachers to self-report against questions (or items), such as:

- 1. How much, in your current practice, do you feel you can gauge/measure student understanding of what you have taught?
- 2. To what extent, in your current practice, do you feel you can use a variety of assessment strategies?
- 3. How well, in your current practice, do you feel you can implement a variety of active learning strategies?
- 4. How much, in your current practice, do you feel you can motivate learners who show little or no interest in school work?

A teacher's responses to such questions, before an intervention or change is put in place, can then be compared with their responses afterwards. Allocating a numerical code to the response options, e.g. 0 = No influence; 1 = Some influence; 2 = A lot of influence, etc, enables statistical analysis and the calculation of effect sizes (see above). An exemplar questionnaire, for adaptation by the school, can be found in the appendices.

Impact focus 3: student self-efficacy

Linked closely to the above is the idea of student self-efficacy, which refers to a learner's level of confidence about their ability to be successful within a given context (task, subject, etc) – both now and in the future. Learners with strong self-efficacy are more likely to challenge themselves when faced with difficult situations or tasks and be intrinsically motivated. They willingly exert a high degree of effort in order to be successful, and see failure as a learning opportunity or something that is within their control. Such learners tend also to recover quickly from setbacks, and, ultimately, are likely to achieve their personal goals. One of the main reasons Cambridge developed the learner attributes was to support the development of student self-efficacy.



The level of a student's sense of efficacy can be found by asking them to self-report against questions/descriptors/items, such as the following:

- 1. I can succeed at anything if I try hard enough.
- 2. If I practised every day, I could develop any skill.
- 3. Once I have decided to accomplish something that is important to me, I keep trying, even if it is harder than I originally thought.
- 4. When I am struggling and taking longer to complete something difficult, I focus on my learning and change my approach, instead of feeling discouraged.
- 5. I believe that the brain can be developed, just like a muscle.
- **6**. I think that, no matter who you are, you can significantly improve your level of capability.

Once more, a student's responses to such questions, before an intervention or change is put in place, can then be compared with their responses afterwards. Allocating a numerical code to the response options, e.g. $0 = Not \ like \ me \ at \ all;$ $1 = A \ little \ like \ me;$ $2 = Like \ me;$ $3 = A \ lot \ like \ me$, etc, thereby enables statistical analysis and the calculation of effect sizes (see above).

An exemplar questionnaire, for adaptation by the school, can be found in the appendices.

Considerations on measuring impact

In reality, measuring and using effect sizes is not a perfect tool as the assumptions made about similar tasks and identifying only one variable as changing are not fully achievable. That said, calculating effect size provides one set of data to measure impact and needs to be part of a broader discussion and analysis.

Much of this analysis will be qualitative, trying to understand why some students have done better than others and trying to make sense of patterns in the data. School leaders and teachers must look at the data carefully and intelligently in order to understand 'why'. Why did some learners do better than others? Why did some not make any progress at all? In what areas has student attainment or self-efficacy improved, stayed the same or got worse? Its most important function is to support collaborative work and discussion around student learning and progress, helping departments and teachers to work out a common language, high expectations and a clear focus around improving student outcomes.

John Hattie's work (2010 and 2012, see annotated bibliography) provides insightful guidance to schools about what they should prioritise based on effect sizes from international research. Another valuable study is by the Education Endowment Foundation / Sutton Trust (see annotated bibliography).

This chapter highlights the range of support services and resources we offer to schools that are implementing Cambridge programmes. It gives an overview of the different types of support available and points to where to find more detailed information. The chapter also sets out the next steps for schools planning to introduce Cambridge or to expand their Cambridge offer.

We offer a range of support materials and services for teachers. These are aimed both at helping them effectively deliver our programmes and at meeting their professional development needs. All teachers can access this support, regardless of whether their school curriculum is wholly or partially based on Cambridge programmes.

For Upper Secondary and Advanced programmes, all our support can be accessed through the School Support Hub: www.cambridgeinternational.org/support

For our Primary programme, all our support can be accessed via the Primary support site: https://primary.cambridgeinternational.org

And for our Lower Secondary programme, all our support can be accessed via the Lower Secondary support site:

https://lowersecondary.cambridgeinternational.org

There are four major areas of support:

- 1. curriculum materials and resources
- 2. professional development
- 3. school improvement services and consultancy
- 4. help with expanding a school's Cambridge offer or becoming a Cambridge school.

5.1 Curriculum materials and resources

Our new School Support Hub for Cambridge Upper Secondary and Advanced programmes has now replaced the Teacher Support site, making it easier for teachers to find and download the assessment and teaching support materials

that they need to deliver Cambridge programmes. We provide a wide range of resources to support teaching and learning, including schemes of work, past papers, mark schemes, example candidate responses and examiner reports.

All registered Cambridge schools teaching our Cambridge Upper Secondary and Cambridge Advanced stages should make use of the School Support Hub regularly to find the resources they need.

The School Support Hub includes online teacher forums, which are a great way to keep up to date with the global Cambridge community. Cambridge teachers can use them to ask questions about their syllabus and get help and ideas from other teachers and subject experts.

Teachers can also use the 'Community Resources' area to upload their own resources to share with other Cambridge teachers, or download materials that others have uploaded to use in lessons.

www.cambridgeinternational.org/support

Assessment tools for Primary and Lower Secondary.

We provide dedicated online support to schools registered to offer Cambridge Primary and Cambridge Lower Secondary. For Primary and Lower Secondary programmes, Progression Tests are end-of-stage tests available for English, English as a Second Language, Mathematics and Science. They are designed to measure learners' progress and identify their strengths and weaknesses. For the Lower Secondary programme you can choose between paper-based and on-screen versions, depending on which is most suitable for your learners and your school.

http://www.cambridgeinternational.org/programmes-and-qualifications/cambridge-primary/cambridge-primary/assessment/

http://www.cambridgeinternational.org/programmes-and-qualifications/cambridge-secondary-1/cambridge-secondary-1/assessment/

Curriculum Support

Schemes of work are medium-term course plans that are available for many of our subjects. They provide suggested teaching sequences and activities for the classroom. We have designed our schemes of work to be as flexible as possible and teachers choose which approach to take.

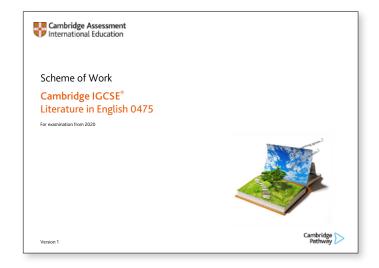
Teacher guides - some subjects have teacher guides which provide extra guidance to help teachers plan their lessons effectively, taking into account the language needs of learners. There are also suggestions to help prepare Upper Secondary and Advanced learners for their final assessment.

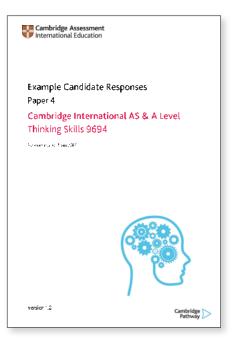
Learner guides are for teachers to share with Upper Secondary and Advanced learners to help them plan their revision programme and better understand what to expect in the examinations.

Resource Plus

Resource Plus is a collection of additional teaching and learning resources designed to help Cambridge teachers deliver challenging concepts and skills in some of our most popular syllabuses. Resource Plus materials have been created by subject experts to give you the confidence to teach new syllabus content, deliver engaging lessons, and clearly explain concepts that can be difficult for learners to understand. Some resources provide teaching support for the syllabus as a whole, while others cover individual areas in depth. More information can be found at: www.cambridgeinternational.org/resourceplus

For our Upper Secondary and Advanced qualifications there are also example candidate responses. These booklets use examples of candidates' work to show how different levels of performance (high, middle, low) relate to the subject's curriculum and assessment objectives. Each answer is annotated with examiner comments on the awarded mark and any mistakes the candidate has made. The examiner explains how the candidate could have improved their answer, and lists common mistakes made in this question across all candidates who sat the





exam. They help teachers to understand the standard required to achieve marks, beyond the guidance of the mark scheme.

Endorsed resources

In addition to the resources produced by Cambridge International, we also endorse resources from a range of publishers. Endorsed resources go through a rigorous quality-assurance process to make sure they closely reflect the curriculum framework or syllabus and are appropriate for Cambridge schools worldwide. Resources may be 'endorsed for full syllabus coverage' or endorsed to cover specific sections, topics or approaches.

http://www.cambridgeinternational.org/support-and-training-for-schools/endorsed-resources/

Exam preparation materials

Past question papers: We publish past papers for each subject. These give learners the opportunity to practice at answering different types of question.

Examiner reports: Our principal examiners write detailed reports describing learners' overall performance on each part of the question. The reports give insight into common misconceptions shown by learners, which teachers can address in lessons.

Grade thresholds: These show the minimum number of marks learners needed to achieve in order to be awarded a particular grade.

Mark schemes: These help teachers understand how marks are awarded for each question and what examiners look for when they mark.

Coming soon: Test Maker - a new online service allowing teachers to compile customised test papers using a large bank of past exam questions

For more information go to www.cambridgeinternational.org/support see also: • https://vimeo.com/259843531

5.2 Professional development

The overarching aim of Cambridge professional development is to work with schools to transform classroom practice in order to improve student outcomes.

We offer a coherent framework of training and professional development for teachers in Cambridge schools, designed to meet the needs of teachers who have different levels of experience. The support we offer for teachers includes courses and resources aimed at developing the knowledge and skills teachers need to deliver specific programmes and qualifications, and others that are more general, aimed at developing teaching strategies, skills and reflective practice.

We offer courses, seminars and conferences, face-to-face and online training events and webinars. Our online courses are delivered via our virtual learning environment and help teachers to build links and exchange ideas with other Cambridge schools internationally.

Teaching Cambridge programmes and qualifications

We offer three levels of programme-specific and qualification-specific professional development, which we are continually developing and expanding:

Introductory level

Introductory Training is for teachers who are new to Cambridge programmes and qualifications. It introduces teachers to Cambridge programmes, syllabuses and curriculum frameworks and enables them to teach our syllabuses with greater confidence. We strongly recommend this training to teachers who are new to Cambridge or new to a specific qualification.

Teachers will typically learn about:

- · Cambridge Assessment International Education
- the aims and structure of Cambridge programmes, syllabuses and curriculum frameworks
- · assessment aims and objectives
- question papers, marking exercises and examiner feedback (only applicable for Cambridge Upper Secondary and Cambridge Advanced qualification training)

- Progression Tests, Cambridge Primary Checkpoint and Cambridge Lower Secondary Checkpoint tests
- teaching ideas and approaches, endorsed resources that are available to support teaching.

This training is available face-to-face and online. All of our online training can be accessed on our Professional Development Learning Community website.

Extension level

Extension Training is for teachers who have some experience of teaching Cambridge programmes and qualifications. The training in this area enables teachers to engage with our syllabuses and curriculum frameworks in greater depth and build confidence in their delivery. We recommend this training to teachers who have attended Introductory Training and/or have been teaching Cambridge programmes and qualifications for at least one year or one exam cycle.

Teachers will:

- review syllabus and curriculum framework design and the assessment aims
- learn about any major updates to our syllabuses or curriculum frameworks
- extend their understanding of the assessment process through reviewing past question papers, marking exercises, examiner feedback as well as developing practice questions for Cambridge O Level, Cambridge IGCSE, Cambridge International AS & A Level and Cambridge Pre-U
- explore Progression Tests, Cambridge Primary Checkpoint and Cambridge Lower Secondary Checkpoint
- · create schemes of work and curriculum resources
- · share a range of approaches to teaching and learning.

Enrichment level

Enrichment Professional Development is for teachers and school leaders who have been teaching or implementing Cambridge programmes and qualifications for at least a year and would like to develop their practice in specific areas. This

level of our training encourages teachers to reflect on, and take greater responsibility for their teaching, as well as become more innovative in their classroom practice.

There are three different strands to our offer at this level. Teachers and school leaders can choose to focus on:

- skills, concepts or ideas (subject based)
- skills, concepts or ideas (not subject-based)
- a particular aspect of a syllabus or curriculum framework.

This training is available face-to-face, online or a blend of both.

Examples of Enrichment Professional Development include Active Learning and Assessment for Learning, The Inclusive Classroom, and Developing your Leadership with Cambridge.

For a list of forthcoming courses, as well as details of how to enrol, go to: http://www.cambridgeinternational.org/cambridge-professional-development/events-and-training-calendar/

Cambridge Professional Development Qualifications

Cambridge Professional Development Qualifications (Cambridge PDQs) transform professional learning for practising teachers and leaders. They provide formal recognition and reward for a school's commitment to establishing a culture of ongoing teacher and school leader development.

Specifically, Cambridge PDQs:

- meet the needs and priorities of the individual and the school
- scaffold school-based professional development
- enhance professional thinking and practice to improve the quality of learning
- provide international benchmarks for professional learning, leading to valuable certification and progression
- energise professional learning communities.

For full details of our Professional Development Qualifications, go to: www.cambridgeinternational.org/pdq

5.3 School improvement services

School Self-Evaluation

Effective schools successfully progress the learning and development of all of their students, regardless of background, beyond their normal expected rate of growth. To support the progress of their students, many schools regularly review their performance to identify ways in which they can become more effective.

As part of this review process, schools often base their evaluations on evidence from practice. This means that any decisions about how to improve school performance are informed by data.

We have developed a range of surveys that form the basis of a school self-review. Schools can use these to collect feedback from the school's key stakeholder groups: parents, students and teachers. Each of the surveys is based around a set of standards for School Self-Evaluation, which have been developed by Cambridge International and tailored specifically for Cambridge schools. The standards are grouped into five key areas, or domains. Each domain contains a set of standards which help to define the features of an effective school.

Once the school has conducted the surveys, Cambridge will produce a report on the results that combines and compares responses from parents, students and teachers. We will then schedule a video conference or face-to-face meeting with the school leadership team. This meeting is an opportunity to discuss the report's findings, decide on any areas for further analysis, and identify the next steps in the school improvement process. For full details visit: www.cambridgeinternational.org/support-and-training-for-schools/school-improvement/

School consultancy

We can provide local support and guidance for teachers and school leaders involved in implementing the Cambridge curriculum. By working closely together, we are able to respond to specific needs and provide a more

personalised experience. We can also help identify solutions or processes to address any specific problems or challenges. For longer term support, we can work together to develop and implement a more formalised programme. Specific areas might include:

- school improvement planning
- · improving the quality of teaching and learning
- teacher appraisal and development
- · student assessment and tracking
- · resourcing the school
- · mobilising the school community.

To talk to Cambridge International about further support, please email: info@cambridgeinternational.org with 'Local support request' in the email subject line.

For more information, see: www.cambridgeinternational.org/school-improvement

5:4 Expanding the Cambridge offer or becoming a Cambridge school

For Cambridge schools interested in taking on additional Cambridge qualifications and programmes,, please contact us at: info@cambridgeinternational.org

To find out more about how to become a Cambridge school, please refer to the registration process here:

www.cambridgeinternational.org/i-want-to/join-cambridge/

References

Griffin, P., McGaw, B. and Care, E. (Eds.). (2012).

Assessment and Teaching of 21st Century Skills. London, UK: Springer.
See also www.atc21s.org
Schleicher, A. (2011). The case for 21st century learning.

OECD Education Directorate. Accessed 11th November 2012. www.oecd.org/general/thecasefor21st-centurylearning.htm

Robinson, V. [2007]

The impact of leadership on student outcomes: Making sense of the evidence. Australian Council for Educational Research. ACER Conference archive.

Accessed on 6th June 2018 at:

https://research.acer.edu.au/cgi/viewcontent.cgi?referer=&httpsredir=1&article=1006 &context=research_conference_2007

Robinson, V. [2011] Student centered leadership. Jossey – Bass USA.

Vygotsky, L. S. (1978).

Mind in society: The development of higher psychological processes.

Cambridge, MA: Harvard University Press. USA.

References specific to Leadership, curriculum evaluation and building school capacity.

The measuring impact session has drawn extensively on the influential work of the academics John Hattie and Robert Coe. The following resources can be used to develop understanding further:

Hattie, J. (2012).

Visible Learning for Teachers – Maximising Impact on Learning. Routledge. London and New York.

Coe, R. (2002).

It's the Effect Size, Stupid. What effect size is and why it is important. Paper presented at the Annual Conference of The British Educational Research Association, University of Exeter, England, 12-14 September, 2002. A version of the paper is available online: http://www.leeds.ac.uk/educol/documents/00002182.htm

The Centre for Evaluation and Monitoring, University of Durham, has produced a very useful effect size calculator: http://www.cem.org/effect-size-calculator. Note that it also calculates a confidence interval for any effect size generated. Confidence intervals are useful in helping you understand the margin for error of an effect size you are reporting for your class. These are particularly important when the sample size is small, which will inevitably be the case for most classroom teachers.

For a further explanation of the concept of 'standard deviation' and its use in statistical analysis: https://en.wikipedia.org/wiki/Standard_deviation

Rachel J. Eells (2011)

Meta-analysis of the relationship between collective teacher efficacy and student achievement. A dissertation submitted to the faculty of the graduate school, in candidacy for the degree of Doctor of Philosophy, Program in Educational Psychology, Loyola University Chicago, Chicago, il. August 2011. Online version can be found here: https://pdfs.semanticscholar.org/6167/a32cba0f727d72b071df00f8fc2d8b6d8673.pdf

Elements of this chapter can also be found in the *Approaches to Learning and Teaching* series of books published by Cambridge University Press, working with Cambridge Assessment International Education (2017-18):

http://www.cambridge.org/us/education/subject/teaching-practice-and-professional-development/approaches-learning-and-teaching

This guide has presented an overview of the issues and questions that you will need to consider in developing your curriculum. In this section we identify a few texts and other resources and links for schools interested in exploring ideas further. We recommend these because they are relevant, research-based and obtainable. They would make a good initial collection for a staff room resource centre easily accessible to all teachers. They are good starting points, from which you can follow your particular interests, but represent only a few of the wide range available. We encourage schools to share any literature and resource material they have found useful through the teacher support community. We have divided texts and resources into sub sections but most cross over boundaries and are relevant to more than one category.

Curriculum planning and Teaching

Approaches to Learning and Teaching series [2017 / 2018]. Various Authors. Cambridge University Press This series of books have been written in collaboration with Cambridge Assessment International Examinations. Each book focuses on a different subject and gives examples of effective teaching approaches translating theory into practice. See: http://www.cambridge.org/gb/education/subject/teaching-practice-and-professional-development/approaches-learning-and-teaching

English, F. (2010).

Deciding what to teach and test: Developing, aligning and auditing the curriculum.

3rd Ed. Thousand Oaks, CA: Corwin Press.

Addresses the fundamentals of curriculum design in the context of a standards-based environment, with guidance and useful tools, e.g. for curriculum mapping from a United States perspective.

Flinders, D. and Thornton, S. (2009). *The Curriculum Studies Reader.*3rd Ed. Abingdon: Routledge.

A comprehensive survey of historical and contemporary keynote writing on the curriculum, balanced with concrete examples of innovative curriculum and an examination of contemporary topics, e.g. globalisation.

Kelly, A. V. (2009).

The Curriculum: Theory and Practice.

6th Ed. London: SAGE.

Summarises and explains the main aspects of curriculum theory aimed at experienced readers, and shows how these can and should be translated into practice, in order to create an educational and democratic curriculum for all schools at all levels.

Law, E. and Nieveen, N. (Eds.) (2010). Schools as curriculum agencies: Asian and European perspectives on school-based curriculum development.
Rotterdam: Sense.

Contemporary concepts of school-based curriculum development and case studies of practice in a range

of Asian and European nations, exploring commonalities and differences.

McCormick, R. and Paechter, C. (Eds.) (1999). Learning and Knowledge.

London: SAGE.

Learning as knowledge construction and the implications of this for the nature of knowledge and for the way it is acquired, e.g. learning within domains and different subject perspectives.

Marsh, C. J. (2009).

Key Concepts for Understanding Curriculum. 4th Ed. Abingdon: Routledge.

An evaluation of major international curriculum concepts and practices including planning, development and management, teaching perspectives, collaborative design and involvement, and ideology.

Myatt, M. (2018)

The Curriculum: Gallimaufry to coherence.

Melton: John Catt Educational Ltd.

An informative, straightforward and concise book whose argument is clear; a proper and demanding curriculum is the entitlement of every child and this book explores how educators can make this a reality. Covering a large amount of information on the curriculum, from cognitive science to individual subject commentaries, this book weaves theory and day-to-day practice together. Anyone involved in curriculum planning would find this a useful resource.

Priestly, M. and Biesta, G. (2014)

Reinventing the Curriculum. New Trends in Curriculum Policy and Practice.

Bloomsbury Academic.

Divided into two halves the first half of this book focuses on Scotland's Curriculum for Excellence (CfE) with contributions from authors discussing and commenting on its defining aspects of developing responsible citizens, effective contributors, confident individuals and successful learners. In the second half of the book the CfE is placed within an international context to highlight recent trends in curriculum policy. Despite a focus on English speaking countries, this book offers all readers useful ways of thinking critically about the direction and tensions of curriculum policy.

Turner, S. (2016)

Secondary Curriculum and Assessment Design. Bloomsbury Education.

Written from a UK perspective and drawing on ideas from current UK educationalists, this book offers a step by step approach to designing a curriculum and assessment model at both a whole school and subject level. Reflective questions throughout the chapters aim to consolidate the thinking of the reader regarding areas such as the purpose of a curriculum, its key principles and which key researchers the reader aligns themselves most closely with.

Implementing the curriculum with Cambridge: A guide for school leaders

Westbury, I. and Milburn, G. (2007).

Rethinking Schooling.

Abingdon: Routledge.

A critical selection of seminal articles from the Journal of Curriculum Studies by international experts. Themes include classrooms and teaching, pedagogy, science and history education, school and curriculum development, and students' lives in schools.

Wiggins, G. and McTighe, J. (2005). *Understanding by Design*. 2nd Ed. Alexandria, VA: ASCD.

A backwards design process in which the curriculum planner starts by identifying clear learning outcomes and relevant facets of understanding, and makes explicit the essential questions to be explored.

Young, M., and Lambert, D. (2014) Knowledge and the Future School. New York: Bloomsbury Academic.

This book introduces important arguments about the role of knowledge, the work of schools and what a good education involves. It offers a way of thinking for anyone developing a curriculum and places 'powerful knowledge' as an underlying curriculum principle.

Effective schooling

Brighouse, T. and Woods, D. (1999). How to improve your school.

Abingdon: Routledge.

Focuses on how ideas and intentions can be turned into direct actions that will help a school improve its

performance and effectiveness, looking at effective schools and how they have achieved their goals, leadership within schools, teaching and learning effectively, making critical interventions to secure improvement and how schools involve others to support improvement.

Brighouse, T. and Woods, D. (2008). What makes a good school now? London: Continuum.

Draws upon extensive work on school improvement over the last 15 years, and is set in the real context of the many changes and new agendas that are a feature of schools today.

Brown, C. and Poortman, C. (2018)

Networks for Learning. Effective Collaboration for teacher, School and System Improvement.

Abingdon: Routledge

This book explores the nature and impact of Professional Learning Networks (PLNs) evaluating different case studies from the Netherlands, Sweden, UK, Canada, Australia and New Zealand, each case study with a different focus such as research networks to child support teams. Each chapter is dedicated to a case study and designed to get the reader reflecting upon how they would engage with and use networks to enhance and sustain school improvement.

Crossley, D. (2013)

Sustainable School Transformation. An Inside-Out School Led Approach.

London: Bloomsbury

Argues change comes for within the school itself. This book draws on numerous international case studies from Finland, Canada, Australia, USA and UK to highlight good practice for sustained improvement as well as lessons learnt. Themes discussed include use of data to inform, approaches to accountability and the importance of community.

Coe, R., Aloisi, C., Higgins, S., and Major, L. (2014). What makes great teaching? Available online at: https://www.suttontrust.com/wp-content/uploads/2014/10/What-Makes-Great-Teaching-REPORT.pdf

Review of findings from over 200 evidence-based articles.

Hattie, J. (2009).

Visible learning: A Synthesis of over 800 Meta-Analyses Relating To Achievement.

Oxford: Routledge.

Hattie and colleagues have researched the most powerful influences on achievement in schools. This books presents a synthesis of over 800 meta-analyses and is one of the largest collections of evidence about what works in schools to improve learning. See also Hattie, J. (2012). Visible learning for teachers. London: Routledge. See also Hattie, J. (2015) Visible Learning into Action: International Case Studies of Impact.

Knight, O. and Benson, D. (2014)

Creating Outstanding Classrooms. A whole-school approach.

Abingdon: Routledge

A self-titled 'training manual' the focus of this handbook is to develop excellent teaching and learning through teaching for understanding and being acutely aware of the learner experience. Topics range from curriculum planning, language progression and assessment models; case studies help to link the theory to practice.

MacBeath, J. and Mortimore, P. (Ed.) (2004). *Improving School Effectiveness*. Buckingham: Open University Press.

Reviews findings from seminal international work to analyse school effectiveness, its measurement, and impact for teachers, parents and pupils.

Measures of Effective Teaching project (MET) www.metproject.org/reports.php

A number of resources are available on the website, primarily focused on measuring teaching effectiveness. Research base entirely in the USA.

Mercer, N. and Hodgkinson, S. (Ed.) (2010). *Exploring Talk in School*. London: SAGE.

Classroom talk is essential for guiding the development of understanding and for learners to understand their teachers and their peers in constructing knowledge. This book considers the practical steps teachers can take to develop effective classroom interaction, looking at: classroom

communication and managing social relations; talk in science classrooms; using critical conversations in studying literature; exploratory talk and thinking skills; talking to learn and learning to talk in the mathematics classroom; the 'emerging pedagogy' of the spoken word.

Rose, R. (Ed) (2010)

Confronting Obstacles to Inclusion. International responses to developing inclusive education.

Abingdon: Routledge

This book opens up an international dialogue on the challenges of, and approaches to, developing an inclusive education. Each author puts forward their own views, which deliberately introduces varying perspectives and interpretations of inclusion.

Rudduck, J. and Flutter, J. (2004). How to Improve Your School. London: Continuum.

Focuses on those who are most affected by changes in education policy and systems – the learners. Based upon and distilling empirical evidence from a number of research projects, this is an account of contemporary schooling from the learners' perspective. The research indicates that we need to see pupils differently, to re-assess their capabilities and reflect on what they are capable of being and doing.

Bilingualism and learning

Baker, C. (2011).

Foundations of Bilingual Education and Bilingualism. 5th Ed.

Bristol: Multilingual Matters.

A comprehensive introduction to bilingualism and bilingual education, covering all the crucial issues in bilingualism at individual, group and national levels. The 6th edition (2017) updates on technological advances, issues of assessment, identity and bilingualism. There are updated international examples of policy, research and practice.

Chadwick, T. (2012).

Language Awareness in Teaching: A Toolkit for Content and Language Teachers. Cambridge: Cambridge International Examinations and Cambridge University Press.

Aimed primarily at those who teach learners for whom English is not their first language, this Toolkit helps teachers to develop language awareness and support through classroom approaches and coordination with other teachers.

Coyle, D., Hood, P. and Marsh, D. (2010).

CLIL: Content and Language Integrated Learning.

Cambridge: Cambridge University Press.

This is a comprehensive overview of CLIL, from theory to practice, for both language and contentsubject teachers, providing guidance on the development of learning activities and materials, teaching approaches, assessment and evaluation. Cummins, J. and Early, M. (2011).

Identity Texts: The Collaborative Creation of Power in Multilingual Schools.

Stoke on Trent: Trentham Books.

Identity texts describes a variety of creative work by children, led by classroom teachers: collaborative inquiry, literary narratives, dramatic and multimodal performances. This book shows how identity texts have proved to be an effective and inspirational way of engaging learners in multilingual schools around the world.

García, O. (2009).

Bilingual Education in the 21st Century: A Global Perspective.

Oxford: Wiley-Blackwell.

Provides an overview of bilingual education theories and practices throughout the world, and extends traditional conceptions of bilingualism and bilingual education to include global and local concerns in the 21st century. García questions assumptions regarding language, bilingualism and bilingual education, and proposes a new theoretical framework and alternative views of teaching and assessment practices.

Mehisto, P. (2012).

Excellence in Bilingual Education: A Guide for School Principals.

Cambridge: Cambridge International Examinations and Cambridge University Press.

The first guide available to focus on the development and organisation of a bilingual education programme from the perspective of the school leader, providing international perspectives on planning and partners, leadership, learners, teachers and parents. This is a practical guide to support implementation, and evaluation and improvement of practice.

Mehisto, P. and Genesee, F. (2015).

Building Bilingual Education Systems: Forces,
Mechanisms and Counterweights.

Cambridge: Cambridge University Press.

In order to provide practical knowledge that is crucial to creating and implementing successful bi/trilingual education systems this book draws on case studies and the lessons learnt from them, practical tools and practitioner stories.

Mehisto, P., Marsh, D. and Frigols, M.-J. (2008). Uncovering CLIL: Content and Language Integrated Learning in Bilingual and Multilingual Education. Oxford: Macmillan.

This handbook gives many practical insights into CLIL, at each stage in the cycle of reflective practice, helping teachers to know why and how to facilitate CLIL.

School Leadership

Harris, J., Carrington, S. and Ainscow, M. (2018) *Promoting Equity in Schools. Collaboration, Inquiry and Ethical Leadership.*

Abingdon: Routledge

Set against a backdrop of high stakes testing, competition between schools, parental choice and school autonomy in Australia, the agenda of this book is to find ways of promoting equity in schools to break the link between disadvantage and

educational failure and the implications this has for ethical leadership. The collaborative enquiry builds on international research, shares findings from student voice, use of school data, and examines factors that act as barriers to equity.

Fullan, M. (2007).

Leading in a Culture of Change.

San Francisco: Jossey-Bass.

How leaders in all types of organisations can accomplish their goals and become exceptional leaders. Draws on the most current ideas about and theories of effective leadership, with case examples of change, and analyses five core competencies for successful leadership of complex change: attending to a broader moral purpose; keeping on top of the change process; cultivating relationships; sharing knowledge, and setting a vision and context for creating coherence in organisations.

Macbeath, J. and Cheng, Y. C. (Eds.) (2008). Leadership for Learning: International Perspectives. Rotterdam: Sense Publishers.

Considers the impact of globalisation on school leadership and the importance of distributed leadership making schools into learning organisations. Examples are taken from 12 countries in different parts of the world.

MacBeath, J. and Dempster, N. (2009). Connecting Leadership and Learning: Principles for Practice.

Abingdon: Routledge.

Five key principles for practice, tested by teachers,

school leaders and learners, across cultural and language boundaries, are explored in school and classroom practice: a focus of learning; an environment for learning; a learning dialogue; shared leadership; internal and external accountability.

Robinson, V. [2011]

Student centered leadership.

Jossey – Bass USA.

Focuses on leadership that improves student outcomes.

Wiliam, D. (2016)

Leadership for Teacher Learning

Florida: Learning Sciences International

Includes a critique of methods of meta-analysis,
explanation of the file-drawer problem and logic
models.

Wise, C., Bradshaw, P. and Cartwright, M. (Eds.) (2013).

Leading Professional Practice in Education.

Focuses on leading learning and learner leadership, change processes and distributed leadership, and leading professional development, exploring the application of theory in authentic practice in a range of school contexts.

Assessment and assessment for learning

Black, P. et al. (2003).

Assessment for Learning: Putting it into Practice.

Maidenhead: Open University and McGraw-Hill.

Based on a two-year research project involving 36 teachers in UK schools in Medway and Oxfordshire,

the specific assessment for learning practices that teachers found fruitful are described. The underlying ideas about learning illustrated by these developments are explored. The problems that teachers encountered when implementing the new practices in their classroom are discussed, with guidance for school management about promoting and supporting such changes.

Christodoulou, D. (2016)

Making Good Progress? The future of Assessment for learning.

Oxford: Oxford University Press

This book highlights the flaws of assessment and suggests alternative ways of assessing learning and the implications this has on teaching methods. Deliberate practice, a knowledge based curriculum and suggested principles behind formative and summative assessments are some of the areas highlighted in this book.

Education Endowment Foundation (2018) Metacognition and self-regulated learning guidance report.

An accessible overview of existing research with guidance on how to translate this into practice. This report is for senior leaders and classroom teachers who are interested in how research can improve their teaching.

Gardner, J. (Ed.) (2006)

Assessment and Learning.

London: SAGE.

A comprehensive overview of assessment to support

learning, practice-based theory on assessment for learning, and formative assessment to support individual development and motivate learners. Research-informed insights and practical examples come from a wide variety of international contexts.

Harlen, W. (2007).

Assessment of Learning.

London: SAGE

A critical review of how learners' achievements are assessed for a range of purposes, from reporting progress to selection and qualification. It considers the relationship between learning outcomes and assessment, the use of assessment for target setting and evaluation, and the role of teachers' judgements.

James, M. et al. (2007).

Improving Learning How to Learn.
Abingdon: Routledge.

Focuses on the conditions within schools, and across networks of schools, that are conducive to the promotion, in classrooms, of learning how to learn as an extension of assessment for learning.

Murchan, D, and Shiel, G. (2017) *Understanding and Applying Assessment in Education.*London: SAGE

A comprehensive guide on current practice and trends in assessment. Whilst primarily aimed at new teachers, this book is ideal for anyone wanting to get to grips with the nature of assessment in schools. Topics covered range from theoretical constructs of assessment to implementing assessment for learning in the classroom to assessment planning and policy at a whole school level.

Stobart, G. (2008).

Testing Times: The uses and abuses of assessment. Abingdon: Routledge

Assessment is a social activity is one of the main themes of this book critically discussing a range of assessment practices and their consequences for teaching and learning. Suggestions of how to reclaim assessment and ensure it is used for legitimate reasons conclude this book

Swaffield, S. (Ed.) (2008).

Unlocking Assessment: Understanding for Reflection and Application.

Abingdon: Routledge.

This book explores the values, principles, research and theories that underpin our understanding and practice of assessment. It provides practical suggestions and examples, and addresses key points about the future development of assessment. Complex but crucial ideas and issues are made accessible, so that teachers can be more confident and proactive in shaping assessment in their classrooms, in ways that support learning and avoid unintentional harmful consequences.

Weeden, P., Winter, J. and Broadfoot, P. (2002). Assessment: What's in it for Schools?
Abingdon: Routledge.

Shows how theory can best be put into practice, using as little jargon as possible. Issues discussed include: how skills of reflection, self-evaluation and personal target setting can impact on learning; how far learners are able to evaluate their own performance and what schools can do in the short,

medium and long term to promote more effective learning.

Wiliam, D. (2011).

 ${\it Embedded formative assessment}.$

Bloomington: Solution Tree.

Wiliam outlines five key strategies of formative assessment: clarifying, sharing and understanding learning intentions and criteria for success; engineering effective classroom discussions, activities and learning tasks that elicit evidence of learning; providing feedback that moves learners forward; activating learners' instructional resources for one another; activating learners as the owners of their learning. Through a summary of the research evidence he shows the impact of each of the above strategies, and offers many practical techniques that teachers can use to incorporate the strategies into their classroom practice.

Wylie, E.C. et al. (2012).

Improving formative assessment practice to empower student learning.

Thousand Oaks, CA: Corwin SAGE.

This practical guide can be used by individual teachers or collaboratively as a study guide in a professional learning community. Case studies provide examples of formative assessment in practice, along with examples of teachers implementing changes in their practice. Readers are encouraged to select a specific aspect of formative assessment to investigate, explore relevant personal practice relevant to that aspect, implement necessary changes, reflect on those changes, and continue the change process.

School evaluation

Hopkins, D. (1989).

 ${\it Evaluation for School Development.}$

Buckingham: Open University Press.

Provides a practice-focused guide to school evaluation, its methods, approaches and impact.

MacBeath, J. and McGlynn, A. (2002). Self-Evaluation: What's in it for Schools?

London: RoutledgeFalmer.

Makes school self-evaluation accessible, and through case studies helps schools and teachers to develop self-confidence in working with evaluation tools. Discusses the concerns and issues of schools to propose challenging ideas for the future.

Ofsted (2012).

School Inspection Handbook (UK).

www.ofsted.gov.uk/resources/school- inspection-handbook

(page 23ff).

In Part 2, the evaluation schedule, grade descriptors for each of the key areas: the achievement of pupils at the school, the quality of teaching in the school, the behaviour and safety of pupils at the school, the quality of leadership in, and management of, the school are given. This might form the basis from which a school could develop its own self-evaluation schedule.

Professional development

Alexandrou, A., and Swaffield S. (Eds.) (2014) Teacher Leadership and Professional Development. Abingdon: Routledge. Both leadership and professional development are central to school improvement. This book brings these two areas together to explore the role of teachers as leaders and raises the question of what difference this makes to student learning. Authors write primarily about their own experiences and research in the UK and USA but a wider international perspective is acknowledged.

Craft, A. (2002).

Continuing Professional Development: A Practical Guide for Teachers and Schools. 2nd Ed.

London: RoutledgeFalmer

For teachers and school leaders to develop understanding of professional and institutional development and of the principles of appraisal and review; to review their own professional development; develop and apply criteria for evaluating the quality and value of professional development; and identify appropriate areas for future development.

Colwell, J. and Pollard, A. (2015)

Readings for Reflective Teaching in Early Education
London: Bloomsbury

This book describes itself as a 'portable library', which is made up from a collection of 88 key readings from important contemporary and seminal publications on early years teaching and learning.

Gilchrist, G. (2018).

Practitioner enquiry: Professional development with impact for teachers, schools and systems. London: Routledge.

An introduction to all aspects of practitioner enquiry, including case studies from schools.

Hargreaves, A. and Fullan, M. (2012).

Professional Capital: Transforming Teaching in Every
School.

New York: Teachers College Press.

Presents action guidelines for classroom teachers and school leaders to transform the culture of teaching and teacher development.

Kennedy, A. (2005)

Models of Continuing Professional Development: a framework for analysis

An analysis of the potential nine models of teacher professional development has for transformative practice and professional autonomy. This article draws on international literature and uses specific examples from Scotland to raise the issues of purpose and power in continued professional development.

Moon, J. (2004).

A Handbook of Reflective and Experiential Learning. Abingdon: RoutledgeFalmer.

Guide to understanding and using reflective and experiential learning, with practical ideas, tools, activities and photocopiable resources for classroom practice.

O'Leary, M. (2014)

Classroom observation: A guide to the effective observation of teaching and learning.

London: Routledge

Whilst not a tool-kit as such, this book explores the role of classroom observation in teaching. It is situated within the academic literature, but also including practical techniques.

O'Leary, M. (2017)

Reclaiming Lesson Observation. Supporting excellence in teacher learning.

Abingdon: Routledge.

The contributors to this book come from varying educational contexts in the UK, each putting forward their own experiences of lesson observation. The experiences elaborated upon in this book range from the process of transitioning from graded to ungraded observations, an analysis of observation feedback, suggestions for embedding coaching into the observation process and an evaluation of lesson study. This is a useful book to inform reflections on the purpose and outcomes of current models of observation that take place in schools.

Pollard, A. et al. (2008). *Reflective Teaching*. London: Continuum.

The textbook for reflective classroom professionalism, summarising latest research, analysing key topics and principles, and providing resources for continuing professional development.

Pollard, A. (Ed.) (2002).

Readings for Reflective Teaching.

London: Continuum.

This book is a 'portable library' of 120 essential readings for the reflective practitioner, concerning teaching and learning.

Impact

Bassey, M. (1999).

Case study research in educational settings.

Buckingham: Open University Press.

Introduction to using the case study approach in education.

Baumfield, V., Hall, E., and Wall, K. (2013). Action research in education: Learning through practitioner enquiry (2nd Edn.). London: Sage Publications Ltd.

A guide to practitioner enquiry, with examples from teachers and guidance on data collection methods.

Churches, R. & Dommett, E. (2016).

Teacher-led research: Designing and implementing randomised controlled trials and other forms of experimental research.

Camarthen, UK: Crown House Publishing.

A guide to all aspects of conducting RCTs in an education context.

Cohen, L., Manion, L., and Morrison, K. (2017). *Research methods in education* (8th ed.). London: Routledge.

A guide to key data collection methods such as questionnaires and interviews.

Denscombe, M. (2017).

The good research guide for small-scale social research projects (6th Edn).

London: Open University Press.

An introduction to strategies and methods for research.

Education Endowment Foundation (EEF) https://educationendowmentfoundation.org.uk/

The website summarises research on education initiatives. The DIY evaluation tool gives a step-by-step approach to generating effect sizes. https://v1.educationendowmentfoundation.org.uk/uploads/pdf/EEF_DIY_Evaluation_Guide_(2013).pdf

White, R., and Gunstone, R. (1992). *Probing understanding*. London: The Falmer Press.

Techniques for investigating students' learning in detail.

Yin, R. (2018). Case study research (6th Edn.).

Los Angeles: Sage.

A guide to all aspects of case study research, including use in evaluations.

Active learning

Learning which engages students and challenges their thinking, using a variety of activities.

Assessment for learning

Essential teaching strategies during learning to help teachers and students evaluate progress in terms of understanding and skill acquisition, providing guidance and feedback for subsequent teaching and learning.

Backwash effect

The impact of an examination on teaching and learning, by influencing the design of the learning programme and activities.

Balanced curriculum

A school curriculum with a complementary range, combination and weighting of subjects. This normally includes mathematics, languages, sciences, technology, humanities, creative arts and physical education.

Benchmarking

Measuring performance against an established standard.

Bilingual education

Teaching and learning in two or more languages, developing both subject and language knowledge and skills.

Broad curriculum

Every student experiences a wide range of different subjects and learning activities.

Cambridge community

Schools using Cambridge educational programmes [currently about 10,000 schools worldwide, located in approximately 160 countries].

Cambridge Handbook

The official document detailing the regulations for running Cambridge examinations and assessments. It details the responsibilities of Centres and forms part of the customers' contract with Cambridge.

Co-curriculum

Valued educational activities that support learning beyond the school curriculum, which the school encourages and supports.

Component

A component is an assessable part of a subject examination, not certificated as a separate entity, e.g. a written paper or a practical.

Concept

A mental representation of a class of things. A concept may refer to concrete or abstract things.

Content and language integrated learning (CLIL)

In a CLIL approach to bilingual education, students develop their subject knowledge and language skills at the same time using specific teaching and learning strategies.

Core subject

A subject which is an essential part of the curriculum, typically English, Mathematics and Science.

An alternative meaning is a subject (like Global Perspectives) which becomes a focus of learning in other subjects enhanced by interdisciplinary approaches and connections with other subjects.

Coursework

Classroom assignments undertaken by learners as prescribed in the syllabus. Normally assessed by the learner's teacher according to criteria set by Cambridge. The work is moderated within the school and then by Cambridge.

Creative development

Enabling learners to develop their imagination and original thinking in solving problems and producing ideas, images, artefacts, performances and actions which have value to themselves and others.

Critical thinking

The ability, underlying all rational discourse and enquiry, to assess and evaluate analytically particular assertions or concepts in the light of either evidence or wider contexts.

Curriculum

An overall description of the aims, content, organisation, methods and evaluation of the learning programme and the factors influencing the quality of learning.

The term curriculum is often used in different contexts and different ways (please see page 5 for examples).

Curriculum framework

The systematic structure of the curriculum as set out in document(s) specifying the way in which learning and assessment is to be organised.

Curriculum mapping

Documents all the interrelationships within the curriculum, e.g. what is to be learned, how and when.

Differentiated learning

Adapting one's teaching to suit the needs of different learners for their current level of understanding and performance, by providing appropriate learning activities, support, and assessment, so that all students in the group can learn effectively (see 'Scaffolding learning').

Directed study

Learning in which the teacher as expert authority sets out and transmits the knowledge to be learned.

Distributed leadership

Builds capacity in schools by giving teachers the responsibility for leading in areas of pedagogy, curriculum development and the social and emotional wellbeing of learners.

Dual qualifications

Cambridge and national qualifications.

Educational aims

Statements of the broad purposes or intentions of the curriculum or learning programme.

E-learning

Learning that takes place using electronic media, for example online.

ESOL

English for speakers of other languages.

Exams officer

The person appointed by the principal to act on behalf of the school with responsibility for the day-to-day administration of its Cambridge examination cycle.

Experienced curriculum

What students actually learn from their whole educational experience, including both planned and unintended outcomes, as a result of all their activities in the learning environment.

First language

The language that the learner mainly uses, from childhood and at home.

Formal assessment

Planned and structured measurement of learning.

Formative assessment

Provides students with developmental feedback on their progress during the learning programme and informs the design of their next steps in learning.

Guided learning hours

The average amount of teacher-learner contact time a school typically needs to allocate for students to be well-prepared for a qualification.

Higher education

Courses in universities and colleges beyond upper secondary school, e.g. degrees.

Impact

The effect that one thing has on another thing. In schools, this could be the effect a new marking technique has on student progress.

Inclusion

Refers to integrating learners in the regular school system (and class) as opposed to placing a learner in a special school or class. Learners with special educational needs are provided with the technical, assistive or personal supports needed.

Interpersonal skills

Skills used to interact effectively with people on a day to day basis, e.g. communication, empathy

Intrapersonal skills

Skills used to reflect on, manage and develop your own thinking, behaviour and progress.

Long-term planning

Preparation for learners' progress and development over a year or more.

Management cycle

An iterative process in which school leaders set goals, implement actions, monitor and evaluate progress and outcomes in relation to the school's strategic plan.

Metacognition

In simple terms, metacognition is being aware of and in control of one's own mental processes.

Mission statement

A formal statement of the education purpose of the school.

Moderation

The process of checking that assessment standards have been applied correctly, consistently and fairly, and making adjustments if necessary to ensure that all assessments are aligned to the standards.

Multi-levelling

Assessments specifically targeted at different levels of ability.

Multilingual curriculum

Specifies subjects that will be taught in either English or the native language(s).

Non-staged assessment

All the assessment components are taken in one examination session.

Partnership in learning

Active and sustained cooperation between individuals and between institutions to achieve clear shared aims and objectives.

Pedagogy

The theory and practice of teaching and learning.

Pre-university qualifications

Provide the preparation and recognition for entry into higher education, e.g. Cambridge International A levels.

Professional development (PD)

Teachers continuously and systematically reflect on and improve their professional thinking and practice, engaging in appropriate learning opportunities to improve and upgrade their knowledge and skills.

Programme of study

A planned schedule of teaching and learning activities, relating to the curriculum framework and qualification.

Progression route

Movement of the student from one stage of learning to another in a systematic and planned sequence.

Psychomotor development

Learning and developing skills incorporating physical movement and coordination.

Qualification

The formal certificated recognition of a student's achievement at the end of a particular course, based on successful performance demonstrated through assessed evidence

Reflective practice

The process through which the teacher continuously learns from the experience of planning, practice, assessment and evaluation and can improve the quality of teaching and learning over time.

Scaffold learning

The teacher provides appropriate guidance and support to enable students to build on their current level of understanding progressively to acquire confidence and independence in using new knowledge or skill.

Scheme of assessment

The set of examination components through which a learner's achievement in relation to a particular qualification is determined.

Scheme of work

A set of planned units of learning relating to a topic, subject or stage.

School curriculum

Refers to the combination of subjects studied within a school year and in sequential years as the learner moves through the educational system provided by the school.

Second language

A language other than the national or official language of a country.

Self-regulation

The ability to monitor and control our own thoughts, emotions and behaviour.

Shared subject curriculum

Students study selected subjects in both the first language and in English which could lead to the awarding of both national and Cambridge qualifications.

Spiral approach

Areas of learning are revisited systematically within a planned curriculum so that the learner can engage in more depth and detail and acquire related knowledge and skills.

Split curriculum

Students study two curricula, some subjects are studied as part of the national curriculum and others as part of an international curriculum.

Staged assessment

Assessments are arranged throughout the period of learning.

Student-centred learning

In designing the learning activities, the teacher focuses on the needs, abilities and interests of the learner in relation to the learning outcomes.

Subject curriculum

The content and skills contained within a syllabus applied across sequential stages of student learning. These stages normally refer to school year levels, and therefore a particular age of learner.

Teacher Support

The framework of courses, resources and guidance that Cambridge provides to help teachers develop their understanding of and practice with Cambridge programmes.

Timetable

A schedule listing the times and durations of lessons across a specific period of time, often a week. This is sometimes referred to as the teaching schedule.

Vision

The school's vision is a compelling sense of the future direction of the school that should be widely shared and inspire commitment.

Zone of proximal development

The difference between what a learner can achieve when they receive expert support and what they can achieve independently.

Appendices

School years and age ranges

In this guide we refer to school years. The table below gives you an idea of how these school years correspond to learner ages from a sample of school systems in different countries.

Age	UK school year system	Malaysia school year system	New Zealand school year system	Pakistan grade system	US grade system
0-4	Nursery/Pre-school	Pre-school playgroup	Early childhood education	Pre-school	Pre-kindergarten 3-4
4–5	Reception	Kindergarten	Early childhood education	Pre-school	Pre-kindergarten 4-5
5–6	Year 1	Kindergarten	Year 1	Grade 1	Kindergarten
6–7	Year 2	Standard 1	Year 2	Grade 2	Grade 1
7–8	Year 3	Standard 2	Year 3	Grade 3	Grade 2
8–9	Year 4	Standard 3	Year 4	Grade 4	Grade 3
9–10	Year 5	Standard 4	Year 5	Grade 5	Grade 4
10–11	Year 6	Standard 5	Year 6	Grade 6	Grade 5
11-12	Year 7	Standard 6	Year 7	Grade 7	Grade 6
12–13	Year 8	Form 1	Year 8	Grade 8	Grade 7
13–14	Year 9	Form 2	Year 9	Grade 8	Grade 8
14–15	Year 10	Form 3	Year 10	Grade 9	Grade 9
15–16	Year 11	Form 4	Year 11	Grade 10	Grade 10
16–17	Year 12	Form 5	Year 12	Grade 11	Grade 11
17–18	Year 13	Form 6	Year 13	Grade 12	Grade 12

Appendicies

Cambridge IGCSE subjects with alternative courses

The list below details the subjects we offer with a number of alternative courses. For example, in mathematics we offer a Cambridge IGCSE with an investigation paper and one without. This flexibility means you can select the course that best meets your learners' needs. Some of our alternative subject courses have particular restrictions (barred combinations) when it comes to the exams.

Cambridge IGCSE science courses				
Cambridge IGCSE Combined Science				
Cambridge IGCSE Co-ordinated Sciences (Double award)				
Cambridge IGSCE Biology				
Cambridge IGSCE Chemistry				
Cambridge IGCSE Physics				
Cambridge IGCSE Physical Science				
Cambridge IGCSE Agriculture				
Cambridge IGCSE Environmental Management				
Cambridge IGCSE Food & Nutrition				
Cambridge O Level science courses				
Cambridge O level Physics				
Cambridge O level Chemistry				
Cambridge O level Biology				
Cambridge O level Combined Science				
Cambridge O level Agriculture				
Cambridge O level Food & Nutrition				

Cambridge O Level science courses
Cambridge O level Physics
Cambridge O level Chemistry
Cambridge O level Biology
Cambridge O level Combined Science
Cambridge O level Agriculture
Cambridge O level Food & Nutrition
Cambridge IGCSE mathematics courses
Cambridge IGCSE Mathematics
Cambridge IGCSE Mathematics - Additional
Cambridge IGCSE International Mathematics
Cambridge O Level mathematics courses
Cambridge O Level Mathematics
Cambridge O Level Mathematics - Additional
Cambridge IGCSE computing courses
Cambridge IGCSE Computer Science
Cambridge IGCSE Information and Communication Technology
Cambridge O Level computing courses

For a full list of the subjects, including different language options, we offer across our programmes and qualifications please see the latest Cambridge prospectus available at www.cambridgeinternational.org

Cambridge O Level Computer Science

Appendicies

Student Self-Efficacy Questionnaire

Read the statements below and circle the response that best describes you. Be honest.
There are no right or wrong answers. Please keep for reference at a later date.

Student name: Class:			Date:				
					ike me at all le like me		e me ot like me
1. I can learn w	what is taught in the class.			0	1	2	3
2. I can succee	ed at anything if I try hard enough.			0	1	2	3
3. If I practised	d every day, I could develop any skill.			0	1	2	3
4. Once I have originally th	e decided to accomplish something that is important to me, I ke nought.	ep trying	g, even if it is harder than I	0	1	2	3
5. I am confident that I will achieve the goals that I set for myself.			0	1	2	3	
6. When I am struggling and taking longer to complete something that I find difficult, I focus on my learning and change approach, instead of feeling discouraged			0	1	2	3	
7. I will succeed in whatever career path I choose.			0	1	2	3	
8. I will succee	ed in whichever college/university course I choose.			0	1	2	3
9. I believe har	rd work always pays off in the end.			0	1	2	3
10. My ability/ca	apacity grows with effort and hard work I am prepared to put i	n.		0	1	2	3
11. I believe that the brain can be developed, just like a muscle.				0	1	2	3
12. I think that, no matter who you are, you can significantly improve your level of capability.			0	1	2	3	
				Total =			

Glossary

i. Ability: talent, skill, or proficiency in a particular area.
ii. Goal: the object of a person's ambition or effort; an aim or desired result.
iii. Skill: the ability to do something well; expertise.
iv. Capability: the power or ability to do something.

Appendicies

Teacher Self-Efficacy Questionnaire

Read the statements below and circle the response that best describes you. The statements have been phrased to encourage you to think about your current approach or attitude towards them. Be honest, therefore, and, remember, there are no right or wrong answers. Please retain for reference at a later date.

Teacher name: Date:			
	0 = Nothi 1 = Some	ing influence	
1. How much, in your current practice, do you feel you can support the students in your class that are having the most difficulty?	0	1	2
2. How much, in your current practice, do you feel you can help your students think critically?	0	1	2
3. How much, in your current practice, do you feel you can motivate students who show little or no interest in school work?	0	1	2
4. How much, in your current practice, do you feel you can help students believe they can do well in school work?	0	1	2
5. How well, in your current practice, do you feel you respond to difficult questions from your students?	0	1	2
6. How much, in your current practice, do you feel you can help your students value learning?	0	1	2
7. How much, in your current practice, do you feel you can gauge/measure student understanding of what you have taught?	0	1	2
8. To what extent, in your current practice, do you feel you can craft effective questions for your students?	0	1	2
9. How much, in your current practice, do you feel you can do to foster student creativity?	0	1	2
10. How much, in your current practice, do you feel you can do to improve the understanding of a student who is struggling?	0	1	2
11. How much, in your current practice, do you feel you can do to adjust your lessons to the appropriate level for individual students?	0	1	2
12. To what extent, in your current practice, do you feel you can use a variety of assessment strategies?	0	1	2
13. To what extent, in your current practice, do you feel you can provide an alternative explanation when students are confused?	0	1	2
14. How much, in your current practice, do you feel you can assist families in helping their children do well in school?	0	1	2
15. How well, in your current practice, do you feel you can implement a variety of active learning strategies?	0	1	2
16. How well, in your current practice, do you feel you can provide appropriate challenges for high-achieving students?	0	1	2
	Total =		

Becoming a Cambridge International SchoolA guide to the registration process



We are delighted you are interested in becoming a Cambridge International School. When you join us you will be part of a global community of schools working to equip learners for success in our changing world.

Why do we ask schools to register with Cambridge?

All schools offering Cambridge qualifications must demonstrate their eligibility to do so by successfully registering with Cambridge Assessment International Education. Registration is a process for us to learn more about your values and approach to education and to establish which of our registration quality standards you meet and where we can support you to meet those you do not.

Registered schools gain access to a unique range of teaching and learning resources, professional development opportunities – and a world-class curriculum and wide range of qualifications for 5 to 19 year olds.

Building strong relationships

Each stage of the registration process contributes to developing our relationship with you. We want to understand and support the educational goals of your school, building a picture of the curriculum you make available to learners.

In return, we want you to understand our policies and procedures and to share our view of their importance. Registration also establishes a legal relationship between your school and Cambridge, and makes clear the roles and responsibilities of both parties.

What is in this guide?

This guide:

- explains the registration stages and describes how you should prepare for each stage of the process
- describes our registration quality standards and the support we provide to help you reach these standards
- provides answers to frequently asked questions about the process.

For an overview of the registration process, with a focus on the approval visit, view our short online guide at www.cambridgeinternational.org/startcambridge

There are four steps to becoming a Cambridge International School:

1. Express your interest	We aim to contact you within two working days of submitting your expression of interest.	6
2. Complete our Application Form	We aim to contact you within five working days of submitting your <i>Application Form</i> .	
3. We carry out an approval visit	We will arrange a time that is convenient to you.	
4. You become a Cambridge International School	If you are approved to become a Cambridge International School we will send your contract letter within 30 working days of the approval visit.	



Step one: Express your interest

If you are interested in becoming a Cambridge International School go to www.cambridgeinternational.org/startcambridge and complete our online form.

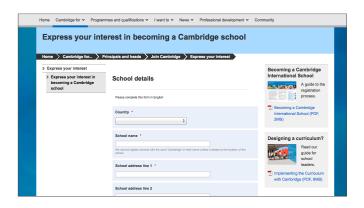
At this stage we ask:

- for your key contact details
- which Cambridge programmes and qualifications you are interested in
- whether you are ready to offer our programmes or qualifications.

What should I do before completing the Expression of Interest Form?

Before expressing interest in becoming a Cambridge International School it is a good idea to have a number of internal policy discussions to:

- consider your goals in implementing a Cambridge curriculum
- assess your resources and facilities against our requirements
- identify the impact on your teachers of moving to our programmes and qualifications.



What information is available to support these early discussions?

We provide a range of documents (see overleaf) that will help you get a better understanding of the:

- products and services we offer
- issues to consider to successfully implement a school curriculum using our programmes and qualifications
- standards you must meet to become a Cambridge International School.

If you would like to talk to us before you submit your expression of interest you can contact your local Cambridge representative or contact our Customer Services team.

What happens next?

At the end of the form you will be asked the following question: 'Do you have the necessary government permissions to offer an international education?'

If you answer 'No' to this question you will be given advice on what to do next. If you answer 'Yes' you can submit the form.

When you submit your *Expression of Interest Form* it will be assigned to your local Cambridge representative who will get in touch within five working days to advise on next steps. We will provide support and guidance throughout the process.

The reports that I complete following the approval visit ask me for evidence of the way in which the school is managed, of its educational values, and of the quality of its teaching and learning. The discussions during the approval visit are very much about learning more about the school and seeking to identify how we can support schools further to build our relationship for the future.

Local Cambridge representative



Step one: Express your interest continued

Useful documents	How it helps	Where to find it
Cambridge Prospectus	Provides an overview of the products and services we offer and the benefits of working with Cambridge. Helps you to consider the programmes and qualifications you want to offer. Start with the prospectus and then look at the syllabuses for a more detailed understanding of individual qualifications.	www.cambridgeinternational.org/prospectus
Cambridge syllabuses or curriculum frameworks, past papers and examiner reports	Gives you a more detailed understanding of the knowledge and skills learners will develop and how these will be assessed for each of the qualifications you want to offer. Looking at these documents in detail will help you identify the resources, teaching expertise and facilities needed to deliver the qualification.	Cambridge Primary Cambridge Lower Secondary Cambridge Upper Secondary Cambridge Advanced
Implementing the Curriculum with Cambridge	Provides guidance to school leaders responsible for the educational programme in a school on designing, developing, implementing and evaluating the curriculum where Cambridge programmes and qualifications are followed. Reading this guide will help you: • consider your goals in implementing a Cambridge curriculum • identify the impact on your school and teachers of moving to Cambridge programmes and qualifications.	www.cambridgeinternational.org/curriculumguide
Guide to Planning Practical Science	This guide sets out the resources and facilities that you must have in place to offer any of our science qualifications.	www.cambridgeinternational.org/startcambridge
Getting Started Guide for exams officers	To join Cambridge you need a member of staff with dedicated time to administer our exams. We call this person the exams officer. This guide gives you an overview of the role and responsibilities of a Cambridge exams officer.	www.cambridgeinternational.org/examsofficers
Cambridge Handbook	This document sets out the regulations for running Cambridge exams. It will help you understand the legal requirements and responsibilities of a Cambridge school. The document is quite detailed, so at this stage we suggest you focus on the following sections: Centre responsibilities Sections 4 and 5.	www.cambridgeinternational.org/examsofficers
Events and training calendar	Gives details of our training and events programme. Searching the calendar will give you an idea of the range of training and events we offer our schools.	www.cambridgeinternational.org/events

You may prefer to go straight to www.cambridgeinternational.org and have a look round to learn more about who we are and the programmes, qualifications and support we offer.



Step two: Complete our Application Form

If you are ready to move to the application stage your local Cambridge representative will send you the *Application Form*. The form is designed for you to tell us more about your school and learners. It also helps us get an understanding of the way in which your school meets our registration quality standards. We have registration quality standards (detailed on page 5) for the following five key areas:

- mission and educational values
- educational management and leadership
- · approach to teaching and learning
- the way in which the physical environment supports teaching and learning and meets our requirements for the secure administration of examinations
- · legal requirements.

We're concerned we might not meet all your registration quality standards

We recognise that at the time you apply your school might not fully meet all our registration quality standards. Talking with your local Cambridge representative at this stage will help you identify the standards that must be achieved on or before the approval visit, and those that you can work towards once you join Cambridge. They will also be able to tell you about the support we can provide to help you move towards full achievement.

What should I do before completing the Application Form?

Before you complete the form we recommend you:

- read our guide *Implementing the Curriculum with Cambridge* to develop an understanding of our approach to education, including the way in which our programmes and qualifications help to develop learners and teachers who are confident, responsible, reflective, innovative and engaged
- review and understand our registration quality standards (detailed on page 5)
- meet your senior management team to work out which of the quality registration standards the school meets and how to demonstrate this when completing the *Application Form*
- identify the roles and responsibilities for all staff who will be involved in managing and delivering Cambridge programmes and qualifications

• review your school's and teachers' readiness to make the transition to Cambridge, identifying any support you may need.

Please identify those teachers who will be involved in teaching courses that require the internal assessment of coursework. It is important that we know they are experienced in assessment and that they are able to meet our standards for doing so. For more information on the requirements for internally assessing Cambridge coursework see section 3 of the *Cambridge Handbook* at www.cambridgeinternational.org/examsofficers You may also consider:

- consulting parents and your governing body
- speaking to other Cambridge International Schools in your area to discuss first hand the benefits of joining Cambridge.

What support do we offer at this stage?

If you have any questions about the *Application Form* your local Cambridge representative will be happy to help. They will also be able to provide guidance on each of our registration quality standards. If you think you do not fully meet any of our registration quality standards please discuss this with your local Cambridge representative. They will work with you to develop an action plan that sets out what you need to do to meet the standard(s) and when.

What happens next?

When you have completed the *Application Form* send it to your local Cambridge representative. They will review the form and may come back to you for more information. When we have all the information we need we will make arrangements with you for the approval visit. If for any reason you are not ready to move to the approval visit stage we will advise you on the most appropriate steps to take.



Step three: We carry out an approval visit

The approval visit is the opportunity to look at the evidence that supports the information you submitted on your *Application Form*. It will be carried out by your local Cambridge representative – or by a specialist, briefed about your school and what you hope to achieve in joining Cambridge.

Meeting our registration quality standards

We will be looking to see if you meet our quality standards in five key areas.

The approval visit is not about looking to identify 'one right answer'. We know that Cambridge schools come in many forms. Our network of schools includes some of the largest, most well-established and best-resourced names in education today, but also the smallest, and the newest which deliver effective education with few resources.

What they share is a commitment to delivering the best possible education for their learners. During the approval visit we want to build a picture of your school, including your goals, educational ethos and curriculum, and to ensure that you understand our policies and procedures.

The school's mission and educational values	School management and leadership	Quality of teaching and learning	The physical environment of the school	Legal requirements
 The school has a clear mission statement that makes reference to its educational values. The culture of the school is learner-centred and supports students and teachers to become confident, responsible, reflective, innovative and engaged. International awareness and global perspectives are promoted through the curriculum and other activities. Relationships between staff and students are positive, demonstrate mutual respect, and the school has established and consistent expectations of behaviour. 	 The school principal is suitably qualified and experienced in educational leadership. The senior management team and the governing body demonstrate clear goals for the successful introduction of Cambridge qualifications and can evidence planning to support effective implementation. Senior staff are committed to setting targets for school improvement and staff development, supported by well-designed performance review and self-evaluation. There is effective and transparent management of school budgets. A complaints procedure is in place that effectively manages complaints for parents and other stakeholders. 	 The school is appropriately resourced with sufficient staff employed in management, teaching and support roles. The school curriculum is clearly expressed and accessible to teachers, students and their parents. Assessment outcomes are monitored and evaluated with clear feedback into teaching and learning strategies. Teachers have appropriate qualifications to deliver Cambridge programmes and qualifications successfully. Teaching takes account of students' diverse learning styles and individual needs. The school has a well-designed approach to the professional development of teachers and other staff. The school has a clear policy to address the language needs of learners. 	 The school premises create a positive learning environment for students. Library or learning resources adequately support delivery of the curriculum. Specialist facilities are provided (e.g. for Cambridge syllabuses in art and design, music, languages, ICT, physical education and the sciences). Secure storage arrangements for question papers and other examination materials comply with our regulations. Appropriate facilities that comply with our regulations for accommodating examinations have been identified. A good understanding of the Centre responsibilities set out in the first section of the Cambridge Handbook. 	 Fire certificate. Government approval to operate, including any approvals needed to provide the Cambridge curricula you wish to offer. Health and safety policies in line with government requirements. First aid provision in line with government requirements. Child protection policies in line with government requirements.



Step three: We carry out an approval visit continued

Checklist of documents for the approval visit

Please have these documents available at the approval visit.

- Organogram for senior management team
- Job descriptions for senior management team
- Roles and responsibilities with respect to Cambridge programmes and qualifications for senior management team
- Key staff CVs (principal and teachers involved in teaching Cambridge syllabuses)
- Code of conduct for students and teachers.
- Mission statement and educational values
- School development plan showing goals for the introduction of the Cambridge curriculum
- Performance management plan
- School curriculum policy
- School language policy
- Complaints policy
- Health and safety policy
- First aid certificates
- Fire certificates as required by local legislation
- School professional development policy
- Evidence (in English) of government approval to offer an international curriculum
- Documents to evidence other necessary government permissions.

Please save a copy of these documents onto a USB stick for the Cambridge representative to take away at the end of the visit.

The duration of the visit depends on the number of qualifications or programmes you are interested in offering. Your approval visit will typically last half a day and sometimes longer, depending on the school.

You and your local Cambridge representative will agree the visit agenda beforehand, and it will typically involve a mix of document review and classroom and facilities observation to give them the most appropriate evidence for each standard. The box on the left details the documents you are likely to need to share with us during the approval visit.

Special attention to examination administration and security

During the approval visit we will review your security arrangements for safe question paper and script storage, evaluate the school's processes for managing our exams and inspect the space you intend to use for storing confidential exam materials. It is vital that you read and understand the Cambridge Handbook, which sets out the regulations for running Cambridge exams. It will help you understand the legal requirements and responsibilities of Cambridge International Schools.

We suggest you focus on the following sections:

- Centre responsibilities
- Section 4: Before the exams
- Section 5: Exam day.

We must make sure you comply with the requirements set out in the Cambridge Handbook in time for the approval visit. Again, you can talk to your local Cambridge representative about any concerns you have connected with our regulations.

Once registered, you have a contractual responsibility to meet the regulations set out in the Cambridge Handbook. You may find it helpful to view our videos on storing

Cambridge Assessment Cambridge Handbook

question papers and running exams at www.cambridgeinternational.org/examsofficers



Step three: We carry out an approval visit continued

What happens after the visit?

After the visit your local Cambridge representative completes an *Approval Visit Form* detailing the evidence they have seen in relation to the quality registration standards. At the end of the form your local Cambridge representative will make a recommendation.

There are three categories:

- Approved
- Approved with conditions
- · Not ready to join Cambridge.

Very few schools fall into the final category as the dialogue between Cambridge and the school will, in most cases, have indicated that the school is not yet ready to complete the process before getting to this point.

If the Cambridge representative recommends your school is approved with conditions they will make clear what you need to do for full approval, and will continue to work with you to ensure that this is put in place as effectively and quickly as possible.

Your Cambridge representative will send the completed *Approval Visit Form* along with the recommendation back to Cambridge. We will email to confirm the final recommendation within 30 days of the approval visit.

I want a school to tell me their concerns – for example, what professional development is available to support my teachers? How will my examination officer learn about their new role? How can we improve our science lab? At Cambridge, we are here to help – the more schools discuss any issues they have during the visit, the more I can support them. We might record 'Approved with conditions' but then we will work with the school to ensure that the conditions are met.

Local Cambridge representative



Step four: You become a Cambridge International School

If you are approved to join Cambridge we will send you a contract letter to sign and return. Signing the contract letter and paying any relevant fees completes the registration process. At this stage we hope you will be able to reflect on a professionally rewarding, supportive and educationally valuable experience.

You will receive a *Cambridge Welcome Pack* which contains a range of information about the many ways in which your school can engage with the Cambridge learning community. The *Welcome Pack* includes:

- information on resources available for parents and learners about the Cambridge curriculum
- details on our well-established professional development programme and qualifications
- our Code of Practice
- a certificate and wall plaque confirming your status as a Cambridge International School
- login information for our administrative and Teacher Support websites
- marketing and promotional resources to support your communications
- Getting Started Guides for your exams officer and teachers.



? Frequently asked questions

How long will the registration process take?

We measure our performance on the basis of a target of three months from receipt of your *Expression of Interest Form* to confirming the outcome of your approval visit. If, however, there are delays in sending through the *Application Form* or there is a period of school closure that prevents an approval visit taking place, then it is inevitable that the process will take longer.

How much does registration cost?

You will be required to pay an Application fee, as well as the fees for the programmes you are approved to offer. Because we are transparent about our costs we will send you our fees list, which details the costs associated with being a Cambridge International School, including training and exam entry fees. In addition, your own consideration of the implications of a move to a Cambridge curriculum will have identified the cost of new resources or equipment to be funded by the school.

What happens if my school does not fully meet the registration quality standards?

One of the outcomes from an approval visit is 'Approved with conditions'. This means registration is approved but with certain restrictions until the conditions are met. This might be because further work needs to be done on the school's curriculum planning or its professional development for teachers, or because safety or examination security issues need to be tightened.

In such cases a school can be confident that when the conditions are met, full registration will be achieved. Your Cambridge representative will detail the conditions that you need to meet to achieve full registration on the *Approval Visit Form* and share this action plan with you.

If I am not approved can I apply again?

Yes. The most frequent cause for an application being rejected is that the application has been made too early – that is, before school buildings have been completed or teacher recruitment has taken place. In such circumstances we welcome a subsequent application when the timing is more appropriate.

Can you put me in touch with other schools that use Cambridge qualifications?

Yes. One of the strengths of our global community is that we can encourage links and professional exchanges between schools. The open discussion of curriculum implementation frequently occurs at principal forums, at conferences and through our discussion forums. Your local Cambridge representative can also arrange for you to observe the implementation of Cambridge programmes in other schools.

Can teachers from my school take part in Cambridge professional development activities before we are formally registered?

Yes. We encourage the early involvement of your teachers in moving to a Cambridge curriculum. Online courses for teachers new to a syllabus and workshops in key subjects available throughout the year will be particularly valuable as you prepare for registration.

Teachers can access courses that focus on more general aspects of teaching and learning, such as language awareness and using technology in the classroom. They can also choose to work towards our professional development qualifications. In addition, your teachers can access webinars, video conferences and 'Ask the Expert' sessions. You can find further information at www.cambridgeinternational.org/events

Why do schools in the UK go through a different registration process?

Inspection reports are published for all UK schools, whether state maintained or independent. In addition, all UK schools offering the examinations of any of the UK Awarding Bodies will previously have been approved to do so. Our registration process for UK schools is designed to take account of these sources of information.



Ten reasons to choose the Cambridge Pathway

We prepare school students for life, helping them develop an informed curiosity and a lasting passion for learning. We are part of the University of Cambridge.

- Our Cambridge Pathway gives students a clear path for educational success from age 5 to 19.
- Schools can shape the curriculum around how they want students to learn with a wide range of subjects and flexible ways to offer them.
- We help students discover new abilities and a wider world, and the skills they need for life, so they can achieve at school, university and work.
- Each stage builds on the learners' development from the previous one or from other educational systems.
- We offer an unrivalled choice of subjects: over 70 at IGCSE and over 50 at A Level. Schools can let students choose subjects in any combination.







- Our qualifications are widely recognised by the world's best universities and employers.
- 98% of Admissions Officers surveyed said Cambridge programmes give students excellent preparation for university.
- We provide first-class support for teachers through publications, online resources, training and professional development.
- Every year, nearly a million Cambridge learners from 10 000 schools in over 160 countries prepare for their future with an international education from Cambridge.
- We have a 150-year history of providing international exams. We are a not-for-profit organisation and the only exam board wholly owned by a world-leading university.





A clear path for educational success from age 5 to 19

Cambridge Primary 5 to 11 years old*

- English (1st and 2nd language)
- Mathematics
- Science
- ICT
- Cambridge Global Perspectives

Cambridge Lower Secondary 11 to 14 years old*

- English (1st and 2nd language)
- Mathematics
- Science
- ICT
- Cambridge Global Perspectives

Cambridge Upper Secondary 14 to 16 years old*

A wide choice of subjects at:

- Cambridge IGCSE[™] (70+ subjects)
- Cambridge O Level (40+ subjects)

Cambridge ICE Certificate

Cambridge Advanced 16 to 19 years old*

A wide choice of subjects at:

- Cambridge International AS & A Level (55+ subjects)
- Cambridge Pre-U (20+ subjects)
 Cambridge AICE Diploma
 Cambridge IPQ

Cambridge Professional Development for teachers and school leaders

*Age ranges are for guidance only

Learn • Discover • Achieve

Learn more! Visit our website at www.cambridgeinternational.org or speak to your local Cambridge International representative.

Alamance-Burlington School System

School Year 2020-2021 Salary Schedules

July 2020



Alamance-Burlington School System 1712 Vaughn Road Burlington, North Carolina 27217 336-570-6060 abss.k12.nc.us

Alamance-Burlington School System

School Year 2020-2021 Salary Schedules

The salary schedules for all employees of the Alamance-Burlington School System are included within this publication as are the procedures used to establish and pay employees, effective July 2020.

The governing provisions used to establish the salary grade and step of all employees are those set forth in the State Salary Schedule. The salary grades and ranges established by the North Carolina State Board of Education provide only a minimum and maximum salary amount; the local Board of Education is responsible for establishing provisions used to determine the placement of individuals within the salary ranges, based on the following criteria:

- Duties
- Training
- Experience
- Professional Fitness
- Continued service in the same school system

If any discrepancy between the salary amounts listed in this publication and those published by the North Carolina State Department of Public Instruction exists, the state salary scales have precedence.

Contents

► Salary Supplements:	Certified, Central Office Admin, Principals, APs	3
► Administrative:	Central Office Admin Schedule Principal Schedule Assistant Principal Schedule	4 5 6
►Teacher:	Bachelor Salary Schedule Master Salary Schedule Advanced Degree Salary Schedules Doctorate Salary Schedule	7 8 9 10
►Psychologist/Speech/Audiologist Salary Schedule		
► Coaching & Co-Curricular Supplements		
►Occupational/Physical Therap	ist Salary Schedule	14
► Non-Certified Employee:	Salary Schedule Placement Employee Pay Grades Salary Schedules	15 16 20
► Exceptional Children Teacher	Assistants Salary Schedule	39
► Nurse Salary Schedule		
► HI Interpreter Salary Schedule		
▶ Bus Driver Salary Schedule		
► Substitute Teacher Salary Schedule		43
▶Day Care Salary Schedule		

Alamance-Burlington School System School Year 2020-2021 Salary Supplements

Certified Staff			
# Years w/ABSS	Supplement		
Consecutively	Percent		
0 - 5 yrs	10.00%		
6 - 10 yrs	11.00%		
11+ yrs	12.00%		

Central Office Administrators			
Administrative Supplement Local Salary			
Position	Percent	Differential	
Coordinator	7%	\$150	
Director	11%	\$250	
Executive Director	12%	\$280	
Assistant Superintendent	13%	\$300	
Associate Superintendent	16%	\$500	

Principals			
Supplement			
Percent			
11.50%			
12.50%			
14.50%			
	Supplement Percent 11.50% 12.50%		

Assistant Principals		
	Supplemen	t
# of Years	Percent	
0 - 5	9.50%	Note: Middle School AP's receive additional 0.25%
6 - 10	10.50%	High School AP's receive additional 0.50%
11+	11.50%	

Supplement percents are percents of position's base salary.

ALAMANCE BURLINGTON SCHOOL SYSTEM School Year 2020-2021

State Central Office Administrative Salary Schedule

	School	School	School	School	School	Supt IV
	Admin II	Admin III	Admin IV	Admin V	Admin VI	10,001 -
		Director	Exec Dir	Asst Supt	Assoc Supt	-
Step					-	
•						
18	3804					
19	3903					
20	3987	4030				
21	3987	4128	4187			
22	4049	4212	4289	4350		
23	4204	4212	4372	4455		
24	4239	4274	4372	4542	4607	
25	4278	4443	4435	4542	4719	
26	4438	4484	4613	4606	4811	
27	4522	4524	4656	4792	4811	
28	4608	4697	4700	4837	4875	
29	4697	4787	4881	4882	5071	6039
30	4787	4879	4974	5068	5121	6187
31	4879	4973	5069	5166	5168	6309
32	4973	5068	5167	5265	5367	6309
33	5068	5166	5268	5367	5469	6374
34	5166	5265	5368	5469	5575	6632
35	5265	5367	5470	5575	5683	6691
36	5367	5469	5576	5683	5794	6760
37	5469	5575	5684	5794	5905	7023
38	5575	5683	5795	5905	6021	7158
39	5683	5794	5907	6021	6139	7298
40	5794	5905	6022	6139	6256	7440
41	5905	6021	6140	6256	6378	7584
42	6021	6139	6257	6378	6502	7733
43	6139	6256	6380	6502	6629	7883
44	6256	6378	6505	6629	6758	8037
45	6378	6502	6630	6758	6890	8195
46	6502	6629	6760	6890	7024	8354
47	6629	6758	6892	7024	7159	8518
48	6758	6890	7025	7159	7300	8685
49	7025	7059	7162	7300	7441	8856
50		7159	7301	7441	7585	9029
51		7445	7442	7585	7736	9206
52			7737	7770	7885	9387
53				8045	8041	9570
54					8198	9760
55					8524	9952
56						10148
57						10346
58						10550
59						10757
60						11184

ALAMANCE-BURLINGTON SCHOOL SYSTEM School Year 2020-2021 State Salary Schedule for Principals

		Base
ADM	Schedul	e/ Monthly
Range	Pay Lev	el <u>Salary</u>
up to 200	В0	\$5,677.08
201 to 400	B1	\$5,960.92
401 to 700	B2	\$6,244.83
701 to 1,000	B3	\$6,528.67
1,001 to 1,600	B4	\$6,812.50
over 1,600	B5	\$7,096.33

İ	
	Growth Met
Schedule/	Monthly
Pay Level	<u>Salary</u>
G0	\$6,244.83
G1	\$6,557.00
G2	\$6,869.33
G3	\$7,181.50
G4	\$7,493.75
G5	\$7,806.00

	Growth Exceeded
Schedule/	Monthly
Pay Level	<u>Salary</u>
E0	\$6,812.50
E1	\$7,153.08
E2	\$7,493.83
E3	\$7,834.42
E4	\$8,175.00
E5	\$8,515.58

ALAMANCE-BURLINGTON SCHOOL SYSTEM School Year 2020-2021 State Salary Schedule for Assistant Principals

	Asst.Prin.(Masters)	Asst.Prin.(Advanced)	Asst.Prin.(Doctorate)
Years of			
Exp	Monthly Salary	Monthly Salary	Monthly Salary
0	\$4,165	\$4,291	\$4,418
1	\$4,284	\$4,410	\$4,537
2	\$4,403	\$4,529	\$4,656
3	\$4,522	\$4,648	\$4,775
4	\$4,641	\$4,767	\$4,894
5	\$4,760	\$4,886	\$5,013
6	\$4,879	\$5,005	\$5,132
7	\$4,998	\$5,124	\$5,251
8	\$5,117	\$5,243	\$5,370
9	\$5,236	\$5,362	\$5,489
10	\$5,355	\$5,481	\$5,608
11	\$5,474	\$5,600	\$5,727
12	\$5,593	\$5,719	\$5,846
13	\$5,712	\$5,838	\$5,965
14	\$5,831	\$5,957	\$6,084
15	\$5,950	\$6,076	\$6,203
16	\$5,950	\$6,076	\$6,203
17	\$5,950	\$6,076	\$6,203
18	\$5,950	\$6,076	\$6,203
19	\$5,950	\$6,076	\$6,203
20	\$5,950	\$6,076	\$6,203
21	\$5,950	\$6,076	\$6,203
22	\$5,950	\$6,076	\$6,203
23	\$5,950	\$6,076	\$6,203
24	\$5,950	\$6,076	\$6,203
25+	\$6,188	\$6,314	\$6,441

Years

of
<u>Exp</u>
0
1
2
3
4
5
3 4 5 6
7
8
9
10
11
12 13
13
14
15
16
17
18
19
20
21
22
23
24
25+

Bachelor's Teacher				
	Monthly Daily Hourly			
Salary	(21.50 day)	(8hr/day)		
\$3,500	\$162.79	\$20.35		
\$3,600	\$167.44	\$20.93		
\$3,700	\$172.09	\$21.51		
\$3,800	\$176.74	\$22.09		
\$3,900	\$181.40	\$22.67		
\$4,000	\$186.05	\$23.26		
\$4,100	\$190.70	\$23.84		
\$4,200	\$195.35	\$24.42		
\$4,300	\$200.00	\$25.00		
\$4,400	\$204.65	\$25.58		
\$4,500	\$209.30	\$26.16		
\$4,600	\$213.95	\$26.74		
\$4,700	\$218.60	\$27.33		
\$4,800	\$223.26	\$27.91		
\$4,900	\$227.91	\$28.49		
\$5,000	\$232.56	\$29.07		
\$5,000	\$232.56	\$29.07		
\$5,000	\$232.56	\$29.07		
\$5,000	\$232.56	\$29.07		
\$5,000	\$232.56	\$29.07		
\$5,000	\$232.56	\$29.07		
\$5,000	\$232.56	\$29.07		
\$5,000	\$232.56	\$29.07		
\$5,000	\$232.56	\$29.07		
\$5,000	\$232.56	\$29.07		
\$5,200	\$241.86	\$30.23		

Bachelor's w/ NBPTS			
Monthly	onthly Daily Hourly		
<u>Salary</u>	(21.50 day)	(8hr/day)	
N/A	N/A	N/A	
N/A	N/A	N/A	
N/A	N/A	N/A	
\$4,256	\$197.95	\$24.74	
\$4,368	\$203.16	\$25.40	
\$4,480	\$208.37	\$26.05	
\$4,592	\$213.58	\$26.70	
\$4,704	\$218.79	\$27.35	
\$4,816	\$224.00	\$28.00	
\$4,928	\$229.21	\$28.65	
\$5,040	\$234.42	\$29.30	
\$5,152	\$239.63	\$29.95	
\$5,264	\$244.84	\$30.60	
\$5,376	\$250.05	\$31.26	
\$5,488	\$255.26	\$31.91	
\$5,600	\$260.47	\$32.56	
\$5,600	\$260.47	\$32.56	
\$5,600	\$260.47	\$32.56	
\$5,600	\$260.47	\$32.56	
\$5,600	\$260.47	\$32.56	
\$5,600	\$260.47	\$32.56	
\$5,600	\$260.47	\$32.56	
\$5,600	\$260.47	\$32.56	
\$5,600	\$260.47	\$32.56	
\$5,600	\$260.47	\$32.56	
\$5,824	\$270.88	\$33.86	

Years

of			
<u>Exp</u>			
0			
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			
22			
23			
24			
25+			

Master's Teacher			
Monthly	Monthly Daily		
<u>Salary</u>	(21.50 day)	(8hr/day)	
\$3,850	\$179.07	\$22.38	
\$3,960	\$184.19	\$23.02	
\$4,070	\$189.30	\$23.66	
\$4,180	\$194.42	\$24.30	
\$4,290	\$199.53	\$24.94	
\$4,400	\$204.65	\$25.58	
\$4,510	\$209.77	\$26.22	
\$4,620	\$214.88	\$26.86	
\$4,730	\$220.00	\$27.50	
\$4,840	\$225.12	\$28.14	
\$4,950	\$230.23	\$28.78	
\$5,060	\$235.35	\$29.42	
\$5,170	\$240.47	\$30.06	
\$5,280	\$245.58	\$30.70	
\$5,390	\$250.70	\$31.34	
\$5,500	\$255.81	\$31.98	
\$5,500	\$255.81	\$31.98	
\$5,500	\$255.81	\$31.98	
\$5,500	\$255.81	\$31.98	
\$5,500	\$255.81	\$31.98	
\$5,500	\$255.81	\$31.98	
\$5,500	\$255.81	\$31.98	
\$5,500	\$255.81	\$31.98	
\$5,500	\$255.81	\$31.98	
\$5,500	\$255.81	\$31.98	
\$5,720	\$266.05	\$33.26	

Master's w/NBPTS			
Monthly	onthly Daily		
<u>Salary</u>	(21.50 day)	(8hr/day)	
N/A	N/A	N/A	
N/A	N/A	N/A	
N/A	N/A	N/A	
\$4,636	\$215.63	\$26.95	
\$4,758	\$221.30	\$27.66	
\$4,880	\$226.98	\$28.37	
\$5,002	\$232.65	\$29.08	
\$5,124	\$238.33	\$29.79	
\$5,246	\$244.00	\$30.50	
\$5,368	\$249.67	\$31.21	
\$5,490	\$255.35	\$31.92	
\$5,612	\$261.02	\$32.63	
\$5,734	\$266.70	\$33.34	
\$5,856	\$272.37	\$34.05	
\$5,978	\$278.05	\$34.76	
\$6,100	\$283.72	\$35.47	
\$6,100	\$283.72	\$35.47	
\$6,100	\$283.72	\$35.47	
\$6,100	\$283.72	\$35.47	
\$6,100	\$283.72	\$35.47	
\$6,100	\$283.72	\$35.47	
\$6,100	\$283.72	\$35.47	
\$6,100	\$283.72	\$35.47	
\$6,100	\$283.72	\$35.47	
\$6,100	\$283.72	\$35.47	
\$6,344	\$295.07	\$36.88	

Years of Exp

of			
Exp			
0			
1			
2			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			
22			
23			
24			
25+			

ADVANCED (6thYEAR)			
10	Daily	Hourly	
<u>Month</u>	(21.50 day)	(8hr/day)	
\$3,976	\$184.93	\$23.12	
\$4,086	\$190.05	\$23.76	
\$4,196	\$195.16	\$24.40	
\$4,306	\$200.28	\$25.03	
\$4,416	\$205.40	\$25.67	
\$4,526	\$210.51	\$26.31	
\$4,636	\$215.63	\$26.95	
\$4,746	\$220.74	\$27.59	
\$4,856	\$225.86	\$28.23	
\$4,966	\$230.98	\$28.87	
\$5,076	\$236.09	\$29.51	
\$5,186	\$241.21	\$30.15	
\$5,296	\$246.33	\$30.79	
\$5,406	\$251.44	\$31.43	
\$5,516	\$256.56	\$32.07	
\$5,626	\$261.67	\$32.71	
\$5,626	\$261.67	\$32.71	
\$5,626	\$261.67	\$32.71	
\$5,626	\$261.67	\$32.71	
\$5,626	\$261.67	\$32.71	
\$5,626	\$261.67	\$32.71	
\$5,626	\$261.67	\$32.71	
\$5,626	\$261.67	\$32.71	
\$5,626	\$261.67	\$32.71	
\$5,626	\$261.67	\$32.71	
\$5,846	\$271.91	\$33.99	

ADVANCED (6thYEAR)			
w/ NBPTS Cert.			
10	Hourly		
<u>Month</u>	(21.50 day)	(8hr/day)	
N/A	N/A	N/A	
N/A	N/A	N/A	
N/A	N/A	N/A	
\$4,762	\$221.49	\$27.69	
\$4,884	\$227.16	\$28.40	
\$5,006	\$232.84	\$29.10	
\$5,128	\$238.51	\$29.81	
\$5,250	\$244.19	\$30.52	
\$5,372	\$249.86	\$31.23	
\$5,494	\$255.53	\$31.94	
\$5,616	\$261.21	\$32.65	
\$5,738	\$266.88	\$33.36	
\$5,860	\$272.56	\$34.07	
\$5,982	\$278.23	\$34.78	
\$6,104	\$283.91	\$35.49	
\$6,226	\$289.58	\$36.20	
\$6,226	\$289.58	\$36.20	
\$6,226	\$289.58	\$36.20	
\$6,226	\$289.58	\$36.20	
\$6,226	\$289.58	\$36.20	
\$6,226	\$289.58	\$36.20	
\$6,226	\$289.58	\$36.20	
\$6,226	\$289.58	\$36.20	
\$6,226	\$289.58	\$36.20	
\$6,226	\$289.58	\$36.20	
\$6,470	\$300.93	\$37.62	

Years

of		
<u>Exp</u>		
0		
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		
25+		

DOCTORATE			
10	10 Daily		
<u>Month</u>	(21.50 day)	(8hr/day)	
\$4,103	\$190.84	\$23.85	
\$4,213	\$195.95	\$24.49	
\$4,323	\$201.07	\$25.13	
\$4,433	\$206.19	\$25.77	
\$4,543	\$211.30	\$26.41	
\$4,653	\$216.42	\$27.05	
\$4,763	\$221.53	\$27.69	
\$4,873	\$226.65	\$28.33	
\$4,983	\$231.77	\$28.97	
\$5,093	\$236.88	\$29.61	
\$5,203	\$242.00	\$30.25	
\$5,313	\$247.12	\$30.89	
\$5,423	\$252.23	\$31.53	
\$5,533	\$257.35	\$32.17	
\$5,643	\$262.47	\$32.81	
\$5,753	\$267.58	\$33.45	
\$5,753	\$267.58	\$33.45	
\$5,753	\$267.58	\$33.45	
\$5,753	\$267.58	\$33.45	
\$5,753	\$267.58	\$33.45	
\$5,753	\$267.58	\$33.45	
\$5,753	\$267.58	\$33.45	
\$5,753	\$267.58	\$33.45	
\$5,753	\$267.58	\$33.45	
\$5,753	\$267.58	\$33.45	
\$5,973	\$277.81	\$34.73	

DOCTORATE			
w/ NBPTS Cert.			
10	Hourly		
<u>Month</u>	(21.50 day)	(8hr/day)	
N/A	N/A	N/A	
N/A	N/A	N/A	
N/A	N/A	N/A	
\$4,889	\$227.40	\$28.42	
\$5,011	\$233.07	\$29.13	
\$5,133	\$238.74	\$29.84	
\$5,255	\$244.42	\$30.55	
\$5,377	\$250.09	\$31.26	
\$5,499	\$255.77	\$31.97	
\$5,621	\$261.44	\$32.68	
\$5,743	\$267.12	\$33.39	
\$5,865	\$272.79	\$34.10	
\$5,987	\$278.47	\$34.81	
\$6,109	\$284.14	\$35.52	
\$6,231	\$289.81	\$36.23	
\$6,353	\$295.49	\$36.94	
\$6,353	\$295.49	\$36.94	
\$6,353	\$295.49	\$36.94	
\$6,353	\$295.49	\$36.94	
\$6,353	\$295.49	\$36.94	
\$6,353	\$295.49	\$36.94	
\$6,353	\$295.49	\$36.94	
\$6,353	\$295.49	\$36.94	
\$6,353	\$295.49	\$36.94	
\$6,353	\$295.49	\$36.94	
\$6,597	\$306.84	\$38.35	

ALAMANCE-BURLINGTON SCHOOL SYSTEM School Year 2020-2021 State Certifed Psychologist, Speech, Audiologist Schedule

Years	Master's		
of	Monthly	Daily	Hourly
<u>Exp</u>	<u>Salary</u>	(21.50 day)	(8hr/day)
0	\$4,400	\$204.65	\$25.58
1	\$4,510	\$209.77	\$26.22
2	\$4,620	\$214.88	\$26.86
3	\$4,730	\$220.00	\$27.50
4	\$4,840	\$225.12	\$28.14
5	\$4,950	\$230.23	\$28.78
6	\$5,060	\$235.35	\$29.42
7	\$5,170	\$240.47	\$30.06
8	\$5,280	\$245.58	\$30.70
9	\$5,390	\$250.70	\$31.34
10	\$5,500	\$255.81	\$31.98
11	\$5,500	\$255.81	\$31.98
12	\$5,500	\$255.81	\$31.98
13	\$5,500	\$255.81	\$31.98
14	\$5,500	\$255.81	\$31.98
15	\$5,500	\$255.81	\$31.98
16	\$5,500	\$255.81	\$31.98
17	\$5,500	\$255.81	\$31.98
18	\$5,500	\$255.81	\$31.98
19	\$5,500	\$255.81	\$31.98
20	\$5,720	\$266.05	\$33.26
21	\$5,720	\$266.05	\$33.26
22	\$5,720	\$266.05	\$33.26
23	\$5,720	\$266.05	\$33.26
24	\$5,720	\$266.05	\$33.26
25+	\$6,149	\$286.00	\$35.75

Advanced			
Monthly	Daily	Hourly	
<u>Salary</u>	(21.50 day)	(8hr/day)	
\$4,526	\$210.51	\$26.31	
\$4,636	\$215.63	\$26.95	
\$4,746	\$220.74	\$27.59	
\$4,856	\$225.86	\$28.23	
\$4,966	\$230.98	\$28.87	
\$5,076	\$236.09	\$29.51	
\$5,186	\$241.21	\$30.15	
\$5,296	\$246.33	\$30.79	
\$5,406	\$251.44	\$31.43	
\$5,516	\$256.56	\$32.07	
\$5,626	\$261.67	\$32.71	
\$5,626	\$261.67	\$32.71	
\$5,626	\$261.67	\$32.71	
\$5,626	\$261.67	\$32.71	
\$5,626	\$261.67	\$32.71	
\$5,626	\$261.67	\$32.71	
\$5,626	\$261.67	\$32.71	
\$5,626	\$261.67	\$32.71	
\$5,626	\$261.67	\$32.71	
\$5,626	\$261.67	\$32.71	
\$5,846	\$271.91	\$33.99	
\$5,846	\$271.91	\$33.99	
\$5,846	\$271.91	\$33.99	
\$5,846	\$271.91	\$33.99	
\$5,846	\$271.91	\$33.99	
\$6,275	\$291.86	\$36.48	

Doctorate							
Monthly Daily Hourly							
<u>Salary</u>	(21.50 day)	(8hr/day)					
\$4,653	\$216.42	\$27.05					
\$4,763	\$221.53	\$27.69					
\$4,873	\$226.65	\$28.33					
\$4,983	\$231.77	\$28.97					
\$5,093	\$236.88	\$29.61					
\$5,203	\$242.00	\$30.25					
\$5,313	\$247.12	\$30.89					
\$5,423	\$252.23	\$31.53					
\$5,533	\$257.35	\$32.17					
\$5,643	\$262.47	\$32.81					
\$5,753	\$267.58	\$33.45					
\$5,753	\$267.58	\$33.45					
\$5,753	\$267.58	\$33.45					
\$5,753	\$267.58	\$33.45					
\$5,753	\$267.58	\$33.45					
\$5,753	\$267.58	\$33.45					
\$5,753	\$267.58	\$33.45					
\$5,753	\$267.58	\$33.45					
\$5,753	\$267.58	\$33.45					
\$5,753	\$267.58	\$33.45					
\$5,973	\$277.81	\$34.73					
\$5,973	\$277.81	\$34.73					
\$5,973	\$277.81	\$34.73					
\$5,973	\$277.81	\$34.73					
\$5,973	\$277.81	\$34.73					
\$6,402	\$297.77	\$37.22					

ALAMANCE-BURLINGTON SCHOOL SYSTEM School Year 2020-2021 Salary Schedule for Coaching/ Co-Curricular

High School Coaching and Co-Curricular Supplement Schedule

rigii School Coaching and C							1	1									
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16+
Athletic Director	1,575	1,733	1,890	2,048	2,205	2,363	2,520	2,678	2,835	2,993	3,150	3,308	3,465	3,623	3,780	3,938	4,095
Asst Athletic Director*	683	788	893	998	1,103	1,208	1,313	1,418	1,523	1,628	1,733	1,838	1,943	2,048	2,153	2,258	2,363
Athletic Trainer	945	998	1,050	1,103	1,155	1,208	1,260	1,313	1,365	1,418	1,470	1,523	1,575	1,628	1,680	1,733	1,785
Asst Athletic Trainer*	525	551	578	604	630	656	683	709	735	761	788	814	840	866	893	919	945
Head Football	1,575	1,733	1,890	2,048	2,205	2,363	2,520	2,678	2,835	2,993	3,150	3,308	3,465	3,623	3,780	3,938	4,095
Assistant Football	683	788	893	998	1,103	1,208	1,313	1,418	1,523	1,628	1,733	1,838	1,943	2,048	2,153	2,258	2,363
Weightlifting	105	131	158	184	210	236	263	289	315	341	368	394	420	446	473	499	525
Head Basketball	1,050	1,155	1,260	1,365	1,470	1,575	1,680	1,785	1,890	1,995	2,100	2,205	2,310	2,415	2,520	2,625	2,730
Assistant Basketball	630	683	735	788	840	893	945	998	1,050	1,103	1,155	1,208	1,260	1,313	1,365	1,418	1,470
JV Basketball	893	945	998	1,050	1,103	1,155	1,208	1,260	1,313	1,365	1,418	1,470	1,523	1,575	1,628	1,680	1,733
Baseball	1,076	1,129	1,181	1,234	1,286	1,339	1,391	1,444	1,496	1,549	1,601	1,654	1,706	1,759	1,811	1,864	1,916
Asst Baseball	630	683	735	788	840	893	945	998	1,050	1,103	1,155	1,208	1,260	1,313	1,365	1,418	1,470
JV Baseball	656	683	709	735	761	788	814	840	866	893	919	945	971	998	1,024	1,050	1,076
Lacrosse	1,000	1,053	1,106	1,159	1,212	1,265	1,318	1,371	1,424	1,477	1,530	1,583	1,636	1,689	1,742	1,795	1,848
Assistant Lacrosse	500	553	606	659	712	765	818	871	924	977	1,030	1,083	1,136	1,189	1,242	1,295	1,348
JV Lacrosse	550	603	656	709	762	815	868	921	974	1,027	1,080	1,133	1,186	1,239	1,292	1,345	1,398
Track	814	840	866	893	919	945	971	998	1,024	1,050	1,076	1,103	1,129	1,155	1,181	1,208	1,234
Assistant Track	420	446	473	499	525	551	578	604	630	656	683	709	735	761	788	814	840
Cross Country	420	446	473	499	525	551	578	604	630	656	683	709	735	761	788	814	840
Wrestling	1,050	1,103	1,155	1,208	1,260	1,313	1,365	1,418	1,470	1,523	1,575	1,628	1,680	1,733	1,785	1,838	1,890
JV Wrestling	499	525	551	578	604	630	656	683	709	735	761	788	814	840	866	893	919
Golf	525	551	578	604	630	656	683	709	735	761	788	814	840	866	893	919	945
Soccer	630	656	683	709	735	761	788	814	840	866	893	919	945	971	998	1,024	1,050
JV Soccer	420	446	473	499	525	551	578	604	630	656	683	709	735	761	788	814	840
Tennis	525	551	578	604	630	656	683	709	735	761	788	814	840	866	893	919	945
Volleyball	656	683	709	735	761	788	814	840	866	893	919	945	971	998	1,024	1,050	1,076
JV Volleyball	420	446	473	499	525	551	578	604	630	656	683	709	735	761	788	814	840
Cheerleading	893	945	998	1,050	1,103	1,155	1,208	1,260	1,313	1,365	1,418	1,470	1,523	1,575	1,628	1,680	1,733
JV Cheerleading	656	683	709	735	761	788	814	840	866	893	919	945	971	998	1,024	1,050	1,076
Swimming/Diving	420	446	473	499	525	551	578	604	630	656	683	709	735	761	788	814	840
Indoor Track	263	289	315	341	368	394	420	446	473	499	525	551	578	604	630	656	683
Softball	1,076	1,129	1,181	1,234	1,286	1,339	1,391	1,444	1,496	1,549	1,601	1,654	1,706	1,759	1,811	1,864	1,916
Asst Softball	630	683	735	788	840	893	945	998	1,050	1,103	1,155	1,208	1,260	1,313	1,365	1,418	1,470
JV Softball	656	683	709	735	761	788	814	840	866	893	919	945	971	998	1,024	1,050	1,076
Band Director	1,076	1,129	1,181	1,234	1,286	1,339	1,391	1,444	1,496	1,549	1,601	1,654	1,706	1,759	1,811	1,864	1,916
Asst Band Director*	525	551	578	604	630	656	683	709	735	761	788	814	840	866	893	919	945
Orchestra	525	551	578	604	630	656	683	709	735	761	788	814	840	866	893	919	945
Chorus	814	840	866	893	919	945	971	998	1,024	1,050	1,076	1,103	1,129	1,155	1,181	1,208	1,234
Drama	420	446	473	499	525	551	578	604	630	656	683	709	735	761	788	814	840
Band Camp/Musical	236	263	289	315	341	368	394	420	446	473	499	525	551	578	604	630	656
Dance	420	446	473	499	525	551	578	604	630	656	683	709	735	761	788	814	840
	1				<u> </u>												

ALAMANCE-BURLINGTON SCHOOL SYSTEM School Year 2020-2021 Salary Schedule for Coaching/ Co-Curricular

Middle School Coaching and Co-Curricular Supplement Schedule

				_			_	_	_	_	4.0		4.0	4.0			40.
1	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16+
Athletic Director	788	788	788	919	919	1,050	1,050	1,050	1,181	1,181	1,181	1,181	1,181	1,181	1,181	1,181	1,313
Head Football	788	788	788	919	919	1,050	1,050	1,050	1,181	1,181	1,181	1,181	1,181	1,181	1,181	1,181	1,313
Assistant Football	525	525	525	662	662	798	798	798	935	935	935	935	935	935	935	935	1,071
Head Basketball	662	662	662	798	798	935	935	935	1,071	1,071	1,071	1,071	1,071	1,071	1,071	1,071	1,208
Baseball	525	525	525	604	604	683	683	683	761	761	761	761	761	761	761	761	840
Asst Baseball	307	307	307	354	354	400	400	400	446	446	446	446	446	446	446	446	492
Softball	525	525	525	604	604	683	683	683	761	761	761	761	761	761	761	761	840
Asst Softball	307	307	307	354	354	400	400	400	446	446	446	446	446	446	446	446	492
Volleyball	525	525	525	604	604	683	683	683	761	761	761	761	761	761	761	761	840
Cheerleading	394	394	394	473	473	551	551	551	551	551	551	551	551	551	551	551	630
Soccer	525	525	525	604	604	683	683	683	761	761	761	761	761	761	761	761	840
Track	525	525	525	525	525	525	525	525	525	525	525	525	525	525	525	525	525
Asst Track	263	289	315	341	368	394	420	446	473	499	525	525	525	525	525	525	525
Cross Country	525	525	525	525	525	525	525	525	525	525	525	525	525	525	525	525	525
Asst Cross Country	263	289	315	341	368	394	420	446	473	499	525	525	525	525	525	525	525
Athletic Trainer*	630	630	630	709	709	788	788	788	866	866	866	866	866	866	866	866	945
Band	368	368	368	446	446	525	525	525	604	604	604	604	604	604	604	604	683
Chorus	315	315	315	368	368	420	420	420	420	525	525	525	525	525	525	525	630
Dance	315	315	315	368	368	420	420	420	420	525	525	525	525	525	525	525	630
Drama	315	315	315	368	368	420	420	420	420	525	525	525	525	525	525	525	630
Orchestra	236	236	236	315	315	394	394	473	473	473	473	473	473	473	473	473	551
Intramurals Director	420	420	420	420	420	420	420	420	420	420	420	420	420	420	420	420	420
Intramurals Asst Dir.	210	210	210	210	210	210	210	210	210	210	210	210	210	210	210	210	210

Alamance-Burlington School System Guidelines for Coaching Supplements

- 1. The Alamance-Burlington School System will only pay for coaching supplements for a school's conference sports.
- 2. Years of coaching experience criteria:
- A. Only years of coaching experience at an accredited middle/junior, high school, or college/university will be used to determine placement on the supplement scale.
 - B. Coaching the same sport will earn one step with each year of experience (same sport 1 year = 1 step).
 - C. The coach must have been a paid coach.
 - D. Past high school athletic director will earn one step with each year of experience as athletic director.
- E. A coach moving from coaching to athletic director will earn one step for every two years of coaching experience (2 years coaching = 1 step for athletic directors).
- 3. Coaching experience while practice teaching cannot be used.
- 4. The athletic trainer shall not have other coaching responsibilities during the fall football season (State Law).
- 5. Supplemental pay positions marked with an asterisk (*) may be paid from school funds.

Coaching and co-curricular supplements were adjusted effective July 1, 2007. A 16th step has also been added.

ALAMANCE-BURLINGTON SCHOOL SYSTEM School Year 2020-2021 State Salary Schedule for OT/PT'S

<u>GRADE</u>	<u>STEP</u>	<u>SALARY</u>	<u>HOURLY</u>
78	0	4,644.41	27.00
78	1-3	4,686.91	27.25
78	4-5	4,703.25	27.34
78	6	4,711.42	27.39
78	7	4,719.58	27.44
78	8	4,784.23	27.82
78	9	4,863.18	28.27
78	10	4,935.33	28.69
78	11	5,048.20	29.35
78	12	5,125.87	29.80
78	13	5,210.82	30.30
78	14	5,244.64	30.49
78	15	5,286.95	30.74
78	16	5,354.05	31.13
78	17	5,420.98	31.52
78	18	5,491.94	31.93
78	19	5,562.24	32.34
78	20	5,625.22	32.70
78	21	5,692.81	33.10
78	22	5,760.11	33.49
78	23	5,828.20	33.88
78	24	5,880.47	34.19
78	25	5,993.48	34.85
78	26	6,076.20	35.33
78	27	6,118.14	35.57
78	28	6,266.62	36.43
78	29	6,327.20	36.79
78	30	6,384.14	37.12
78	31	6,441.60	37.45
78	32	6,499.57	37.79
78	33	6,558.07	38.13
78	34	6,617.09	38.47
78	35+	6,676.65	38.82

	i		
GRADE	STEP	SALARY	HOURLY
78G	0	4,757.26	27.03
78G	1-3	4,799.76	27.27
78G	4-5	4,816.49	27.37
78G	6	4,824.86	27.41
78G	7	4,833.23	27.46
78G	8	4,897.33	27.83
78G	9	4,975.78	28.27
78G	10	5,048.05	28.68
78G	11	5,161.21	29.33
78G	12	5,238.89	29.77
78G	13	5,323.51	30.25
78G	14	5,373.27	30.53
78G	15	5,422.46	30.81
78G	16	5,491.85	31.20
78G	17	5,561.05	31.60
78G	18	5,633.33	32.01
78G	19	5,704.90	32.41
78G	20	5,771.22	32.79
78G	21	5,840.31	33.18
78G	22	5,908.80	33.57
78G	23	5,978.10	33.97
78G	24	6,044.70	34.34
78G	25	6,148.57	34.94
78G	26	6,234.07	35.42
78G	27	6,276.19	35.66
78G	28	6,427.26	36.52
78G	29	6,490.36	36.88
78G	30	6,548.77	37.21
78G	31	6,607.71	37.54
78G	32	6,667.18	37.88
78G	33	6,727.18	38.22
78G	34	6,787.73	38.57
78G	35+	6,848.82	38.91

Alamance-Burlington School System Non-Certified Employee Salary Scale Placement

General Guidelines

- 1. All personnel were converted to the appropriate salary schedule prior to July 1, 1996. Placement was determined on years of experience as documented in employment files.
- 2. Each current employee's experience rating is based on employment as of June 30, 2004.
- 3. Any employee may request a recalculation of experience rating by the Human Resources Department by appointment. Additional credit for experience not counted may be added by providing adequate written, signed verification.
- 4. Any adjustment in salary is retroactive only to the effective date in the current fiscal year.
- 5. The Board of Education reserves the right to suspend the granting of experience credit for salary purposes if deemed necessary.
- 6. The Superintendent (or designee) may establish appropriate pay grade/classification for categories of employees or individual employees based on relevant data (competitive rates, market requirements, specific qualifications, etc.).

Office Support • Custodial • Maintenance Personnel Teacher Assistants • Child Nutrition Assistants • Bus Drivers

- 7. Newly hired **Office Support**, **Custodial** and **Maintenance** employees must be on the payroll at least 60% of the required workdays in order to qualify for a year's experience. Newly hired **Teacher Assistants**, **Child Nutrition and Bus Driver** employees must be on the payroll at least 6 full months in order to qualify for a year's experience.
- 8. Experience credit for newly employed personnel will be granted as follows: Note: Market conditions may result in some deviation to experience credits.

Years in other state school systems in an equivalent position

Years of Credit

Step for step credit upon review by Human Resources.

Years of directly related experience outside public schools and other ABSS positions

Years of Credit

Half credit for steps upon review by Human Resources.

Alamance-Burlington School System Salary Scale Placement (continued)

Non-Certified School Nurses

Effective June 1, 2006, all non-nationally certified nurses with a bachelor's degree will be placed at grade 68, step 17, regardless of prior experience. All non-nationally certified nurses with a master's degree will be placed at grade 68MSTR, step 17, regardless of prior experience. Upon completion of national certification as a school nurse, salary will be established on the G-teacher schedule at the appropriate step based on verified related experience.

Certified Supplemental Pay

Certified teaching staff, school nurses, occupational therapists, physical therapists, psychologists and speech receives a staggered local supplement, <u>based on consecutive number of years with ABSS</u>. This staggered percent supplement replaces the percentages in FY 2020, as follows: 0-5 years = 10.00%, 6-10 years = 11.00% and 11+ years = 12.00%.

Child Nutrition Managers

- 1. A newly hired employee must be on the payroll at least 6 full months in order to qualify for a year's experience.
- 2. Placement on the appropriate salary schedule is based on prior work experience.
- 3. Manager's pay grade is determined by the Average Daily Membership (ADM) of the school and other duties as specified:

<u>Pay Grade</u>	School ADM
57	0 400
58	401 – 700
59	701 – up
62	Managing 2 or more schools
63	Managing 2 or more schools and outside catering site

4. Additional compensation of 5% of base salary for a two or four year degree in Food Services Management or related area from an accredited college or university and 2% of base salary for a diploma in Food Service Management or related area from an accredited college or university or community college.

Alamance-Burlington School System Non-Certified Employee Paygrades

The governing provisions used to establish the salary grade of all employees are those set forth in the provisions of the State Salary Schedule. The salary grades and ranges established by the North Carolina State Board of Education provide only a minimum and maximum salary amount; the local Board of Education is responsible for establishing provisions used to determine the placement of individuals.

Pay Grade	Position	
51	Custodian Bus Driver	
55	Custodial Building Manager Food Service Assistant	
56	Teacher Assistant Pre-K Assistant ISS Assistant – Middle School Zonal Bus Coordinator	
57	Office Personnel II Child Nutrition Office Support General Office Support Food Service Manager I (ADM 0-400) ISS Assistant – High School	
58	Office Personnel IIA School Receptionist Middle School Guidance Secretary Exceptional Children Assistant Food Service Manager II (ADM 401-700)	
59	Office Personnel III High School Guidance Secretary Fixed Assets Clerk Maintenance III Grounds Equipment Mechanic/Operator Carpenter, HVAC, Plumber, Electrical Helper Transportation Mechanic I Food Service Manager III (ADM 701-up)	Grounds Crew Delivery/Warehouse/Courier

Alamance-Burlington School System Non-Certified Employee Paygrades (continued)

Pay Grade	Position	
60	Director's Office Support Alternative/Vocational Center Office Support	
61	Office Personnel IV Lead Elementary Office Support Elementary Data Manager Central Office Receptionist Maintenance III Painter TIMS Operator	
62	Lead Middle School Office Support Middle School Data Manager ESL Data Manager Warehouse Accounts Payable Specialist Food Services Accounts Payable Maintenance IV Locksmith Plumber Roofer/Mason Food Services Manager managing two or more schools	Cabinetmaker, Carpenter HVAC Technician Electrician
63	Office Personnel V Executive Director's Office Support High School Data Manager Lead TIMS Operator Transportation Mechanic II Food Services Manager managing two or more schools	and outside catering site
64	Translator Technology Technician I Human Resources Specialist Leave/Disability Specialist Payroll Specialist Benefits Specialist School Administration Specialist Lead High School Office Support Food Services Analyst	

Alamance-Burlington School System Non-Certified Employee Paygrades (continued)

Pay Grade	Position	
65	Office Personnel V Assistant Superintendent's Office Support EC Finance Specialist Student Information Specialist Maintenance V OSHA/Paint Crew Foreman HVAC Controls Technician Transportation Mechanic III/Parts Foreman Lead Custodian	Wastewater Technician ** AV Repair Technician
66	Maintenance V Buildings & Grounds Foreman Electrical/Plumber Foreman ** HVAC Foreman **	
67	Accounting/Information Manager Hearing Impaired Interpreter Drop Out Prevention Specialist (Degreed) Transportation Specialist Transportation Foreman/Shop Foreman	
68	Nurse (Without National Certification)** Technology Technician II	
68MSTR	Nurse with Graduate Degree (Without National Certification	ation)**
69	Hearing Impaired Interpreter (With Interpreting Degree)	
70	Superintendent Office Support Payroll Manager HVAC/Energy Management Technician	
72	LAN Technician Technology Technician III	
74	Online Facilitator	
78	Occupational Therapist ** Physical Therapist ** Systems Engineer	
78G	Occupational Therapist (Graduate Degree) ** Physical Therapist (Graduate Degree) **	
	** License/Certification Required	

		HOURLY	MONTHLY
GRADE	<u>STEP</u>	<u>RATE</u>	<u>SALARY</u>
51	0	11.76	2,038.50
51	1-5	12.02	2,082.70
51	6-9	12.03	2,085.20
51	10-15	12.04	2,086.93
51	16-20	12.05	2,088.67
51	21	12.06	2,090.40
51	22	12.12	2,100.38
51	23	12.28	2,128.67
51	24	12.28	2,128.67
51	25	12.29	2,130.44
51	26	12.31	2,133.98
51	27	12.32	2,135.74
51	28	12.34	2,139.28
51	29	12.36	2,142.82
51	30	12.45	2,158.73
51	31	12.54	2,172.87
51	32	12.70	2,201.16
51	33	12.81	2,220.61
51	34	12.87	2,231.22
51	35+	13.05	2,261.27

		HOURLY	MONTHLY
GRADE	STEP	<u>RATE</u>	SALARY
55	0	11.86	2,056.18
55	1-5	12.11	2,098.62
55	6-9	12.12	2,100.80
55	10	12.13	2,102.53
55	11	12.15	2,105.69
55	12	12.20	2,114.53
55	13	12.31	2,133.98
55	14	12.34	2,139.28
55	15	12.37	2,144.58
55	16	12.40	2,149.89
55	17	12.56	2,176.41
55	18	12.66	2,194.09
55	19	12.75	2,210.00
55	20	12.88	2,232.98
55	21	13.04	2,259.50
55	22	13.18	2,284.26
55	23	13.34	2,312.54
55	24	13.40	2,323.15
55	25	13.54	2,346.14
55	26	13.69	2,372.66
55	27	13.82	2,395.64
55	28	13.96	2,420.39
55	29	14.11	2,445.14
55	30	14.25	2,469.90
55	31	14.40	2,496.42
55	32	14.55	2,521.17
55	33	14.70	2,547.69
55	34	14.85	2,574.21
55	35+	15.01	2,602.50

		HOURLY	MONTHLY
GRADE	<u>STEP</u>	<u>RATE</u>	<u>SALARY</u>
56	0	12.22	2,118.13
56	1-5	12.55	2,175.33
56	6-10	12.56	2,177.07
56	11-15	12.57	2,178.80
56	16-19	12.58	2,180.53
56	20	12.59	2,182.27
56	21	12.68	2,197.87
56	22	12.81	2,220.40
56	23	12.94	2,242.93
56	24	13.07	2,265.47
56	25	13.20	2,288.00
56	26	13.33	2,310.53
56	27	13.46	2,333.07
56	28	13.61	2,359.07
56	29	13.75	2,383.33
56	30	13.88	2,405.87
56	31	14.03	2,431.87
56	32	14.17	2,456.13
56	33	14.32	2,482.13
56	34	14.47	2,508.13
56	35+	14.62	2,534.13

		HOURLY	MONTHLY
GRADE	STEP	<u>RATE</u>	<u>SALARY</u>
57	0	12.55	2,175.33
57	1-5	12.79	2,217.07
57	6-9	12.80	2,218.67
57	10	12.81	2,220.61
57	11	12.83	2,224.14
57	12	12.87	2,231.22
57	13	12.99	2,252.43
57	14	13.02	2,255.97
57	15	13.04	2,259.50
57	16	13.06	2,263.04
57	17	13.25	2,296.63
57	18	13.44	2,330.22
57	19	13.67	2,369.12
57	20	13.71	2,376.19
57	21	13.92	2,413.32
57	22	14.10	2,443.38
57	23	14.28	2,475.20
57	24	14.33	2,484.04
57	25	14.39	2,494.65
57	26	14.42	2,499.95
57	27	14.48	2,510.56
57	28	14.59	2,528.24
57	29	14.81	2,567.14
57	30	14.89	2,581.28
57	31	15.02	2,604.26
57	32	15.23	2,639.62
57	33	15.37	2,664.38
57	34	15.47	2,682.06
57	35+	15.74	2,728.02

		HOURLY	MONTHLY
GRADE	STEP	<u>RATE</u>	SALARY
58	0	12.77	2,213.47
58	1-5	13.02	2,255.97
58	6-9	13.03	2,258.53
58	10	13.04	2,259.50
58	11	13.07	2,264.81
58	12	13.11	2,271.88
58	13	13.22	2,291.33
58	14	13.25	2,296.63
58	15	13.26	2,298.40
58	16	13.29	2,303.70
58	17	13.48	2,337.30
58	18	13.69	2,372.66
58	19	13.91	2,411.55
58	20	14.11	2,445.14
58	21	14.34	2,485.81
58	22	14.50	2,514.10
58	23	14.69	2,545.92
58	24	14.71	2,549.46
58	25	14.75	2,556.53
58	26	14.78	2,561.83
58	27	14.81	2,567.14
58	28	14.89	2,581.28
58	29	15.02	2,604.26
58	30	15.23	2,639.62
58	31	15.37	2,664.38
58	32	15.47	2,682.06
58	33	15.74	2,728.02
58	34	15.87	2,751.01
58	35+	15.99	2,772.22

		HOURLY	MONTHLY
GRADE	STEP	<u>RATE</u>	SALARY
59	0	13.31	2,307.52
59	1-5	13.42	2,326.69
59	6-9	13.43	2,327.87
59	10	13.44	2,330.22
59	11	13.46	2,333.76
59	12	13.50	2,340.83
59	13	13.63	2,362.05
59	14	13.66	2,367.35
59	15	13.68	2,370.89
59	16	13.70	2,374.42
59	17	13.91	2,411.55
59	18	14.12	2,446.91
59	19	14.34	2,485.81
59	20	14.57	2,524.70
59	21	14.78	2,561.83
59	22	14.99	2,598.96
59	23	15.18	2,630.78
59	24	15.23	2,639.62
59	25	15.26	2,644.93
59	26	15.31	2,653.77
59	27	15.37	2,664.38
59	28	15.47	2,682.06
59	29	15.74	2,728.02
59	30	15.87	2,751.01
59	31	15.99	2,772.22
59	32	16.22	2,811.12
59	33	16.39	2,841.18
59	34	16.52	2,864.16
59	35+	16.78	2,908.36

		HOURLY	MONTHLY
GRADE	<u>STEP</u>	<u>RATE</u>	SALARY
60	0	13.50	2,339.14
60	1-5	13.74	2,381.64
60	6-9	13.75	2,383.41
60	10	13.76	2,385.17
60	11	13.80	2,392.25
60	12	13.84	2,399.32
60	13	13.94	2,417.00
60	14	14.12	2,447.05
60	15	14.31	2,479.76
60	16	14.49	2,511.34
60	17	14.64	2,537.66
60	18	14.78	2,562.22
60	19	14.93	2,588.54
60	20	15.10	2,616.78
60	21	15.25	2,643.30
60	22	15.41	2,671.59
60	23	15.57	2,698.11
60	24	15.74	2,728.89
60	25	15.91	2,756.96
60	26	16.07	2,785.03
60	27	16.25	2,816.61
60	28	16.42	2,846.62
60	29	16.59	2,874.91
60	30	16.77	2,906.73
60	31	16.96	2,939.42
60	32	17.14	2,970.38
60	33	17.33	3,004.33
60	34	17.50	3,034.15
60	35+	17.71	3,069.24

		HOURLY	MONTHLY
GRADE	<u>STEP</u>	<u>RATE</u>	SALARY
61	0	13.96	2,419.72
61	1-5	14.21	2,462.22
61	6-9	14.22	2,463.97
61	10	14.23	2,465.73
61	11	14.26	2,470.99
61	12	14.30	2,478.01
61	13	14.41	2,497.31
61	14	14.44	2,502.57
61	15	14.46	2,506.08
61	16	14.49	2,511.34
61	17	14.70	2,548.18
61	18	14.93	2,588.54
61	19	15.16	2,627.13
61	20	15.40	2,669.24
61	21	15.63	2,709.59
61	22	15.87	2,749.94
61	23	16.07	2,785.03
61	24	16.17	2,802.57
61	25	16.23	2,813.10
61	26	16.32	2,828.89
61	27	16.33	2,830.64
61	28	16.44	2,849.94
61	29	16.65	2,886.78
61	30	16.80	2,911.35
61	31	17.01	2,948.19
61	32	17.20	2,981.52
61	33	17.36	3,009.59
61	34	17.52	3,037.66
61	35+	17.79	3,083.28

		HOURLY	MONTHLY
GRADE	<u>STEP</u>	<u>RATE</u>	SALARY
62	0	14.42	2,498.66
62	1-5	14.66	2,541.17
62	6-9	14.67	2,542.92
62	10	14.68	2,544.68
62	11	14.70	2,548.18
62	12	14.74	2,555.20
62	13	14.84	2,572.75
62	14	15.07	2,611.34
62	15	15.28	2,648.19
62	16	15.47	2,681.52
62	17	15.64	2,711.34
62	18	15.80	2,739.41
62	19	15.96	2,765.73
62	20	16.13	2,795.55
62	21	16.31	2,827.13
62	22	16.47	2,855.20
62	23	16.65	2,886.78
62	24	16.83	2,916.61
62	25	17.02	2,949.94
62	26	17.20	2,981.52
62	27	17.38	3,013.10
62	28	17.57	3,044.68
62	29	17.77	3,079.77
62	30	17.95	3,111.35
62	31	18.14	3,144.68
62	32	18.35	3,181.52
62	33	18.55	3,214.86
62	34	18.75	3,249.94
62	35+	18.96	3,286.79

		HOURLY	MONTHLY
GRADE	<u>STEP</u>	<u>RATE</u>	SALARY
63	0	14.90	2,582.87
63	1-5	15.15	2,625.38
63	6-9	15.16	2,627.13
63	10	15.17	2,628.89
63	11	15.19	2,632.40
63	12	15.24	2,641.17
63	13	15.35	2,660.47
63	14	15.54	2,693.80
63	15	15.74	2,728.89
63	16	16.00	2,772.75
63	17	16.17	2,802.57
63	18	16.34	2,832.40
63	19	16.50	2,860.47
63	20	16.68	2,892.05
63	21	16.86	2,921.87
63	22	17.05	2,955.21
63	23	17.23	2,986.78
63	24	17.41	3,018.36
63	25	17.59	3,048.19
63	26	17.79	3,083.28
63	27	17.98	3,116.61
63	28	18.18	3,151.70
63	29	18.39	3,186.79
63	30	18.59	3,221.87
63	31	18.78	3,255.21
63	32	18.99	3,292.05
63	33	19.22	3,330.65
63	34	19.42	3,365.73
63	35+	19.62	3,400.82

		HOURLY	MONTHLY
GRADE	STEP	<u>RATE</u>	SALARY
64	0	15.39	2,667.09
64	1-5	15.63	2,709.59
64	6-9	15.64	2,711.34
64	10	15.65	2,713.10
64	11	15.69	2,720.12
64	12	15.73	2,727.13
64	13	15.84	2,746.43
64	14	15.87	2,749.94
64	15	15.90	2,755.20
64	16	16.07	2,785.03
64	17	16.25	2,816.61
64	18	16.42	2,846.43
64	19	16.68	2,892.05
64	20	16.96	2,939.42
64	21	17.23	2,986.78
64	22	17.44	3,023.63
64	23	17.71	3,069.24
64	24	17.76	3,078.01
64	25	17.82	3,088.54
64	26	17.89	3,100.82
64	27	18.03	3,125.38
64	28	18.19	3,153.45
64	29	18.44	3,195.56
64	30	18.63	3,228.89
64	31	18.82	3,262.23
64	32	19.00	3,293.80
64	33	19.36	3,355.21
64	34	19.52	3,383.28
64	35+	19.64	3,404.33

		HOURLY	MONTHLY
GRADE	STEP	<u>RATE</u>	SALARY
65	0	15.87	2,751.08
65	1-5	16.12	2,793.58
65	6-9	16.13	2,795.35
65	10	16.14	2,797.12
65	11	16.16	2,800.65
65	12	16.20	2,807.73
65	13	16.31	2,827.17
65	14	16.34	2,832.48
65	15	16.37	2,837.78
65	16	16.39	2,841.32
65	17	16.65	2,885.52
65	18	16.90	2,929.72
65	19	17.20	2,980.99
65	20	17.47	3,028.73
65	21	17.75	3,076.46
65	22	17.95	3,111.82
65	23	18.22	3,157.79
65	24	18.23	3,159.56
65	25	18.25	3,163.09
65	26	18.28	3,168.40
65	27	18.30	3,171.93
65	28	18.48	3,203.76
65	29	18.64	3,230.28
65	30	18.94	3,283.32
65	31	19.11	3,311.61
65	32	19.29	3,343.43
65	33	19.61	3,398.24
65	34	20.35	3,527.30
65	35+	20.53	3,559.13

		HOURLY	MONTHLY
GRADE	<u>STEP</u>	<u>RATE</u>	SALARY
66	0	16.42	2,846.55
66	1-5	16.67	2,889.05
66	6-9	16.68	2,890.82
66	10	16.69	2,892.59
66	11	16.72	2,897.89
66	12	16.77	2,906.73
66	13	16.87	2,924.41
66	14	17.13	2,968.61
66	15	17.37	3,011.05
66	16	17.63	3,055.25
66	17	17.83	3,090.61
66	18	18.01	3,122.43
66	19	18.21	3,156.02
66	20	18.40	3,189.61
66	21	18.61	3,224.97
66	22	18.81	3,260.33
66	23	19.01	3,295.69
66	24	19.24	3,334.59
66	25	19.45	3,371.72
66	26	19.66	3,407.08
66	27	19.89	3,447.74
66	28	20.09	3,483.10
66	29	20.33	3,523.77
66	30	20.56	3,564.43
66	31	20.79	3,603.33
66	32	21.02	3,643.99
66	33	21.27	3,686.42
66	34	21.50	3,727.09
66	35+	21.75	3,769.52

	ı		
		HOURLY	MONTHLY
<u>GRADE</u>	<u>STEP</u>	<u>RATE</u>	<u>SALARY</u>
67	0	17.10	2,963.58
67	1-5	17.34	3,006.08
67	6-9	17.35	3,006.96
67	10	17.35	3,007.84
67	11	17.37	3,011.35
67	12	17.42	3,020.12
67	13	17.54	3,039.42
67	14	17.56	3,042.93
67	15	17.59	3,048.19
67	16	17.74	3,074.50
67	17	17.89	3,100.82
67	18	18.18	3,151.70
67	19	18.49	3,204.33
67	20	18.77	3,253.45
67	21	19.08	3,307.84
67	22	19.41	3,363.98
67	23	19.70	3,414.86
67	24	19.73	3,420.12
67	25	19.78	3,428.89
67	26	19.86	3,442.93
67	27	19.98	3,463.98
67	28	20.22	3,504.33
67	29	20.40	3,535.91
67	30	20.78	3,602.58
67	31	20.98	3,635.91
67	32	21.13	3,662.23
67	33	21.33	3,697.32
67	34	21.60	3,744.69
67	35+	21.89	3,793.81

USE THIS FOR OT ASST

		HOURLY	MONTHLY
GRADE	STEP	<u>RATE</u>	SALARY
68	0	17.69	3,067.09
68	1-5	17.94	3,109.59
68	6-9	17.95	3,111.35
68	10	17.96	3,113.10
68	11	17.99	3,118.36
68	12	18.03	3,125.38
68	13	18.14	3,144.68
68	14	18.17	3,149.94
68	15	18.20	3,155.21
68	16	18.21	3,156.96
68	17	18.52	3,209.59
68	18	18.82	3,262.23
68	19	19.14	3,318.37
68	20	19.44	3,369.24
68	21	19.76	3,425.38
68	22	19.98	3,463.98
68	23	20.27	3,513.10
68	24	20.30	3,518.37
68	25	20.33	3,523.63
68	26	20.34	3,525.39
68	27	20.40	3,535.91
68	28	20.58	3,567.49
68	29	20.74	3,595.56
68	30	21.13	3,662.23
68	31	21.89	3,793.81
68	32	22.09	3,828.90
68	33	22.32	3,869.25
68	34	22.74	3,941.18
68	35+	22.95	3,978.02

		HOURLY	MONTHLY
GRADE	<u>STEP</u>	<u>RATE</u>	SALARY
70	0	19.01	3,295.62
70	1-5	19.26	3,338.13
70	6-9	19.27	3,339.89
70	10	19.28	3,341.66
70	11	19.31	3,346.97
70	12	19.35	3,354.04
70	13	19.46	3,373.49
70	14	19.48	3,377.02
70	15	19.50	3,380.56
70	16	19.52	3,384.09
70	17	19.85	3,440.67
70	18	20.19	3,499.01
70	19	20.53	3,559.13
70	20	20.87	3,617.47
70	21	21.22	3,677.58
70	22	21.48	3,723.55
70	23	21.80	3,778.36
70	24	21.85	3,787.20
70	25	21.93	3,801.34
70	26	21.99	3,811.95
70	27	22.05	3,822.56
70	28	22.27	3,859.69
70	29	22.69	3,932.17
70	30	22.91	3,971.07
70	31	23.10	4,004.66
70	32	23.54	4,080.69
70	33	23.76	4,117.81
70	34	23.98	4,156.71
70	35+	24.41	4,230.97

		HOURLY	MONTHLY
GRADE	<u>STEP</u>	<u>RATE</u>	SALARY
72	0	20.45	3,544.91
72	1-5	20.70	3,587.41
72	6-9	20.71	3,589.18
72	10	20.72	3,590.95
72	11	20.75	3,596.25
72	12	20.79	3,603.33
72	13	20.90	3,622.77
72	14	20.92	3,626.31
72	15	20.95	3,631.61
72	16	20.96	3,633.38
72	17	21.32	3,695.26
72	18	21.68	3,757.14
72	19	22.05	3,822.56
72	20	22.42	3,886.21
72	21	22.81	3,953.39
72	22	23.08	4,001.13
72	23	23.46	4,066.54
72	24	23.51	4,075.38
72	25	23.58	4,087.76
72	26	23.64	4,098.37
72	27	23.76	4,117.81
72	28	23.98	4,156.71
72	29	24.41	4,230.97
72	30	24.62	4,268.09
72	31	24.89	4,314.06
72	32	25.32	4,388.32
72	33	25.57	4,432.52
72	34	25.86	4,482.02
72	35+	26.36	4,568.65

		HOURLY	MONTHLY
GRADE	STEP	RATE	SALARY
74	0	22.08	3,827.24
74	1-5	22.25	3,855.94
74	6-9	22.41	3,884.86
74	10	22.58	3,914.00
74	11	22.75	3,943.36
74	12	22.92	3,972.93
74	13	23.09	4,002.73
74	14	23.27	4,032.75
74	15	23.44	4,062.99
74	16	23.62	4,093.47
74	17	23.79	4,124.17
74	18	23.97	4,155.10
74	19	24.15	4,186.26
74	20	24.33	4,217.66
74	21	24.52	4,249.29
74	22	24.70	4,281.16
74	23	24.88	4,313.27
74	24	25.07	4,345.62
74	25	25.26	4,378.21
74	26	25.45	4,411.05
74	27	25.64	4,444.13
74	28	25.83	4,477.46
74	29	26.03	4,511.04
74	30	26.22	4,544.88
74	31	26.42	4,578.96
74	32	26.62	4,613.30
74	33	26.81	4,647.90
74	34	27.02	4,682.76
74	35+	27.22	4,717.88

ALAMANCE-BURLINGTON SCHOOL SYSTEM PROPOSED 2020-2021 Salary Schedule for Non-Certified Employees

		HOURLY	MONTHLY
GRADE	<u>STEP</u>	<u>RATE</u>	SALARY
76	0	23.98	4,156.57
76	1-5	24.23	4,199.07
76	6-9	24.24	4,201.71
76	10	24.25	4,203.02
76	11	24.26	4,204.34
76	12	24.72	4,285.04
76	13	24.85	4,307.85
76	14	24.97	4,328.90
76	15	25.29	4,383.29
76	16	25.45	4,411.36
76	17	25.80	4,472.76
76	18	26.16	4,534.17
76	19	26.56	4,604.34
76	20	26.93	4,667.50
76	21	27.32	4,735.92
76	22	27.71	4,802.59
76	23	28.10	4,871.01
76	24	28.50	4,939.43
76	25	28.93	5,014.87
76	26	29.35	5,086.80
76	27	29.78	5,162.24
76	28	30.19	5,232.42
76	29	30.60	5,304.35
76	30	31.08	5,386.80
76	31	31.50	5,460.49
76	32	31.96	5,539.40
76	33	32.42	5,620.14
76	34	32.90	5,702.60
76	35+	33.38	5,785.05

ALAMANCE-BURLINGTON SCHOOL SYSTEM School Year 2020-2021 State Salary Schedule for EC Teacher Assistants

		HOURLY	MONTHLY
GRADE	<u>STEP</u>	<u>RATE</u>	SALARY
58	0	12.77	2,213.47
58	1-5	13.02	2,255.97
58	6-9	13.03	2,258.53
58	10	13.04	2,259.50
58	11	13.07	2,264.81
58	12	13.11	2,271.88
58	13	13.22	2,291.33
58	14	13.25	2,296.63
58	15	13.26	2,298.40
58	16	13.29	2,303.70
58	17	13.48	2,337.30
58	18	13.69	2,372.66
58	19	13.91	2,411.55
58	20	14.11	2,445.14
58	21	14.34	2,485.81
58	22	14.50	2,514.10
58	23	14.69	2,545.92
58	24	14.71	2,549.46
58	25	14.75	2,556.53
58	26	14.78	2,561.83
58	27	14.81	2,567.14
58	28	14.89	2,581.28
58	29	15.02	2,604.26
58	30	15.23	2,639.62
58	31	15.37	2,664.38
58	32	15.47	2,682.06
58	33	15.74	2,728.02
58	34	15.87	2,751.01
58	35+	15.99	2,772.22

SCHOOL SYSTEM School Year 2020-2021 State Salary Schedule for Nurse

		HOURLY	MONTHLY
GRADE	<u>STEP</u>	<u>RATE</u>	<u>SALARY</u>
68	0	17.69	3,067.09
68	1	17.94	3,109.59
68	2	17.94	3,109.59
68	3	17.94	3,109.59
68	4	17.94	3,109.59
68	5	17.94	3,109.59
68	6	17.95	3,111.35
68	7	17.95	3,111.35
68	8	17.95	3,111.35
68	9	17.95	3,111.35
68	10	17.96	3,113.10
68	11	17.99	3,118.36
68	12	18.03	3,125.38
68	13	18.14	3,144.68
68	14	18.17	3,149.94
68	15	18.20	3,155.21
68	16	18.21	3,156.96
68	17	18.52	3,209.59
68	18	18.82	3,262.23
68	19	19.14	3,318.37
68	20	19.44	3,369.24
68	21	19.76	3,425.38
68	22	19.98	3,463.98
68	23	20.27	3,513.10
68	24	20.30	3,518.37
68	25	20.33	3,523.63
68	26	20.34	3,525.39
68	27	20.40	3,535.91
68	28	20.17	3,496.52
68	29	20.74	3,595.56
68	30	21.13	3,662.23
68	31	21.89	3,793.81
68	32	22.09	3,828.90
68	33	22.32	3,869.25

		HOURLY	MONTHLY
GRADE	<u>STEP</u>	RATE	SALARY
68MSTR	0	18.56	3,217.09
68MSTR	1	18.81	3,259.59
68MSTR	2	18.81	3,259.59
68MSTR	3	18.81	3,259.59
68MSTR	4	18.81	3,259.59
68MSTR	5	18.81	3,259.59
68MSTR	6	18.82	3,261.35
68MSTR	7	18.82	3,261.35
68MSTR	8	18.82	3,261.35
68MSTR	9	18.82	3,261.35
68MSTR	10	18.83	3,263.10
68MSTR	11	18.86	3,268.36
68MSTR	12	18.90	3,275.38
68MSTR	13	19.01	3,294.68
68MSTR	14	19.04	3,299.94
68MSTR	15	19.07	3,305.21
68MSTR	16	19.08	3,306.96
68MSTR	17	19.38	3,359.59
68MSTR	18	19.69	3,412.23
68MSTR	19	20.01	3,468.37
68MSTR	20	20.30	3,519.24
68MSTR	21	20.63	3,575.38
68MSTR	22	20.85	3,613.98
68MSTR	23	21.13	3,663.10
68MSTR	24	21.16	3,668.37
68MSTR	25	21.19	3,673.63
68MSTR	26	21.20	3,675.39
68MSTR	27	21.26	3,685.91
68MSTR	28	21.04	3,646.52
68MSTR	29	21.61	3,745.56
68MSTR	30	21.99	3,812.23
68MSTR	31	22.75	3,943.81
68MSTR	32	22.96	3,978.90
68MSTR	33	23.19	4,019.25

ALAMANCE-BURLINGTON SCHOOL SYSTEM School Year 2020-2021 State Salary Schedule for HI Interpreters

<u>GRADE</u>	<u>STEP</u>	<u>SALARY</u>	<u>HOURLY</u>
67	0	2,962.05	17.22
67	1-5	3,004.55	17.47
67	6-8	3,014.76	17.53
67	9	3,024.98	17.59
67	10	3,045.56	17.71
67	11	3,066.29	17.83
67	12	3,087.16	17.95
67	13	3,108.17	18.07
67	14	3,129.33	18.19
67	15	3,148.82	18.31
67	16	3,167.20	18.41
67	17	3,185.69	18.52
67	18	3,204.35	18.63
67	19	3,257.38	18.94
67	20	3,307.88	19.23
67	21	3,333.66	19.38
67	22	3,366.15	19.57
67	23	3,398.96	19.76
67	24	3,432.10	19.95
67	25	3,465.57	20.15
67	26	3,499.38	20.35
67	27	3,533.52	20.54
67	28	3,568.01	20.74
67	29	3,602.84	20.95
67	30	3,638.01	21.15
67	31	3,673.54	21.36
67	32	3,709.43	21.57
67	33	3,742.81	21.76
67	34	3,776.50	21.96
67	35+	3,810.49	22.15

GRADE	<u>STEP</u>	<u>SALARY</u>	<u>HOURLY</u>
69	0	3151.96	18.33
69	1-5	3194.46	18.57
69	6-8	3200.68	18.61
69	9	3206.90	18.64
69	10	3219.39	18.72
69	11	3231.92	18.79
69	12	3244.51	18.86
69	13	3257.15	18.94
69	14	3269.84	19.01
69	15	3279.39	19.07
69	16	3291.78	19.14
69	17	3323.85	19.32
69	18	3356.24	19.51
69	19	3388.95	19.70
69	20	3421.99	19.90
69	21	3455.36	20.09
69	22	3489.06	20.29
69	23	3523.10	20.48
69	24	3557.48	20.68
69	25	3592.21	20.88
69	26	3627.28	21.09
69	27	3662.70	21.29
69	28	3698.48	21.50
69	29	3734.61	21.71
69	30	3771.11	21.93
69	31	3807.97	22.14
69	32	3845.20	22.36
69	33	3879.81	22.56
69	34	3914.73	22.76
69	35+	3949.96	22.96

ALAMANCE-BURLINGTON SCHOOL SYSTEM School Year 2020-2021

State Salary Schedule for Bus Drivers and Bus Monitors

		STATE	LOCAL	TOTAL
		HOURLY	HOURLY	HOURLY
GRADE	STEP	RATE	RATE	RATE
BUS/BUSMON	0	14.65	0	14.65
BUS/BUSMON	1	14.71	0	14.71
BUS/BUSMON	2	14.77	0	14.77
BUS/BUSMON	3	14.82	0	14.82
BUS/BUSMON	4	14.88	0	14.88
BUS/BUSMON	5	14.95	0	14.95
BUS/BUSMON	6	15.01	0	15.01
BUS/BUSMON	7	15.06	0	15.06
BUS/BUSMON	8	15.12	0	15.12
BUS/BUSMON	9	15.18	0	15.18
BUS/BUSMON	10	15.24	0	15.24
BUS/BUSMON	11	15.30	0	15.30
BUS/BUSMON	12	15.36	0	15.36
BUS/BUSMON	13	15.43	0	15.43
BUS/BUSMON	14	15.49	0	15.49
BUS/BUSMON	15	15.55	0	15.55
BUS/BUSMON	16	15.61	0	15.61
BUS/BUSMON	17	15.67	0	15.67
BUS/BUSMON	18	15.73	0	15.73
BUS/BUSMON	19	15.79	0	15.79
BUS/BUSMON	20	15.85	0	15.85
BUS/BUSMON	21	16.04	0	16.04
BUS/BUSMON	22	16.32	0	16.32
BUS/BUSMON	23	16.58	0	16.58
BUS/BUSMON	24	16.86	0	16.86
BUS/BUSMON	25	17.16	0	17.16
BUS/BUSMON	26	17.45	0.01	17.46
BUS/BUSMON	27	17.45	0.32	17.77
BUS/BUSMON	28	17.45	0.64	18.09
BUS/BUSMON	29	17.45	0.93	18.38
BUS/BUSMON	30	17.45	1.38	18.83
BUS/BUSMON	31	17.45	1.58	19.03
BUS/BUSMON	32	17.45	1.91	19.36
BUS/BUSMON	33	17.45	1.95	19.40
BUS/BUSMON	34	17.45	1.99	19.44
BUS/BUSMON	35	17.45	2.04	19.49

School Year 2020-2021

Substitute Teacher Salary Schedule

Substitute teachers holding teaching certificates are paid a daily rate of \$103.00.

Substitute teachers who are not certificated but who have completed Effective Teacher Training (ETT) are paid \$86.50 per day.

Substitutes for Exceptional Children or PreK teacher assistants are paid \$86.50 per day. Substitutes for teacher assistants may only be employed with prior approval from the central office and are intended to be placed in Exceptional Children or Pre-Kindergarten classrooms.

A teacher assistant who substitutes for an absent classroom teacher in the same school is paid the daily rate of an entry level teacher, \$162.79. However, a day's pay is docked from the teacher assistant's pay.

ALAMANCE BURLINGTON SCHOOL SYSTEM 2020-2021

Salary Schedule for Daycare Employees

		HOURLY	Summer
<u>GRADE</u>	<u>STEP</u>	<u>RATE</u>	<u>Rate</u>
Director	ALL	15.00	15.00

		HOURLY	Summer
GRADE	<u>STEP</u>	<u>RATE</u>	<u>Rate</u>
DC Staff	0	9.00	11.79
DC Staff	1-5	9.25	11.79
DC Staff	6	9.50	11.79
DC Staff	7	9.75	11.79
DC Staff	8	10.00	11.79
DC Staff	9	10.25	11.79
DC Staff	10	10.50	11.79
DC Staff	11	10.75	11.79
DC Staff	12	10.90	11.79
DC Staff	13	11.00	11.79
DC Staff	14	11.25	11.79
DC Staff	15	11.40	11.79
DC Staff	16+	11.55	11.79

		HOURLY	Summer
<u>GRADE</u>	<u>STEP</u>	<u>RATE</u>	<u>Rate</u>
DC Cert	ALL	15.00	15.00

The Students We Serve

Gender

	2020-2021	2021-2022
Male	11,044	11,389
Female ¹	10,529	10,678

Ethnicity

	The state of the s
2020-2021	2021-2022
8,586	8,465
5,211	5,451
6,097	6,348
363	356
66	59
1,250	1,388
	8,586 5,211 6,097 363

Level

	2020-2021	2021-2022
Elementary		
School	9,563	9,740
Middle School	5,361	5,434
High School	6,649	6,893

Total Enrollment of 22,067 across 37 schools

Alamance County

BOARD OF COMMISSIONERS 124 West Elm Street Graham, North Carolina 27253-2865 Tel. (336) 228-1312 FAX (336) 570-6360

April 5, 2022

To Whom It May Concern:

Alamance County anticipates continued growth within the school system and at its April 4, 2022 meeting, in a 3-2 vote the Board of County Commissioners supports an additional charter school in Alamance County.

Thank you for your consideration of this request.

Sincerely,

John Paisley,

Chair Alamance County Board of Commissioners

United Global Academy

Appendix B: Curriculum Outline per Grade Span



Cambridge IGCSE standards and GCSE

Summary

- We commit in our Code of Practice to align the standard of Cambridge IGCSE with equivalent qualifications taken in England; we do this using statistical evidence and comparability studies.
- Work by external bodies shows Cambridge IGCSE to be comparable to qualifications taken by UK schools; Ofqual has regulated Cambridge IGCSE as Level 1/Level 2 qualifications; which is also the level of GCSEs.
- Cambridge IGCSE is high quality preparation for post-16 study
- Cambridge IGCSE qualifications were a benchmark for the design of the reformed GCSE in England.
- The content of reformed GCSE and Cambridge IGCSE syllabuses has extensive overlap, though Cambridge IGCSE will remain distinct from GCSE, offering an international choice to schools around the world.

Cambridge IGCSE® is the world's most popular international qualification for 14 to 16 year olds. It is recognised by leading universities and employers worldwide, and is an international passport to progression and success. Developed over 30 years ago, it is tried, tested and trusted by schools worldwide.

This note explains how Cambridge Assessment International Education maintains the standard of Cambridge IGCSE. IGCSE® is a registered trademark of Cambridge Assessment International Education.

Our commitment

Our Code of Practice¹ states: "The grading process will maintain the awarding standard of a syllabus from one year to the next, subject to the need for alignment with any equivalent qualification taken in England, and paying due consideration to the need for comparability with different subjects in the same qualification."

This commitment means we align Cambridge IGCSE awarding standards to those of GCSEs offered in England.

How we achieve this

We use several well-established methods to ensure that we meet our commitment.

¹ Cambridge Assessment International Education, "Code of Practice", 2017.

Each year we look at the following statistical and judgemental evidence on the alignment of Cambridge IGCSE and GCSE standards when we are setting the grade boundaries for Cambridge IGCSE.

- 1. We analyse GCSE-Cambridge IGCSE subject pairs these look at the previous year's candidates who took a combination of a Cambridge IGCSE in one subject and a GCSE in another, to see whether they performed better in one than the other. Individual candidates of course often perform better in one subject than another, but over a large population of candidates we can expect to see a close alignment of aggregate performance across any pair of subjects. When a range of GCSE subjects is considered, this tells us whether the Cambridge IGCSE is properly aligned to GCSE standards, or whether the standard needs a minor correction.
- 2. We look at post-award screening data this is the method used by GCSE boards to show whether one board's exams are slightly easier or harder than the others, so that, if any discrepancy is found, it can be corrected in the next year. We use the same method to check that Cambridge IGCSE standards are properly aligned to those of the GCSE boards.
- 3. We conduct judgemental exercises to compare Cambridge IGCSE and GCSE standards. We use the professional expertise of examiners to review candidates' scripts at key grade thresholds.

We keep the alignment of standards under continual review, and, as is common practice across awarding organisations, we make fine adjustments if there is evidence of any divergence of standards in either direction.

Looking ahead, we will continue to undertake this analysis to ensure standards between GCSE and Cambridge IGCSE remain aligned.

Recognition

UK NARIC, the UK's national agency for the recognition and comparison of international qualifications and skills, has found that the Cambridge IGCSE can be considered of a comparable level to the reformed GCSE in England, Wales and Northern Ireland.² <u>Further information can be found on our website</u>.

In the last decade, while the UK Government was encouraging its state schools to use international GCSEs, Ofqual has regulated many Cambridge IGCSEs as Level 1/Level 2 qualifications, which is also the level of GCSEs³.

Many high-performing schools worldwide use Cambridge IGCSE as part of their curriculum. They find Cambridge IGCSEs to be excellent preparation for advanced study and higher education.

Universities in the UK are used to seeing IGCSEs as part of portfolios of applications offered by international applicants. <u>Many have supplied statements</u> assuring equal recognition of reformed GCSE and Cambridge IGCSE.

² The National Recognition Information Centre for the United Kingdom, "Benchmarking Cambridge IGCSE in the Context of the UK Education System", 2016. A further study was completed in 2019.

³ The Office of Qualifications and Examinations Regulation (Ofqual), "Register of Regulated Qualifications" https://register.ofqual.gov.uk/ and "What qualification levels mean" https://www.gov.uk/what-different-qualification-levels-mean/list-of-qualification-levels

Schools' choice

Schools tell us that they choose to offer Cambridge IGCSE on the strengths of the syllabus content, and how it prepares students well for post-16 study.

The content of reformed GCSE and Cambridge IGCSE syllabuses have extensive overlap. Cambridge IGCSE will continue to contain features unique to its syllabuses so as to offer meaningful choice to schools and learners.

The vast majority of our UK schools offer a mixed economy of GCSE and Cambridge IGCSE, which suggests that in many cases, departmental heads select the syllabus that they favour based on educational considerations, including how well it prepares students for post-16 study.

Independent schools in the UK using Cambridge IGCSE are in good company. Beyond the UK, Cambridge IGCSE continues to be the leading international qualification in its class, with almost 750,000 entries in 2017/18, a 7% increase on the previous year. It is used by almost 5000 schools in over 145 countries.

The UK government brought GCSEs closer to Cambridge IGCSEs

Over the years, we have maintained Cambridge IGCSE as a rigorous examination. The reformed GCSE in England, introduced over three years from 2017, now reflects good practice already within Cambridge IGCSE; and indeed the standards and quality of Cambridge IGCSE qualifications were a benchmark for the design of the reformed GCSE. Reformed GCSEs have adopted a linear model – Cambridge IGCSEs have always been linear, allowing for a holistic approach to teaching and assessment and allowing more time for teaching and learning, with only one set of examinations at the end of the course.

"...[we are] learning from best international practice and I would encourage all schools to consider how the IGCSE might be an appropriate preparation for the changes that we hope to introduce." Secretary of State for Education, 17 September 2012

Awarding standards for GCSE have not changed, <u>as confirmed by Government Ministers</u> and the Chief Regulator at the point of introduction of the GCSE reforms.

Even though new GCSEs contain broader and more challenging content and questions than before – bringing them closer to the demands of Cambridge IGCSE content⁴ – exam boards allow for this in the awarding process. In terms of awarding standards, the pre-reform GCSEs, the reformed GCSEs and Cambridge IGCSEs remain very closely aligned.

⁴ Ofqual's 2015 study, "A Comparison of Actual and Expected Difficulty, and Assessment of Problem Solving in GCSE Maths", page 20, observed that "Current GCSEs are judged to be of lower expected difficulty than similar international assessments [including Cambridge IGCSE mathematics]". In general, the expected difficulty of the reformed, higher tier GCSE sample assessments is more in line with similar international assessments [including Cambridge IGCSE mathematics] than the current GCSE papers.

United Global Academy

Appendix D: Yearly Academic Calendar

Tentative school calendar:

Teacher workdays August 1-August 11, 2023

School opens August 14

Columbus Day holiday October 9

Thanksgiving holiday November 23,24

Christmas break December 22-31

New Year's day January 1, 2024

Return to school day January 2

Martin Luther King holiday January 22

President's day February 19

Spring break April 1-5

Memorial Day May 27

Last day of school June 7

Our teacher year will start on August 1 but the students will start twelve days later. This arrangement allows up to 10 days of staff orientation and training before the students arrive. As this is a new school with new staff, it will also provide opportunities for staff to get to know each other. The principal will work with parents to determine if any changes are needed.

Board Member Name

WILL BOSLEY LOUISE COLE CHERYL HODGE PETER MORCOMBE **Board Title**

CHAIR DEPUTY CHAIR TREASURER SECRETARY <u>County of Residence</u> <u>Current Occupation</u>

ALAMANCE ADMINISTRATOR

DURHAM REALTOR

ALAMANCE ADMINISTRATOR

ALAMANCE RETIRED

Past or Present Professional Licenses Held

Any disciplinary action taken against any of these professional licenses?

Overall Budget

SUMMARY	Logic	Year 1	Year 2	Year 3	Year 4	Year 5
Total Personnel	J	\$ 2,151,865.00	\$ 2,337,861.00	\$ 2,558,072.00	\$ 2,747,682.00	\$ 2,913,480.00
Total Operations	М	\$ 1,607,380.00	\$ 1,743,956.00	\$ 1,848,550.00	\$ 1,953,929.00	\$ 2,059,626.00
Total Expenditures	N = J + M	\$ 3,759,245.00	\$ 4,081,817.00	\$ 4,406,622.00	\$ 4,701,611.00	\$ 4,973,106.00
Total Revenue	Z	\$ 3,763,863.76	\$ 4,250,216.59	\$ 4,683,567.17	\$ 5,109,346.01	\$ 5,535,124.84
Surplus / (Deficit)	= Z - N	\$ 4,618.76	\$ 168,399.59	\$ 276,945.17	\$ 407,735.01	\$ 562,018.84



Cambridge IGCSE standards and GCSE

Summary

- We commit in our Code of Practice to align the standard of Cambridge IGCSE with equivalent qualifications taken in England; we do this using statistical evidence and comparability studies.
- Work by external bodies shows Cambridge IGCSE to be comparable to qualifications taken by UK schools; Ofqual has regulated Cambridge IGCSE as Level 1/Level 2 qualifications; which is also the level of GCSEs.
- Cambridge IGCSE is high quality preparation for post-16 study
- Cambridge IGCSE qualifications were a benchmark for the design of the reformed GCSE in England.
- The content of reformed GCSE and Cambridge IGCSE syllabuses has extensive overlap, though Cambridge IGCSE will remain distinct from GCSE, offering an international choice to schools around the world.

Cambridge IGCSE® is the world's most popular international qualification for 14 to 16 year olds. It is recognised by leading universities and employers worldwide, and is an international passport to progression and success. Developed over 30 years ago, it is tried, tested and trusted by schools worldwide.

This note explains how Cambridge Assessment International Education maintains the standard of Cambridge IGCSE. IGCSE® is a registered trademark of Cambridge Assessment International Education.

Our commitment

Our Code of Practice¹ states: "The grading process will maintain the awarding standard of a syllabus from one year to the next, subject to the need for alignment with any equivalent qualification taken in England, and paying due consideration to the need for comparability with different subjects in the same qualification."

This commitment means we align Cambridge IGCSE awarding standards to those of GCSEs offered in England.

How we achieve this

We use several well-established methods to ensure that we meet our commitment.

¹ Cambridge Assessment International Education, "Code of Practice", 2017.

Each year we look at the following statistical and judgemental evidence on the alignment of Cambridge IGCSE and GCSE standards when we are setting the grade boundaries for Cambridge IGCSE.

- 1. We analyse GCSE-Cambridge IGCSE subject pairs these look at the previous year's candidates who took a combination of a Cambridge IGCSE in one subject and a GCSE in another, to see whether they performed better in one than the other. Individual candidates of course often perform better in one subject than another, but over a large population of candidates we can expect to see a close alignment of aggregate performance across any pair of subjects. When a range of GCSE subjects is considered, this tells us whether the Cambridge IGCSE is properly aligned to GCSE standards, or whether the standard needs a minor correction.
- 2. We look at post-award screening data this is the method used by GCSE boards to show whether one board's exams are slightly easier or harder than the others, so that, if any discrepancy is found, it can be corrected in the next year. We use the same method to check that Cambridge IGCSE standards are properly aligned to those of the GCSE boards.
- 3. We conduct judgemental exercises to compare Cambridge IGCSE and GCSE standards. We use the professional expertise of examiners to review candidates' scripts at key grade thresholds.

We keep the alignment of standards under continual review, and, as is common practice across awarding organisations, we make fine adjustments if there is evidence of any divergence of standards in either direction.

Looking ahead, we will continue to undertake this analysis to ensure standards between GCSE and Cambridge IGCSE remain aligned.

Recognition

UK NARIC, the UK's national agency for the recognition and comparison of international qualifications and skills, has found that the Cambridge IGCSE can be considered of a comparable level to the reformed GCSE in England, Wales and Northern Ireland.² <u>Further information can be found on our website</u>.

In the last decade, while the UK Government was encouraging its state schools to use international GCSEs, Ofqual has regulated many Cambridge IGCSEs as Level 1/Level 2 qualifications, which is also the level of GCSEs³.

Many high-performing schools worldwide use Cambridge IGCSE as part of their curriculum. They find Cambridge IGCSEs to be excellent preparation for advanced study and higher education.

Universities in the UK are used to seeing IGCSEs as part of portfolios of applications offered by international applicants. <u>Many have supplied statements</u> assuring equal recognition of reformed GCSE and Cambridge IGCSE.

² The National Recognition Information Centre for the United Kingdom, "Benchmarking Cambridge IGCSE in the Context of the UK Education System", 2016. A further study was completed in 2019.

³ The Office of Qualifications and Examinations Regulation (Ofqual), "Register of Regulated Qualifications" https://register.ofqual.gov.uk/ and "What qualification levels mean" https://www.gov.uk/what-different-qualification-levels-mean/list-of-qualification-levels

Schools' choice

Schools tell us that they choose to offer Cambridge IGCSE on the strengths of the syllabus content, and how it prepares students well for post-16 study.

The content of reformed GCSE and Cambridge IGCSE syllabuses have extensive overlap. Cambridge IGCSE will continue to contain features unique to its syllabuses so as to offer meaningful choice to schools and learners.

The vast majority of our UK schools offer a mixed economy of GCSE and Cambridge IGCSE, which suggests that in many cases, departmental heads select the syllabus that they favour based on educational considerations, including how well it prepares students for post-16 study.

Independent schools in the UK using Cambridge IGCSE are in good company. Beyond the UK, Cambridge IGCSE continues to be the leading international qualification in its class, with almost 750,000 entries in 2017/18, a 7% increase on the previous year. It is used by almost 5000 schools in over 145 countries.

The UK government brought GCSEs closer to Cambridge IGCSEs

Over the years, we have maintained Cambridge IGCSE as a rigorous examination. The reformed GCSE in England, introduced over three years from 2017, now reflects good practice already within Cambridge IGCSE; and indeed the standards and quality of Cambridge IGCSE qualifications were a benchmark for the design of the reformed GCSE. Reformed GCSEs have adopted a linear model – Cambridge IGCSEs have always been linear, allowing for a holistic approach to teaching and assessment and allowing more time for teaching and learning, with only one set of examinations at the end of the course.

"...[we are] learning from best international practice and I would encourage all schools to consider how the IGCSE might be an appropriate preparation for the changes that we hope to introduce." Secretary of State for Education, 17 September 2012

Awarding standards for GCSE have not changed, <u>as confirmed by Government Ministers</u> and the Chief Regulator at the point of introduction of the GCSE reforms.

Even though new GCSEs contain broader and more challenging content and questions than before – bringing them closer to the demands of Cambridge IGCSE content⁴ – exam boards allow for this in the awarding process. In terms of awarding standards, the pre-reform GCSEs, the reformed GCSEs and Cambridge IGCSEs remain very closely aligned.

⁴ Ofqual's 2015 study, "A Comparison of Actual and Expected Difficulty, and Assessment of Problem Solving in GCSE Maths", page 20, observed that "Current GCSEs are judged to be of lower expected difficulty than similar international assessments [including Cambridge IGCSE mathematics]". In general, the expected difficulty of the reformed, higher tier GCSE sample assessments is more in line with similar international assessments [including Cambridge IGCSE mathematics] than the current GCSE papers.



Cambridge Teacher Standards and Cambridge School Leader Standards – How and why the Standards were developed

Cambridge International is committed to the ongoing improvement of educational outcomes for all Cambridge learners around the world. We have developed the Cambridge Teacher Standards and Cambridge School Leader Standards to define key characteristics and practices of effective teachers and leaders.

This document outlines how we developed the Cambridge Teacher and School Leader Standards using the latest international research into effective teaching and school leadership.

Cambridge schools operate in a wide variety of local and national contexts. In developing the Standards, we took into account not only a range of national practices, but also input from education experts around the world. This has enabled us to identify a set of practices that are common to the best teachers and school leaders globally.



Aims of the Standards

The main purpose of the Standards is to set out the characteristics that teachers and school leaders need to deliver Cambridge programmes effectively.

The Standards provide a benchmark of what Cambridge International considers to be teacher and school leader quality. They can be used by teachers and leaders to identify what they are doing well in practice and what they can improve through professional development.

Teachers aspiring to develop their career prospects will find the Standards a helpful guide to define areas for their professional development. The Standards provide a common language and framework of expectations that will help the whole community within a school to reflect on the effectiveness of its teaching and leadership.

We recognise that classroom teaching has a substantial impact on the quality of educational outcomes (Rowe et al, 2012, Sanders & Rivers, 1996, Wiliam, 2018). It is what teachers know and do that makes the difference in improving student learning outcomes – their knowledge, pedagogical practices and relationships with students (Coe et al, 2014, Hattie 2009). We also recognise that teachers cannot sustain high-quality outcomes for all students without effective leadership (Menter et al, 2010, Rowe et al 2012).

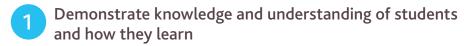
There are eight Cambridge Teacher Standards and eight Cambridge School Leader Standards. Each Standard contains a number of individual standard statements that are detailed and concrete.



The Standards are designed to be applicable internationally, so they do not refer to specific curricula, teaching strategies or programmes. Instead, the eight Standards draw on international best practice in teaching and leadership at a generic level.

As the Standards are provided as a resource for ongoing teacher and leader improvement, rather than accountability (OECD 2009), a single level is provided for each Standard. They focus on supporting all aspects of a leader's or teacher's professional learning and development, recognising the demands and complexity of their role.

Rationale for the Cambridge Teacher Standards



It is important for teachers to understand the diversity of students' needs and characteristics so that teaching can be carefully targeted to maximise learning outcomes. Teachers need to understand how students learn and develop, and the key role of mindset on student outcomes (Mourshed et al, 2017).

They need to be aware of the preconceptions and misconceptions that students bring to the classroom in order to help students make progress (National Research Council, 1999). It is important to recognise the diversity within any class and to use strategies to engage and support students of differing needs and prior attainment levels (Wiliam, 2018).

Know subject and curriculum content and how to teach it

Effective teachers must possess a deep understanding of the subject they teach. They must also be aware of the potential and opportunity that imparting this understanding can have on the lives of their students (Coe et al, 2014, Young & Lambert, 2014).

Furthermore, they need to know how to apply this knowledge within a teaching context (Shulman, 1986), to respond effectively to students' questions, to sequence ideas in ways that make learning coherent and accessible (Hattie, 2009) and to identify misconceptions (Coe et al, 2014). Student mindset has a significant impact on attainment (Mourshed, 2017) so creation of a suitable classroom climate that includes, challenges and motivates all students is important.

Literacy and numeracy skills continue to be a focus for improvement in most education systems. It is clear that digital technologies can be useful tools, but do not necessarily raise student attainment alone (Chen et al, 2017). Teachers therefore need to know how to maximise the effectiveness of digital technologies in the classroom.



Demonstrate professional teacher values and attributes

Teachers make a considerable impact on their learners (Sanders & Rivers, 1996). They should have high expectations of all learners (Rowe et al, 2012) and should avoid any practices known to have a negative impact on learners, such as labelling (Hattie, 2009). Part of their role is to maintain up-to-date professional knowledge, including subject and pedagogical knowledge (Coe et al 2014, OECD 2011). They should be dedicated and passionate (Hattie 2009). All teachers also need to maintain safe and ethical conduct.

Establish professional relationships to develop and support learning and teaching

Teachers need to develop and maintain professional relationships with learners and supporting adults. These relationships affect both student outcomes and teachers' own job satisfaction (OECD, 2011). Continuing professional development is vital to equip teachers to work effectively within changing educational systems (Darling-Hammond & Bransford, 2005). Learning is a social process, both for adults and for young people, involving the development of shared meaning and identities. Teachers should contribute actively to communities of practice within their school, building shared understandings of effective teaching and learning in context (Wenger, 1998).



Implement effective planning, teaching, learning and assessment practice

There is strong evidence for the relationship between quality of instruction and student outcomes (Coe et al, 2014). This includes all elements of the plan–teach–assess or diagnose–implement–evaluate cycle ('clinical teaching') (Melbourne, 2018). Learning goals and success criteria need to be precise and clearly understood by both teachers and learners (Hattie, 2009), so that the most effective teaching strategies are put in place.

New elements of learning need to be introduced progressively and the understanding of individuals and groups needs to be assessed in order to inform teaching (Coe et al, 2014, Wiliam, 2018). Feedback needs to be both specific and accessible to the learner. Teachers then need to give learners enough time to act on that feedback (Wiliam, 2018). Teachers need to manage this process carefully so that they maximise students' learning, while ensuring teaching practice remains efficient (Elliott et al, 2016).



Demonstrate innovative and effective classroom practice

Teachers need to understand and be able to select from a repertoire of teaching approaches that are appropriate for the age of pupils, subject topic and context. For example, they may draw on teacher-directed and inquiry-based approaches to support their learners' progress effectively (Mourshed, 2017). Active learning approaches are those that encourage students to construct knowledge (Moore, 2000): they do not always involve group work or physical activity, though these may be very appropriate at times. Classrooms should be places where children are encouraged to take risks in learning and where failure is seen as a useful resource for learning rather than as a threat to self-worth (Hattie, 2009).

Effective learners have strong metacognitive skills. They are aware of their learning and able to modify their strategies to maximise progress (Hattie, 2009). Effective teaching can encourage these skills, along with the critical and creative thinking skills that the 21st century learner needs. Self-reflection is a valuable way to improve practice (Rowe, et al 2012).



Create and maintain a safe and inclusive learning environment

A safe and stimulating classroom environment is an important pre-condition for learning (Coe et al, 2014, Hattie, 2009). The effective teacher creates a calm, purposeful and secure classroom climate (Rowe et al, 2012). As the use of digital technologies grows across the world, teachers are responsible for ensuring that students use age-appropriate tools in the classroom and that they use them safely, ethically and effectively (OECD, 2012).



Engage professionally with parents and communities

Learners and teachers are part of a wider web of relationships. Teachers need to work with parents so that they understand and can support their child's education (Hattie, 2009). It is also important that teachers are part of professional learning communities, continually developing their subject and pedagogical skills with a framework for reflective practice, for example by engaging in teacher enquiry (Baumfield et al, 2013, Gilchrist, 2018).

Rationale for the Cambridge School Leader Standards

"Research also indicates that leadership is crucial in securing improvements in pupil outcomes." (Menter et al, 2010 page 44). While recognising that school contexts differ, there is general agreement about the importance of the school leader's role in instructional leadership to maximise student learning outcomes.

The leader's values and vision are vital to raise expectations, build relationships and enhance teacher quality (Day et al, 2010). Other researchers have confirmed that leadership is also a critical determinant of overall organisational performance and the single most important determinant of attracting and retaining high-quality teachers (Darling-Hammond, 2013). Effective school leaders create the conditions for teachers to maximise the opportunities for all students to progress in their learning beyond normal developmental patterns (Kemmis et al, 2014).

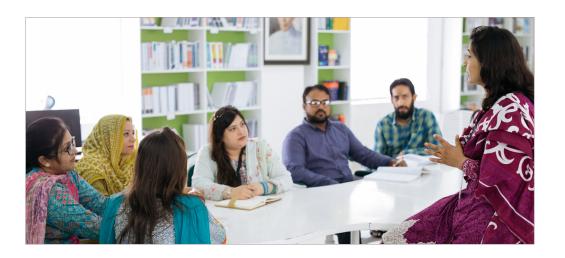
'School leadership has become a priority in education policy agendas internationally. It plays a key role in improving school outcomes by influencing the motivations and capacities of teachers, as well as the school climate and environment. Effective school leadership is essential to improve the efficiency and equity of schooling.' (OECD, 2009, page 9 to page 10).



Leadership knowledge and understanding

Effective school leaders have a clear, shared vision of high achievement and improvement that is understood by all staff (Day et al, 2010, Ontario Leadership Framework IEL, 2013). They provide a strong sense of direction and recognise that, to achieve deep and lasting change, leaders need to transform the school's culture through changing values and developing a common purpose (Fullan 2007, Hallinger, 2003).

This culture will be unique to each school and will be tailored for the school's community and its context, as well as leaders' own leadership roles in the school (Day et al, 2010, OECD, 2008, Robinson et al, 2009). Theory and research provide reflective leaders with essential guidance to help them meet the school's and their own particular circumstances (Sorum-Brown, 2013, Preedy, 2013).



2

Skills and practices of leadership

Leadership for school improvement demands a complex set of skills and practices (Hargreaves & Fullan, 2012, Robinson, 2007, Wise et al, 2013). Effective school leaders make decisions and implement change based on reliable, triangulated evidence and through consultative practice (MacBeath & Dempster, 2009, Wise et al, 2013). They recognise that building strong teams and distributing leadership responsibilities widely contributes to improved student achievement (Louis, Dretzke & Wahlstrom, 2010, Heck & Hallinger, 2009).

Leaders who seize opportunities to develop leadership skills in themselves and in others model and promote lifelong learning. By doing so, they also help to achieve a shared purpose and commitment to the school's vision and objectives. As a result, school improvement processes are made more secure (Harris, 2003, Robinson, 2011, OECD, 2013).



Leadership values and attributes

The most powerful way for school leaders to make a difference to all students' learning is for leaders to promote and participate in teacher learning and development (Robinson, 2007). Cambridge International believes it is fundamental that leadership is both a shared and an individual enterprise and should be distributed and exercised at every level (*Developing your School with Cambridge*, 2015). To make sure that Cambridge teacher development activities produce maximum impact, leaders are encouraged to develop their own leadership as well as that of their teachers (MacBeath & Dempster, 2009, OECD, 2008). Effective school leaders work constantly on developing relationships at all levels of the organisation and beyond, and model ethical conduct for the school community.



Professional relationships in leadership

Effective school leaders understand the importance of building trust throughout the school community, offering a balance of challenge and support for improvement for all (Bryk & Schneider, 2002, Louis et al, 2010). Emotionally intelligent leaders are reflective learners (Loughran, 2002), know themselves, are sensitive and empathic to others, and build strong, professional relationships within the school, locally, nationally and internationally to inspire them (Goleman et al, 2002).



Leading teaching and learning

Improving teaching is the single most important intervention that a leader can make to improve student learning and performance (Robinson, 2007). School leaders should, therefore, create a positive culture that not only focuses on student learning but which also supports and promotes the professional learning of all staff (Timperley, 2008, Lee & Spillane, 2008).

Hargreaves and Fullan write about 'professional capital' (2012) and recognise that effective leaders build this capital while focusing on the aspirations of their staff members. Effective leaders also monitor and assess the impact changed teacher practices and refined curricular programmes have on student learning (Cordingley et al, 2015, Guskey, 2002).

Cambridge leaders also demonstrate that they value the Cambridge learner attributes, interpreting them in their own school's context and using them to shape the aspirations of teachers, students and parents.



Leading innovation and improvement

Professional development that is carefully designed and has a strong focus on student outcomes has a significant impact on student achievement (Cordingley et al, 2015, Robinson 2007, Timperley, 2008). To achieve this objective through improving classroom practice, effective leaders create a learning environment for all, encouraging and nurturing innovative practice and collaborative enquiry. Leaders of successful schools develop professional learning communities among their teachers and beyond (Lee & Spillane, 2008). The suite of Cambridge Professional Development Qualifications supports leaders in doing this.

Strong school leaders lead a robust improvement planning process with areas for development identified through rigorous evaluation (*Developing your school with Cambridge*, 2015), understanding that planning, coordinating and evaluating teaching and the curriculum has significant impact on student outcomes (Robinson, 2007).



Establishing management systems

Both leadership and management are critical to school development (OECD, 2008). Effective management systems make sure that the school is running well and help to enable leaders to deliver their vision and mission for improvement (Leithwood, 2012). Building the organisational context and establishing robust management systems are crucial aspects of a school leader's role (Hallinger, 2003, Bush & Glover, 2003). Clear policies and procedures will define the values, principles and practices of the school and will guide school evaluation and development (*Developing your school with Cambridge*, 2015). Establishing procedures and responsibilities for the assessment and development of all teachers is key to providing accurate evidence of practice and to identifying teacher development needs (OECD, 2009, TALIS, 2009).



Community engagement

One of the many factors that influence learners' achievements is parental involvement. Parents are key partners in the drive to improve student learning. Their active participation in this partnership makes a difference, and so engaging with parents is a key priority for any school. The literature reinforces that parent involvement in education can foster positive learning outcomes (Epstein, 1992; Sammons et al, 1995).

Engaging with the wider community locally has a positive impact on students' attitudes towards school: 'When schools, families, and community groups work together to support learning, children tend to do better in school, stay in school longer, and like school more.' (Henderson and Mapp, 2002). Other practices can contribute to improvements in education provision generally as well as in leaders' individual schools (Bryk and Schneider, 2002, Chapman & Muijs, 2014, Stoll, 2015, Armstrong, 2015, Sharratt, 2017). These include developing professional relationships nationally and internationally, working collaboratively with other schools, as well as engaging with educational bodies such as Cambridge International to develop a shared purpose (Leithwood et al, 2010).

Relation to existing standards

In recent years, various countries have produced sets of standards for use in the accreditation of new teachers and in the development of teachers and school leaders within their national education system. The Cambridge Standards were developed in alignment with these national standards, but with the aim of enhancing development within Cambridge schools internationally. In addition, certain bodies have produced standards designed to be a resource internationally. The following standards in particular provide reference points:

- Australian professional standards for teachers and principals, AITSL, Australia. The
 teacher standards consist of seven standards across three domains of teaching.
 There are four career stages used for certification within the teacher standards
 plus a professional standard for principals that includes leadership profiles showing
 developmental pathways (AITSL, 2011, 2014).
- The Commonwealth standards framework for teachers and school leaders. A consultative version of an integrated standards framework devised following a participatory consultation method involving more than 30 countries. Five categories of professional standards are described at three levels, with a developmental aim (Gallie & Keavy, 2014).
- Teachers' standards in England. A number of sequential versions have been statutory over recent years. The current version (DfE, 2012) comprises eight teaching standards and a statement on personal and professional conduct designed to be used for both development and assessment purposes (DfE, 2014). The National Standards of Excellence for Headteachers (DfE, 2015) is non-statutory advice, designed to be used developmentally in order to 'inspire public confidence in headteachers, raise aspirations, secure high academic standards in the nation's schools, and empower the teaching profession' (page 4).

- The Singapore Teaching Practice. STP makes explicit how effective teaching and learning is achieved in Singapore schools as teachers design, empower and motivate learning. There are four core teaching processes at the heart of pedagogical practices, each with corresponding teaching areas, actions and considerations that teachers put into practice. Teachers apply and reflect on these processes and the corresponding teaching areas which have actions and considerations. The aim of STP is to enable teachers to be and become even better.
- National Board Standards, National Board for Professional Teaching Standards.
 In the US the five National Board core propositions and standards describe what teachers should know and be able to do to have a positive impact on student learning. The standards are used to support the development and certification of accomplished teaching.

Context of use

The Cambridge Standards are designed to be used as a developmental tool for teachers and leaders, within an ethos of trust and collaboration. Coe et al (2016) concluded that sustained professional learning was "most likely to result" when, among other things, the focus is kept clearly on improving student outcomes, attention is on teachers' learning rather than comparisons with others, teachers are encouraged to be continual independent learners and "an environment of professional learning and support is promoted by the school's leadership" (p. 5). Further, Hattie (2009) concludes that a supportive but aspirational professional environment in school is most likely to lead to excellence in education.

In this spirit, while we recognise that some level of teacher accountability for student outcomes and effective classroom practice is necessary and reasonable in schools and education systems, the dominant purpose of the Cambridge Teacher and School Leader Standards is one of ongoing teacher improvement rather than accountability (OECD 2009). Such an emphasis is possible and desirable for a set of standards that has not been developed to be used for mandatory accreditation within a national context.

Bibliography

Armstrong, P. (2015). *Effective school partnerships and collaboration for school improvement: a review of the evidence.* London: DFE. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/467855/DFE-RR466_-_School_improvement_effective_school_partnerships.pdf

Asia Society. (2011). Improving teacher quality around the world: The international summit on the teaching profession. New York: Asia Society.

Available at: https://asiasociety.org/sites/default/files/T/teachersummitreport0611.pdf

Australian Institute for Teaching and School Leadership (AITSL). (2011). Australian professional standards for teachers. Melbourne: AITSL.

Available at: https://www.aitsl.edu.au/docs/default-source/general/australian-professional-standands-for-teachers-20171006.pdf?sfvrsn=399ae83c_12

Australian Institute for Teaching and School Leadership (AITSL). (2014). Australian professional standard for principals and the leadership profiles. Melbourne: AITSL.

Available at: https://www.aitsl.edu.au/docs/default-source/default-document-library/australian-professional-standard-for-principals-and-the-leadership-profiles652c8891b1e86 477b58fff00006709da.pdf?sfvrsn=11c4ec3c_2

Australian Institute for Teaching and School Leadership (AITSL). (2016). Using data to improve learning outcomes. [video]

Available at: https://www.youtube.com/watch?v=zRMBS3mnFiM [Accessed 5 May 2018].

Barber, M., Whelan, F. and Clark, M. (2010). *Capturing the leadership premium: how the world's top school systems are building leadership capacity for the future*. McKinsey & Co. Available at: https://www.mckinsey.com/industries/social-sector/our-insights/capturing-the-leadership-premium

Baumfield, V., Hall, E. and Wall, K. (2013). Action research in education. 2nd ed. London: Sage Publications Ltd.

Bush,T & Glover,D (2003) School Leadership: Concepts and Evidence. Nottingham: National College for School Leadership.

Summary report available at: http://dera.ioe.ac.uk/4904/1/download%3Fid=17370&filename=school-leadership-concepts-evidence-summary.pdf

Bryk, A. S. and Schneider, B. (2002). Trust in Schools: A Core Resource for Improvement. New York: Russell Sage Foundation.

Cambridge Assessment International Education. (2018). Developing the Cambridge Learner Attributes.

Available at: http://www.cambridgeinternational.org/images/417069-developing-the-cambridge-learner-attributes-.pdf

Cambridge Assessment International Education. Educational Leadership. [online]

Available at: www.cambridgeinternational.org/cambridge-professional-development/professional-development-qualifications/curriculum/educational-leadership

Centre of Study for Policies and Practices in Education (CEPPE), Chile (2013). *Learning Standards, Teaching Standards and Standards for School Principals: A Comparative Study,* OECD Education Working Papers, No. 99, OECD Publishing. Available at: http://dx.doi.org/10.1787/5k3tsjqtp90v-en

Chapman, C. and Muijs, D. (2014). Does school-to-school collaboration promote school improvement? A study of the impact of school federations on student outcomes. *School Effectiveness and School Improvement*, 25(3), pp. 351–393.

Bibliography continued

Chen, L., Dorn, E., Krawitz, M., Lim, C. and Mourshed, M. (2017). *Drivers of student performance: Asia insights*. McKinsey & Company. Available at: www.mckinsey.com/industries/social-sector/our-insights/drivers-of-student-performance-asia-insights

Coe, R., Aloisi, C., Higgins, S. and Major, L. (2014). What makes great teaching?

Available at: www.suttontrust.com/wp-content/uploads/2014/10/What-Makes-Great-Teaching-REPORT.pdf

Cordingley, P., Higgins, S., Greany, T., Buckler, N., Coles-Jordan, D., Crisp, B., Saunders, L. and Coe, R. (2015). *Developing Great Teaching: Lessons from the international reviews into effective professional development. Teacher Development Trust.* Available at: http://tdtrust.org/wp-content/uploads/2015/10/DGT-Full-report.pdf

Darling-Hammond, L. (2013). Getting teacher evaluation right: What really matters for effectiveness and improvement. New York: TCP.

Darling-Hammond, L. and Bransford, J. eds., (2005). Preparing teachers for a changing world: What teachers should learn and be able to do. San Francisco, CA: John Wiley & Sons, Inc.

Day, C., Sammons, P., Hopkins, D. et al (2010). 10 strong claims about successful school leadership. Nottingham: National College of Leadership for Schools and Children's Services. Available at: www.gov.uk/government/publications/10-strong-claims-about-successful-school-leadership

Department for Education (DfE), England. (2012). Teachers' Standards. London: Department for Education. Available at: www.gov.uk/government/publications/teachers-standards

Department for Education (DfE), England. (2014). Teachers' Standards: How should they be used? London: Department for Education.

Available at: www.gov.uk/government/publications/teachers-standards

Department for Education (DfE), England. (2015). National Standards of excellence for headteachers. London: Department for Education.

Available at: www.gov.uk/government/publications/national-standards-of-excellence-for-headteachers

Elliott, V., Baird, J., Hopfenbeck, T. et al (2016). A marked improvement: A review of the evidence on written marking. Education Endowment Foundation.

Available at: https://educationendowmentfoundation.org.uk/evidence-summaries/on-marking

Epstein, J (1992) School and Family Partnerships. Baltimore: John Hopkins. Available at: https://files.eric.ed.gov/fulltext/ED343715.pdf

Fullan, M. (2002). The Change Leader. Educational Leadership.

Available at: www.ascd.org/publications/educational-leadership/may02/vol59/num08/The-Change-Leader.aspx

Fullan, M. (2007). Leading in a culture of change. San Francisco, CA: Jossey-Bass.

Gallie, M. and Keavy, J. (2014). Standards framework for teachers and school leaders: Consultation report. London: The Commonwealth.

Gilchrist, G. (2018). Practitioner Enquiry: Professional development with impact for teachers, schools and systems. Abingdon, UK: Routledge.

Goleman, D., Boyatzis, R. and McKee, A. (2002). *Primal leadership*. Boston: Harvard Business School Press.

Bibliography continued

Guskey, T. R. (2002). Does It Make a Difference? Evaluating Professional Development. *Educational Leadership*, [online] 59(6) Redesigning Professional Development, pp. 45–51. Available at: https://pdo.ascd.org/LMSCourses/PD13OC010M/media/Leading_Prof_Learning_M6_Reading1.pdf

Hallinger, P. (2003). Leading Educational Change: reflections on the practice of instructional and transformational leadership. *Cambridge Journal of Education*, [online] 33(3), pp. 329–352. Available at: www.researchgate.net/publication/248999383_Leading_Educational_Change_reflections_on_the_practice_of_instructional_and_transformational_leadership [Accessed 18 Jul. 2018].

Hallinger, P. and Heck, R. (2010). Collaborative leadership and school improvement: understanding the impact on school capacity and student learning. School Leadership & Management, 30(2), pp. 95–110.

Hargreaves, A & Fullan, M (2012) Professional Capital. Transforming Teaching in Every School. Teachers College Press & Ontario Principals' Council.

Harris, A. (2003). Distributed Leadership in Schools: Leading or misleading? *Management in Education*, 16.

Harris, A. and Goodall, J. (2007). Engaging parents in raising achievement: Do parents know they matter? London: Department for Children, Schools and Families.

Hattie, J. (2009). Visible Learning. Abingdon, UK: Routledge.

Hattie, J. (2015). What Works Best in Education: The Politics of Collaborative Expertise. London: Pearson.

Available at: www.pearson.com/content/dam/one-dot-com/one-dot-com/global/Files/about-pearson/innovation/open-ideas/PoliticsofCollaborativeExpertise.pdf

Henderson, A. T. and Mapp, K. L. (2002). A New Wave of Evidence: The Impact of School, Family, and Community Connections on Student Achievement. Austin, TX: National Center for Family and Community Connections with Schools. Available at: www.sedl.org/connections/resources/evidence.pdf

Kemmis, S., Heikken, H., Frannson, G. et al. (2014). Mentoring of new teachers as a contested practice: Supervision, support and collaborative self-development. *Teaching and teacher education*, 43, pp. 154–164.

Lee, P. H. and Spillane, J. P. (2008). Professional Community or Communities? In: J. MacBeath and Y. C. Cheng, eds., *Leadership for Learning – International Perspectives*. Rotterdam: Sense Publishers, pp. 65–79.

Leithwood, K. (2012). *The Ontario Leadership Framework, IEL*. Available at: https://www.education-leadership-ontario.ca/application/files/2514/9452/5287/The_Ontario_Leadership_Framework_2012_-_with_a_Discussion_of_the_Research_Foundations.pdf

Loughran, J. (2002). Effective Reflective Practice: In Search of Meaning in Learning about Teaching. Journal of Teacher Education, 53, pp. 33–43.

Louis, K., Dretzke, B. and Wahlstrom, K. (2010a). How does leadership affect student achievement? Results from a national US survey. *School Effectiveness and School Improvement*, 21, pp. 315–336. Available at: www.researchgate.net/publication/232860728_How_does_leadership_affect_student_achievement_Results_from_a_national_US_survey

Bibliography continued

Louis, K., Leithwood, K., Wahlstrom, K., and Anderson, S. (2010b). Learning From Leadership Project: Investigating The Links To Improved Student Learning. The Wallace Foundation. [online] Available at: www.wallacefoundation.org/knowledge-center/school-leadership/key-research/Documents/Investigating-the-Links-to-Improved-Student-Learning.pdf [Accessed 19 Apr. 2018].

Macbeath, J. and Dempster, N. eds, (2009). Connecting Leadership and Learning: Principles for Practice. London, UK: Routledge.

Melbourne Graduate School of Education. (2018). Clinical Teaching: what does clinical teaching mean? Available at: https://education.unimelb.edu.au/about_us/clinical-teaching

Menter, I., Hulme, M., Elliot, D., Lewin, J. et al. (2010). Literature review on teacher education in the 21st century. Edinburgh: Scottish Government.

Available at: www.gov.scot/Resource/Doc/325663/0105011.pdf

Ministry of Education, Singapore. (2018). The Singapore Teaching Practice. Available at: https://www.moe.gov.sg/about/singapore-teaching-practice

Moore, A. (2000). Teaching and learning: Pedagogy, curriculum and culture. London: RoutledgeFalmer.

Mourshed, M., Krawitz, M. and Dorn, E. (2017). *How to improve student educational outcomes: New insights from data analytics.* McKinsey & Company. Available at: https://www.mckinsey.com/industries/social-sector/our-insights/how-to-improve-student-educational-outcomes-new-insights-from-data-analytics

National Board for Professional Teaching Standards. (2018). National Board Standards. Available at: www.nbpts.org/standards-five-core-propositions

National Research Council. (1999). How People Learn: Bridging Research and Practice. Washington, DC: The National Academies Press. Available at: https://doi.org/10.17226/9457

OECD (2008). Improving School Leadership Volume 1 Policy and Practice. Paris: OECD Publishing.

Available at: www.oecd.org/education/school/41686541.pdf

OECD. (2009). Teacher evaluation: A conceptual framework and examples of country practices. Paris: OECD Publishing.

Available at: www.oecd.org/education/school/44568106.pdf

OECD. (2011). Building a high-quality teaching profession: Lessons from around the world. Paris: OECD Publishing.

Available at: https://asiasociety.org/sites/default/files/O/oecd-teachersummit.pdf

OECD. (2012). The protection of children online: Report on risks faced by children online and policies to protect them. Paris: OECD Publishing.

Available at: www.oecd.org/sti/ieconomy/protectingchildrenonline.htm

Pont, M., Nusche, D. and Moorman, H. (2008). Improving School Leadership Volume 1. OECD.

Available at: www.oecd.org/education/school/44374889.pdf

Preedy, M (2013) Introductions and Conclusion in Wise, C, Bradshaw, P and Cartwright, M (2013) Leading professional Practice in Education. London: Open University with Sage.

Bibliography continued

Robinson, V. M. J. (2007). School leadership and student outcomes: Identifying what works and why. Winmalee, NSW: Australian Council for Educational Leaders. (Monograph 41, ACEL Monograph Series, Editor David Gurr.) Reprinted in SPANZ: The Journal of the Secondary Principals' Association of New Zealand, December 2008.

Robinson, V, Hohepa M and Lloyd C (2009). School Leadership and Student Outcomes: Identifying What Works and Why. New Zealand Ministry of Education.

Available at: https://www.educationcounts.govt.nz/publications/series/2515/60170

Robinson, V. (2011). Student-Centred Leadership. San Francisco: Jossey-Bass.

Rowe, N., Wilkin, A. and Wilson, R. (2012). *Mapping of Seminal Reports on Good Teaching* (NFER Research Programme: Developing the Education Workforce). Slough: NFER. Available at: www.nfer.ac.uk/publications/RSGT01/RSGT01.pdf

Sammons, P, Hillman, J and Mortimer, P. (1995). Key Characteristics of Effective Schools. London, Office for Standards in Education.

Sanders, W. and Rivers, J. (1996). *Cumulative and residual effects of teachers on future student academic achievement*. Knoxville, TN: University of Tennessee Value-added Research and Assessment Center.

Sharratt, L & Planche, P. (2016) Leading Collaborative Learning. London: Corwin Sage

Shulman, L. (1986). Those who understand: knowledge growth in teaching. Educational Researcher, 15(2), pp. 4-14.

Sorum Brown, J. (2012) The Art and Spirit of Leadership. Indiana: Trafford Publishing.

Stoll, L. (2015). *Three greats for a self-improving school system: pedagogy, professional development and leadership: executive summary.* Teaching schools R&D network national themes project 2012–14. London: Department for Education (DfE).

Timperley, H. (2008). Teacher professional learning and development. Educational Practices series 18. Geneva: International Bureau of Education.

Available at: www.ibe.unesco.org/fileadmin/user_upload/Publications/Educational_Practices/EdPractices_18.pdf [Accessed 7 Jun. 2018].

University of Cambridge. Leadership for Learning. [online] Available at: www.educ.cam.ac.uk/centres/lfl

University of Cambridge International Examinations. (2015). Developing your school with Cambridge: A guide for school leaders.

Available at: www.cambridgeinternational.org/teaching-and-learning/developing-your-school-with-cambridge

Wenger, E. (1998). Communities of practice: Learning, meaning and identity. Cambridge: Cambridge University Press.

Wiliam, D. (2018). Embedded formative assessment. 2nd ed. Bloomington, IN: Solution Tree Press.

Wise, C., Bradshaw, P. and Cartwright, M. eds, (2013). Leading Professional Practice in Education. London: Open University with Sage.

Young, M. and Lambert, D. (2014). Knowledge and the future school: Curriculum and social justice. London: Bloomsbury.





Principles for designing, administering and evaluating assessment

Contents

Section The Cambridge Approach

- 2 Cambridge Assessment, its principles and values
- 3 The range of assessments in Cambridge Assessment's work
- 4 The integrated model
- 5 Design and development of assessments
- **6** Validity
- 7 Reliability, precision and bias
- 8 Administration of assessments

Reading this document

We have divided the content into sections to make it easy to read.

Sections 1 to 3 provide background to the Cambridge Approach.

Sections 4 to 8 give details of the principles which make up the Cambridge Approach.

Each section includes explanatory text, followed by clearly stated, numbered principles.

These principles form the key reference points for designing, administering and evaluating the assessments offered by the Cambridge Assessment Group.

The Cambridge Approach was drawn up by Tim Oates, Group Director of Assessment Research and Development, with the help and support of a wide range of professionals within the Group. Particular thanks go to: Mark Dowling, Elizabeth Gray, Nick Saville, Jean Marshall, Tom Bramley, Sylvia Green, Stuart Shaw, Di Palmer, Anthony Dawson, Hanan Khalifa Louhichi and Elizabeth Mills, for their reviews of the principles.

The Cambridge Approach was drawn up by Tim Oates CBE, Group Director of Assessment Research and Development. Any queries relating to this document should be addressed to him.

Section 1 The Cambridge Approach

Cambridge Assessment was established to promote educational excellence and highquality learning through the use of assessment. In order to achieve this it is committed to ensuring that all its assessments are fair, have sound ethical underpinning, and operate according to the highest technical standards.

The Cambridge Approach sets out in a short and straightforward document what these principles involve in practice. It has been designed to be detailed enough to guide practice, but concise enough for the full content to be remembered, and to be fully read by busy people rather than placed on a shelf 'to be read at some point when I have enough time...'.

The principles emphasise strongly the need for manuals for individual assessments: detailed criteria and requirements linked to specific tests and examinations, with these reflecting their different purposes, measurement models, modes of assessment and modes of operation. These detailed criteria and requirements will change over time as measurement practice improves, as legal regulation changes, and solutions to operational problems are devised. They will be owned and maintained by the board within the Group responsible for each individual assessment.

The Cambridge Approach gives the guiding principles for assessment; the manuals embody these principles and provide the day-to-day reference for those designing and operating the organisation's tests and examinations.

Simon Lebus Group Chief Executive

> 'The Cambridge Approach gives the guiding principles for assessment, set out in a short and straightforward document.'

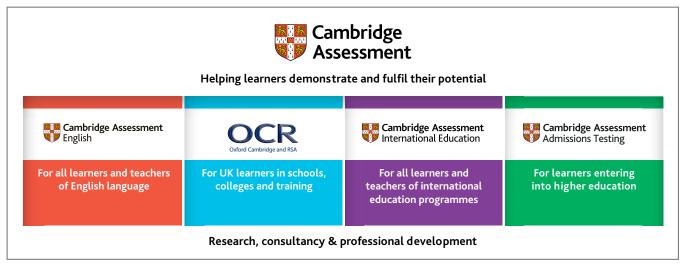
Section 2 Cambridge Assessment, our principles and values

At Cambridge Assessment, our purpose is to help learners demonstrate and fulfil their potential. We care about making a difference for every learner.

As a department of the University of Cambridge, we provide education programmes and exams in over 170 countries offering global recognition. We unlock the power of education for millions of learners of all ages and abilities.

We have unrivalled depth of experience in national education systems, international education and English language learning. We are an international not-for-profit organisation with unique strengths and 160 years of expertise. Our qualifications are backed by the largest research capability of its kind.

We support and learn from teachers, schools and governments. Together, we are shaping education and creating a confident future for learners and a real and lasting impact on the world.



Organisational structure of the Cambridge Assessment Group

Our research underpins all our qualifications and education programmes. Across Cambridge Assessment we have a team of more than 100 researchers, which makes our research capability the largest of its kind. It is this research strength that enables us to help teachers, learners and governments stay at the forefront of education and unlock its power.

But our research is not just about ensuring our qualifications and services are the very best for learners. It's also designed to add to knowledge and understanding about

assessment in education, both nationally and internationally. We also carry out research for governments and agencies to inform their education reform programmes. It's all with one goal in mind – helping learners.

We strive to open doors for learners, to unlock the power of education and give them the confidence to thrive. We work with many national educational organisations and ministries through our international organisations, Cambridge English Language Assessment and Cambridge International Examinations. We work to improve standards of education, creating opportunity for learners around the world.

Cambridge Assessment has a high number of experts, with proven experience in curriculum and assessment design, and as a part of the University of Cambridge has access to world-leading resources, skills and research. We work in collaboration with institutions such as University of Cambridge Faculty of Education, Cambridge University Press and Fluentify to offer a comprehensive service to our partners.

In the UK we have been working with industry leaders to develop real industry projects for our Cambridge Technical and Cambridge National qualifications to give learners a head start in their chosen career.

Section 3

The range of assessments in Cambridge Assessment's work

Cambridge Assessment designs and administers assessments which have a formative function, as well as those with a predominantly summative function.

The assessment providers in the Group include:

Cambridge English Language Assessment

Tests and qualifications from Cambridge English Language Assessment are taken by over five million people, in 130 countries each year. Cambridge English's teaching qualifications provide a route into the English Language Teaching profession for new teachers as well as career development opportunities for experienced teachers. Cambridge English's qualifications and development work are underpinned by an extensive programme of research and evaluation work, undertaken by a dedicated research unit.

Cambridge International Examinations

Cambridge International Examinations is the world's largest provider of international qualifications for 5 to 19 year olds. Cambridge qualifications are available in over 160 countries.

Oxford Cambridge and RSA

Oxford Cambridge and RSA (OCR) is a leading UK awarding body providing general academic and vocational qualifications for young people and adults.

Assessment Research and Development

The Assessment Research and Development division supports development and evaluation work across the Cambridge Assessment Group.

The providers in the Group develop, administer and evaluate a very wide range of assessment instruments, from essay-based papers for general education to performance assessment in occupational settings.

Assessment takes place in the context of national and international legislation, and assessment/qualifications codes and criteria – the latter being predominantly national in character. Assessment development and administration should take due account of legislation and pending changes in legislation. Assessment/qualifications codes and criteria should be viewed as necessary operating frameworks, themselves undergoing change as knowledge of assessment and public policy improves. The development and evaluation of assessment by Cambridge Assessment itself contributes to the corpus of knowledge on assessment. This can yield valuable evidence for the refinement of codes and criteria, as well as new approaches not yet anticipated by, or incorporated in, these codes and criteria – for example, use of item types not yet used in a given subject or occupational area, new types of grading models, etc.

Care should thus be taken to comply with the requirements of codes and criteria, but it is essential to collect evidence from assessment development, administration and evaluation which can be used, by those responsible for the codes, to refine them.

The principles outlined in this document apply to the full range of assessment instruments developed, administered and evaluated by the assessment providers in the Group. These fall into the following main categories:

Objective-response items

Where candidates are required to provide a highly defined response, such as adding a line to a diagram, completing a number sequence, completing a statement.

Multiple-choice items

A specific form of objective-response item, where the candidates' responses are constrained to a given list of alternatives, selecting the response which best completes a statement or answers a question.

Short-answer items

Where candidates have to provide succinct, specific responses to questions, but where the marking scheme allows some variation in those responses.

Extended-response items

Where candidates have to create a given amount of text and/or working, and which allow candidates to organise their responses and present material in an original way.

Coursework/non-examined and teacher assessment

Where candidates produce written reports or complete structured activities which are typically marked by teachers and tutors who are also responsible for delivering the learning programmes in which the assessment is located.

Performance assessment

Where performance in work tasks, or activities such as laboratory work are observed and scored/rated by a teacher or qualified assessor. Assessment in work contexts typically is guided by occupational standards.

Evidence accumulation

Where candidates are responsible (with appropriate levels of support) for gathering evidence of performance in a range of activities and for assembling this evidence into a portfolio/record of evidence. This is then scored/rated by teachers or qualified assessors and subject to external moderation/verification.

Across these, there are three typical development and management models:

1 Banked items

design - validation - pre-testing - banking (with meta data) administration – outcomes

This can be characterised as a 'data accumulation' model. A key aspect of such an approach is linking items to specific skills, knowledge and/or understanding and placing items on specific measurement scales associated with these constructs. Items typically are subjected to pre-testing in order to yield item performance data, allowing inclusion in the bank once specified quality criteria have been met. The administration of the items tends not to include an awarding session, and (within secure systems), repeated administration of the item yields more data which are accumulated in the record for the item in the bank. Secure administration of the tests allows re-use and data accumulation. The standard evaluation method for this model is integrated within the normal test administration process through the data-accumulation processes. Additional reviews of use and impact are commissioned as separate processes. Overexposure and material becoming out of date are key threats to validity in this model.

2 Awarding-based assessments

design – review – administration – outcomes – awarding – endorsement

This can be characterised as a 'review and award' model. Items typically are not subjected to pre-testing, and the total score in an examination or examination component is scrutinised in awarding processes, principally designed to align the standard in any session with the standard applied in earlier sessions. Internal quality assurance processes operate on marking and awarding, using data derived from the awarding session, previous sessions and other bodies of data such as prior attainment of candidates. Endorsement of the award is an important post-award process. The main evaluation processes comprise separate review and dedicated processes such as comparability exercises. Routine reuse of items is not a feature of this model. Without pre-testing, unanticipated problems in the characteristics of the item (bias, wrong level of difficulty) are key threats to validity in this model (see section 6).

3 Performance-based assessments

specification of standards/objectives – identification or specification of opportunities to collect evidence – judgement – moderation

This can be characterised as an 'evaluation' model. Assessment is based on simulated or naturally occurring activities which allow assessment against stated standards or assessment objectives. Samples of evidence or assessment decisions can be subjected to external moderation. Overall evaluation is discharged through separate review – this review can include data-oriented evaluation where sufficient numbers of assessments have been made to enable a scrutiny of possible gender bias etc. and where the assessment is expected to correlate with later performance. The standards/objectives can be pitched at very different levels of detail (e.g. highly specific requirements such as making an accurate medical diagnosis of a specific condition through to very generic requirements such as 'exercising customer care'). The emphasis on performance in naturally occurring activities or simulations approximating to naturally occurring activities tends to involve relatively open and complex assessment tasks/opportunities in which assessors have to make judgements based on the stated standards. Variability in the interpretation of the standards and the openness/complexity of the elements in the tasks are key threats to validity in this model.

The principles in this document apply to all modes of assessment – paper, on-screen, adaptive, by observation, oral questioning, and so on, and all 'item types'.



Section 4

The integrated model

All assessments originated and operated by the Group are underpinned by an integrated model of design, development, administration and evaluation.

Fundamental to this is:

- Clear statement of purpose
- Identification of candidate population and their characteristics
- Cataloguing of the constructs which are the focus of the assessment
- Clear statement of measurement principles, including standards-setting, standardsmonitoring and standards-maintenance processes
- Documentation of development and refinement processes
- Documentation of all elements of administration including provision of clear service standards for each assessment

- Documentation of all quality assurance processes
- Analysis of the measurement characteristics of the assessment, including its reliability; analysis for bias; and analysis of other aspects of the technical performance of the assessment
- Analysis of operation of the assessment, its impact and the use to which outcomes are put
- 10 Documentation of all key decisions which affect the characteristics, operation and use of the assessment and its outcomes, and archiving of relevant material

Integrated model: Principle 1

At all stages of this integrated process, comprehensive documentation should be accumulated, by nominated officers, on the characteristics of the assessments and their constituent elements. The documentation should be structured using the framework 1–10 (see above), and be informed by the principles which are presented in the following sections of this document. This will constitute the manual for each assessment or group of related assessments. The documentation should be sufficiently detailed and precise to support effective audit processes and accountability arrangements.

The manual for each assessment is a vital tool for effective development, administration, evaluation and refinement. It supports:

- audit and other review and accountability processes
- review of allied and cognate assessments
- · assessment management and administration processes
- · historical review of the 'evolution' of an assessment

For some assessments and qualifications, the manual will be a consolidated document. In other cases the data and documents may be dispersed. In such circumstances the 'manual' will comprise of a succinct index of the data and documents, and all elements will be reviewed to ensure that they meet the criteria presented in this document. Records and documents such as those developed to meet quality criteria and standards such as those from ISO are intended to be a part of this and, where they meet the requirements presented in this document, do not require duplication in a different form.

For all phases of assessment design, operation and evaluation, information on proposed and actual candidates is vital, and should form a part of the documentation associated with the qualification.

Integrated model: Principle 2

Data should be accumulated on the characteristics of the candidates taking the assessments. This is essential for informing issues of standards, bias, equity etc. This becomes particularly important when qualifications are in pilot phase, and when change in specifications is implemented.

Section 5

Design and development of assessments

The key criterion driving assessment at Cambridge Assessment is validity. Design of specific instruments is determined by: purpose; the characteristics of the setting in which the assessment will operate; and any national codes and criteria which specifically apply.

The Group operates across a very wide range of national contexts, and the design of assessments and their administration arrangements must be sensitive to the specific conditions which apply in each of those contexts.

The principles laid down below address different aspects of validity but should be seen as different elements of a 'thread' of validity which runs continuously from the specified purpose of an assessment, through the specification for the assessment, the items which make it up, the inferences which are drawn from it, and its impact.

The Cambridge Approach emphasises the importance of viewing 'fitness for purpose' as being related to the interests and needs of the various stakeholders in the assessment and not merely some of them. Assessments and qualifications which are used for selection and progression purposes – e.g. for university admissions – must have measurement properties consistent with the use to which they are being put. But it is vital also to recognise that formative assessment and in-course assessment, while not used for selection purposes, can have a powerful effect on learners' views of themselves (their identity as learners, their sense of belonging to specific learner groups) and can dramatically affect learners' decisions about the things at which they are 'good' and 'bad'. This can affect learners' decisions about which directions to take in learning programmes, where to put effort in order to excel etc.

As a result, Cambridge Assessment does not differentiate different levels of quality assurance, development effort and evaluation/research effort on the basis of different 'classes' of assessment. It believes that misclassification and lack of validity are serious matters in all assessments, and effort should be devoted to (i) maximisation of validity, and (ii) quantification and reduction of measurement error and bias, in all assessments.

Design: Principle 1

Design processes for assessments from Cambridge Assessment must be predicated on:

- 1 Identification of clear need for the assessment, to the benefit of the individual, society and the economy
- Precision in the specification of the purpose, content, mode, administration processes and results service of the assessment. The principles on validity included in this document emphasise the importance of matching mode of assessment, item type and content, rubrics and regulations etc. to the purpose of the assessment and the context in which it is intended to be administered. Precision in specifying these aspects of the assessment during the design process enhances its integrity and robustness. The expectations regarding measurement quality and necessary characteristics of the assessment are key aspects of the 'design blueprint' for the assessment.

- Consultation with all relevant parties
- A development process which has sufficient resources, has an adequate timeframe and has clear criteria for the evaluation of the adequacy of the emerging assessment. The specification for each assessment will be made available in its final form with sufficient lead time to allow those administering the assessment to make adequate preparation for it - for example, to put well-designed learning programmes in place.
- A design phase which guards against unnecessary divergence of approach across the Group, by comparison of the emerging assessment with any like developments in the Group, adoption of all state-of-the-art approaches, and clear statement of fitness for purpose.

Cambridge Assessment is committed to development and piloting processes which are designed to enhance an assessment at all stages of its development:

Design: Principle 2

Concurrent formative evaluation should be used, wherever appropriate, to provide focused support to the development process.

Design: Principle 3

All manuals for assessments should specify initial, medium and long-term validation and evaluation strategy for the assessment.

Design: Principle 4

Care should be taken to comply with the requirements of national and international codes and regulations, criteria and frameworks; but it is essential to collect evidence from assessment development, administration and evaluation which can be used, by those responsible for the codes, to refine them.

Design: Principle 5

Initial cycles of the operation of an assessment should be subject to adequate evaluation. Evaluation information from the operation of the initial cycles of the assessment should be fed into validation and refinement of the qualification.

Design: Principle 6

Data from the assessment and data from other sources should be used to ensure the most precise initial fix of standards in the first assessment cycles.

Design: Principle 7

All evaluation work should be informed by the fullest information on the candidature for the assessments, recognising that for some assessments, and in some country contexts, systems for the provision of this kind of data are underdeveloped.

Design: Principle 8

Ethical safeguards should be put in place for all learners taking part in piloting processes for new assessments, including protections (dispensations and compensations) which will safeguard candidates in the event of problems arising during piloting.

Design: Principle 9

Regulations relating to security should be observed throughout all initial and recurrent development work – such as continuing development of assessment items. Items and associated materials should be kept secure at all stages of development. Conflicts of interest for those involved in the development of assessment items should be avoided.

Design: Principle 10

The presentation of assessments will conform with house style, and with international best practice in respect of such matters as scientific units and presentation of diagrams. The assessments will be free from content errors and typographical errors. Assessments will be designed with sensitivity to the gender, nationality, and ethnic and religious backgrounds of those taking the assessments.

Section 6 **Validity**

Cambridge Assessment treats validity – and validation processes – as a pervasive concern which runs through all of its work on the design and operation of assessment systems. This begins with consideration of the extent to which the assessment is assessing what it is intended to assess and flows out to the uses to which the information from the assessment is being put. The extent to which the inferences which are made on the basis of the outcomes of the assessment are meaningful, useful and appropriate is seen as a vital aspect of validity. Assessment is located in context, and validity is linked to the use of a specific assessment in a specific context, with a particular group of candidates. Validation consists of the collection and analysis of data which address the validity of the assessment and, in particular, whether the inferences made on the basis of the outcomes of the assessment are appropriate.

This approach yields a number of principles:

Validity: Principle 1

The manual for the assessment and any supporting material for the assessment should include a clear statement of purpose – what the assessment is intended to assess and the uses to which the information from the assessment should be put, including arguments against any known misuses or potential obvious misuses. While Cambridge Assessment cannot be held directly responsible for misuses of the information from the assessments for which it is responsible, the approach to validity adopted by the organisation emphasises that all reasonable steps should be taken to ensure that the information from the assessment is used appropriately. Suitable information and guidance should be provided for all assessments regarding use of outcomes; adequate contractual safeguards should be put in place where appropriate; and use and impact studies routinely commissioned. Impact studies should include investigation of any effects on teaching and learning, washback into the curriculum, etc. using the stated purpose of the assessment as a reference point. Assessment developers and administrators should be aware that the uses to which the outcomes of assessments are put are within the definition of validity used by Cambridge Assessment.

Validity: Principle 2

Each assessment should provide a basis for making valid inferences about the skills, knowledge and/or understanding which forms the focus of the assessment – the specific constructs at the heart of each assessment. The assessment should possess wellfounded content validity. This entails using existing and/or original research to establish what elements of knowledge, understanding and/or skills are the intended construct. Understanding of what makes up effective performance in physics, languages etc. is constantly changing; as is the content of educational programmes, societal expectations and requirements in the economy. Those responsible for developing assessments should ensure that the constructs at the heart of each assessment are well grounded - that they are indeed the things which make up effective performance in the subject or occupational area. The constructs at the heart of each assessment should be clearly stated in the manual for the assessment. This should include a reference to any key research or sources which were used as the rationale for including the constructs in the assessment and for determining the way that they are framed

Validity: Principle 3

The assessment should sample adequately from a subject area or area of performance in order to make claims about processes in such domains as well as content. Some assessments may require recall of facts while others require a focus on application and analysis or on procedures and cognitive processes. Where appropriate, the assessment should require sufficient processing of this kind to ensure that a reasonable claim can be made that the candidate has demonstrated use of such processes. While sampling from domains should be at an adequate level, assessments with more than one component should avoid overassessment by seeking to avoid unnecessary repetition of assessment of the same knowledge, understanding and skills.

Validity: Principle 4

The internal structure of the assessment should be consistent with the internal structure of the content domain. Those things which attract marks or credit should be genuinely significant elements of performance in a subject, and the assessment should have authentic sequencing of activities and processes.

Validity: Principle 5

'Generalisability' should be addressed in the development and evaluation of the assessment. It should have sufficiently representative coverage of the content and processes of the construct domain to allow reasonable claims regarding generalisability - the extent to which the skills, knowledge and other attributes can be reproduced in settings other than the setting of the assessment.

Validity: Principle 6

'Construct under-representation' should be guarded against in the development and evaluation of the assessment. This occurs when the tasks which are measured in the assessment fail to include important dimensions or facets of the construct which is the focus of the assessment. Under such circumstances, the test results are unlikely to reveal a candidate's abilities in respect of the construct.

Validity: Principle 7

'Construct-irrelevant variance' should be minimised. For example, if an examination question is about ratio, it should only be possible to score on the item by using ratio. Any extraneous elements – such as obscure contexts which are used in the question, or asking the question to be completed with undue speed – should be identified and remedied. Too high a reading level demanded by the question and/or the stimulus material, undue complexity of stimulus material, and poor question layout are

common problems which should be guarded against. It is essential that any increase in attainment/performance should be directly linked to elements of the constructs which are the focus of assessment, and not derive from construct-irrelevant difficulty. 'Construct-irrelevant easiness' should be avoided, which occurs when extraneous clues in item or task formats permit some individuals to respond correctly or appropriately in ways that are irrelevant to the construct being assessed. 'Construct-irrelevant difficulty' should also be avoided, and occurs when extraneous aspects of the task make the task in an irrelevant manner more difficult for some individuals or groups. While the first type of construct-irrelevant variance is associated with a score higher than one would attain under normal circumstances, the latter is associated with a notably lower score.

Validity: Principle 8

The measurement model, assessment approaches, grading and reporting arrangements should be well matched to the constructs at the heart of the assessment and the uses to which the information from the assessment is to be put. The measurement characteristics of the assessment should be established, using techniques matched to the purpose and form of the assessment – for many assessments, investigating the psychometric properties of the assessment is an essential part of this.

Validity: Principle 9

Validation studies should be commissioned, where necessary, to ensure that the intended inferences can be made from the assessment, and that the assessment is performing as expected. For example, if the assessment is intended to predict later performance in a following stage of education or training, the relationship between the outcomes of the assessment and the outcomes of the subsequent education and training programme should be systematically explored. Studies should establish the extent to which the scores derived from the assessment are in reasonable accordance with scores, behaviours etc. from other assessments or other settings, which relate to the constructs which are the focus of the assessment.

Validity: Principle 10

The different development teams in Cambridge Assessment should endeavour to make links across the organisation to ensure that cognate assessments are treated in a suitably similar way, and that lessons learned from the development of different assessment instruments for similar constructs are used to inform all related assessments.

Section 7 Reliability, precision and bias

Cambridge Assessment links validity and reliability closely together. While validity relates to whether the assessment is assessing what it is intended to assess and whether the inferences drawn from the results are well founded, reliability relates to the stability of the assessment, for example, whether on different occasions or using different markers the same outcomes are rated in the same way. If validity is poor, reliability in the assessment will be to little effect. If reliability is poor – and results are unstable – validity is compromised.

They are different, but equally important aspects of assessment.

The reliability of an assessment relates to its stability, consistency and precision – how it can provide repeatable outcomes for candidates with comparable characteristics (knowledge, skill, understanding) at different times and/or places.

Reliability: Principle 1

Developers, operations managers and evaluators should seek to understand the limitations of precision in an assessment, employing appropriate techniques to quantify and express clearly the estimates for reliability of assessments, with due attention to the purpose of the assessment and its uses. This should be provided by analysis at item level as well as any aggregated level of reporting.

Reliability: Principle 2

Developers, operations managers and evaluators should seek to set the precision of an assessment at a level consistent with its purpose.

Reliability: Principle 3

Developers, operations managers and evaluators should fully document the approach to estimating reliability and make a clear report of the limitations on precision to users of the outcomes of the assessment.

Discrimination is a fundamental purpose of assessment – distinguishing those who are competent at x from those who are not, those who can demonstrate knowledge of x and those who cannot, etc. This is fundamental to assessment – both summative and formative in purpose. However, alongside discrimination can appear bias – unwanted effects in assessment which give rise to unfairness. Bias occurs where there are systematic differences in assessment outcomes which are associated with being a member of a specific group – evident when people from two groups are in the same position in respect of the constructs which are the focus of the assessment, but have been given different scores. The existence of differences between groups is not unequivocal evidence of bias, since there are many ways in which members of different groups do, in reality, vary. Conversely, the lack of difference does not prove definitively that an assessment is not biased. Sensitive analysis for bias is thus a vital part of test development and evaluation, and appropriate action to remedy bias should follow.

Reliability: Principle 4

Developers, operations managers and evaluators should ensure that bias is monitored through the collection of adequate data and sufficiently analytic examination of those data.

Reliability: Principle 5

Operations managers should ensure that action is taken to remedy bias and the effects of bias where it is detected.

Concern for the detection and remediation of bias should not be limited to the technical characteristics of assessments. Bias can enter into assessment systems in respect of access and opportunity prior to the test – for example, entry decisions and approaches to preparation for the assessment. While Cambridge Assessment staff cannot take direct responsibility for remedying the causes of bias in this extended sense, it is important to recognise that this kind of bias can occur, that analysis of the outcomes of assessments can frequently help with the detection of this kind of bias, and that the results of such analysis should be made available to those who can take direct responsibility for remedying such bias.

Section 8

Administration of assessments

The manual for each assessment is the key reference for the administration of the assessment. The principles laid out below are critical in respect of the full range of assessments administered by the Group – ranging across all classes of paper-based and electronically administered assessments.

Administration: Principle 1

The assessment should be administered in line with the procedures stated in its manual, including all security arrangements, the regulations for administration of special arrangements and the operation of special considerations.

Administration: Principle 2

All assessments will be accompanied by adequate supporting materials in media readily accessible to those administering the assessment and to those taking it. This should include a clear statement of the purpose of the assessment; clear guidance on its availability and pattern of administration; sufficient advance notice of withdrawal of the assessment or its replacement; and other key elements of the regulations for the assessment. Specimen and exemplary materials should offer clear, helpful guidance to those administering the assessment and those taking it, and should be well matched to 'live' materials.

Administration: Principle 3

Assessment administration should take place in circumstances and an environment which do not impinge adversely on candidates' capacity to perform in the assessment; variation in circumstances and environment should be managed such that they are not a threat to validity.

Administration: Principle 4

All security requirements applying to the assessment should be observed. Contingency plans should be in place and documented in the manual for the assessment, in order to allow swift and effective response to security breaches. Potential risks to security should routinely be reviewed, and revised procedures promptly put in place and included in the manual for the assessment.

Administration: Principle 5

Clear instructions on how to make responses should be provided, with practice materials and practice sessions available where this provision is consistent with the aims of the assessment.

Administration: Principle 6

Where irregularities or disruptions to test administration occur, procedures should be in place for: evaluating the scale and consequences of the irregularity or disruption; activating corrective or compensatory actions; recording all details of events.

Administration: Principle 7

Incident procedures should be implemented in line with the procedures stated in the manual for the assessment, with all insights from the incident used to enhance incident management procedures. Where revised arrangements become necessary to reduce risk, manuals/guidelines should be promptly updated.

Administration: Principle 8

Robust quality control and quality assurance processes should be in place in respect of marking procedures. Marking and scoring errors should be monitored and their frequency recorded. This information should be used as part of action to minimise errors.

Administration: Principle 9

The manual for the assessment should include clear regulations for dealing with loss, absence or late arrival of evidence from assessments.

Administration: Principle 10

Results should be published in accordance with individuals' rights to confidentiality and to the schedule stated in the manual for the assessment.

Administration: Principle 11

Where information from assessments is made available to teachers and trainers for purposes such as reflecting on the effectiveness of learning programmes, this information will be made available in the form and to the schedule outlined in the manual for the assessment. Clear guidance will be supplied which states the legitimate uses to which the information can be put, with a strong emphasis on valid inferences and use. The utility of such information will be regularly reviewed, and guidance and regulations promptly updated in the light of the findings of the review.

Administration: Principle 12

Review and appeals procedures should be stated clearly in media to which candidates and those administering assessments have ready access. The review and appeals procedures should be conducted in accordance with the regulations laid down in the manual for the assessment.

Administration: Principle 13

The candidates' original outcomes from the assessment will be retained for reference until results are issued and for a sufficient period thereafter to allow for review and appeals procedures to be completed. Some outcomes may be retained for research and other purposes. Suitable consents will be obtained for the uses to which the data are put.

Administration: Principle 14

Where assessment materials are subject to high security and problems of exposure (e.g. banked items) any necessary external review should be undertaken by third parties nominated for their expertise and their capacity to preserve the security of the assessment materials.

Conclusion

The principles contained in this document collectively form the Cambridge Approach and, in line with the commitments to continuously improve assessment, will themselves be subject to review and revision. By contributing to the quality of the design, administration and evaluation of assessment, the Cambridge Approach will help to assure that the assessments provided by the Group continue to meet the needs of individuals, society and the labour market, nationally and internationally.



Every year eight million learners take our exams in 170 countries, and with 160 years' experience and the largest research facility of its kind in Europe, the Cambridge Assessment Group is chosen to be a key education partner to governments across the globe.

We are committed to education excellence and are trusted by universities, colleges, employers and governments, and are proud of the relationships we build and partnerships we form around the world.

At Cambridge Assessment, the reliability of our assessments stems from evidence-based and research-led approaches to all products, services and new developments. We have the largest research capability of its kind in Europe with more than 110 researchers across the Group.

Our researchers conduct and publish authoritative research in order to validate, improve and develop our assessments and services, and to influence thinking and policy on educational assessment nationally and internationally.

cambridgeassessment.org.uk @Cam_Assessment





Charter School Board Member Background Check Form

Certification Statement:

Note: To be completed individually by each proposed founding charter school board member. Form must be signed by hand.

If a board member has been convicted of a misdemeanor or felony other than a minor traffic violation, attach a separate sheet listing the year of the charge, the charge, the verdict, and the final disposition.

I, __Louise E Cole_____, certify that I have not been convicted of any misdemeanor or felony other than a minor traffic violation.

Signature ______, certify that I have been convicted of a misdemeanor or felony other than a minor traffic violation.

Board Member Background Check

Signature

Each member of the founding board must submit a completed background check that meets the following parameters:

1) Background check must include a Social Security Trace (which scans his/her SSN and lists every county/state of residence where that SSN has been used).

Date___

- 2) Background check must include any additional aliases that have been used by the individual.
- 3) Background check must include a completed county level check for any county returned in the Social Security Trace.
- 4) Background check must include a completed nationwide check.

Charter School Board Member Background Check Form

Certification Statement:

Note: To be completed individually by each proposed founding charter school board member. Form must be signed by hand.

If a board member has been convicted of a misdemeanor or felony other than a minor traffic violation, attach a separate sheet listing the year of the charge, the charge, the verdict, and the final disposition.

I, <u>WILLIAM B BOSLEY</u> , ce	ertify that I have not been convicted of any misdemeanor	0
felony other than a minor traffic viola	ation.	
Signature /	Date 1/28/2/	
I,	, certify that I <u>have</u> been convicted of a misdemeanor or ation.	
Signature	Date	

Board Member Background Check

Each member of the founding board must submit a completed background check that meets the following parameters:

- 1) Background check must include a Social Security Trace (which scans his/her SSN and lists every county/state of residence where that SSN has been used).
- 2) Background check must include any additional aliases that have been used by the individual.
- 3) Background check must include a completed county level check for any county returned in the Social Security Trace.
- 4) Background check must include a completed nationwide check.

William B Bosley

wbosley@gmail.com

Education

Masters of Entertainment Technology Carnegie Mellon University

Pittsburgh, PA Spring 2005

Barco USA Barco Technician Certification

Atlanta, GA Fall 2000

High End Systems High End Technical Training

> Spring 1998 Austin, TX

BA Technical Theatre Ohio State University

> Columbus, OH Fall 1994

Employment

Technical Director, Communication Managed complete redesign of Swain Hall Theatre, installed all new technology

University of North Carolina Manage all Performance Studies and department associated productions

> December 2019 Instruct and Co-Instruct classes in Production Technology

General Manager, DIL Managed the Digital Innovation Lab, associated staff and budgets University of North Carolina Designed museum technologies for Community Histories Workshop

January 2015 Delivered guest lectures and facilitated custom software development

Manager, BMRC Managed Beasley Multimedia Resource Center and student staff University of North Carolina Administered Macintosh workstations and servers for Render Farm

> January 2008 Delivered guest lectures and facilitated select special events

Faculty Established new Australia Campus

Carnegie Mellon University for the Entertainment Technology Center June 2005 Supervised branch and instructed 3 classes

Special Events Technologist Coordinated audio-visual equipment campus wide for special event use

University of Pittsburgh Authored content for University clients in a variety of media

March 2002 Supervised junior personnel and trained as necessary

Technical Manager Coordinated delivery, set up and use of all internal equipment assets

lacono Productions Facilitated sub rental of additional equipment as needed July 2000 Lead video engineer and large format projection technician

Technical Director Supervised final installation of audio-visual system for 1200 seat hall Trinity UMC Trained all staff and volunteers in the proper use of installed systems Assisted in Media Matrix programming and delay web troubleshooting August 1999

Production Manager Assistant editor and 2nd camera operator for corporate video house

Assisted in field audio and post production audio design Two-Head Video December 1998

Provided stringer services to outside production houses as needed

Service Technician Moving light field and bench technician for Branson, Mo lighting supplier Theatreworks Lighting control console technician for both DMX and AMX systems

Indoor scale pyrotechnics engineer January 1998

Professional Entertainer Co-created a two man touring show for living history venues Crafted original props and complete historical costumes

April Fools Juggling Troupe

February 1995 Received numerous awards including two "best overall entertainer"

Racial/Ethnic	Disadvantaged	l% of Students	% of English Language Learners
62.90% WHITE	15.00%	8.00%	5.00%

Balance Sheet 12/31/2021

Assets

Assets

Bank of America \$4,168.95

METAMASK

DYDX \$1,161.95 **ETH** \$39,806.14 LUNA \$36,624.33 MATIC \$13,664.48 QUICK \$7,429.90 **RUNE** \$12,816.36 \$6,723.31 UNI YGG \$3,504.74

Total METAMASK \$121,731.21 UNCHAINED CAPITAL \$52,380.74

Total Assets \$178,280.90

Total Assets \$178,280.90

Liabilities

Liabilities

Common stock \$160,000.00

LOANS, OTHER

B.S. \$102.31 P.J.M. \$10,190.60 R. H. \$10,226.13

Total LOANS, OTHER \$20,519.04

LOANS, SHAREHOLDER

P.H.M. \$5,115.60

Total LOANS, SHAREHOLDER \$5,115.60

Total Liabilities \$185,634.64

Total Liabilities \$185,634.64

Equity

Retained Losses \$7,353.74

Total Equity -\$7,353.74

To: Alamance county residents

From: Peter Morcombe

Subject: Funding "FREE" schools

Date: January 5, 2022

BACKGROUND

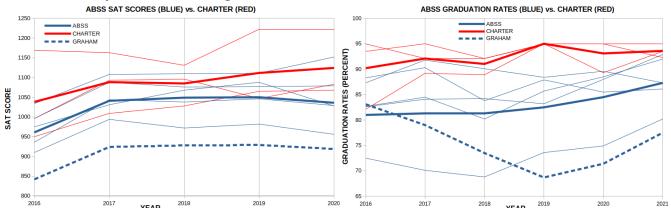
FREE is an acronym for "Financial Reform for Excellence in Education". It is a 501(c)(3) corporation dedicated to setting up and operating charter schools. From 1997 to 2001 the company created and managed six charter schools including the River Mill Academy (1998) and the Clover Garden school (2001) in Alamance county. The North Carolina government authorized only 100 charter schools so when this "Cap" was reached FREE ceased operating and handed control of its schools to locally elected boards.

OBJECTIVE

FREE plans to set up the "Unity Global Academy" to be located in Graham since the 100 school "Cap" was removed in 2011. The school will open in August 2023.

LOCATION

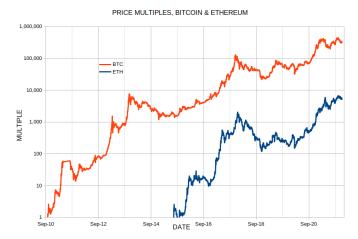
You may ask why FREE wants to locate a new school in Alamance county. You may wonder why Graham needs another charter school given that the River Mill Academy is located there. The answer is that FREE wants to serve a disadvantaged community since there is room for improvement in our county as can be seen in the two charts below. Note that the lowest performing high school in Alamance county is the Graham high school.



Jennifer Talley was recently elected mayor of Graham and she has identified seven sites in and around Graham that are suited to building a school. While FREE would prefer to open the school in a new building, rental properties are also under consideration in case our fund raising efforts fall short of what is needed to construct a new school building.

FUND RAISING

To start a new school "Up Front" funding is needed for lease pre-payments, furniture, equipment and hiring the principal. The start up funds for first six FREE schools came from federal government grants in the amount of \$100,000 per school. Since that funding may no longer be available in North Carolina it is proposed to raise start up funds from private sources. FREE builds public schools with private money. Furthermore we aim to raise funds mainly in Alamance county to ensure that the local community truly owns the school.



A new company called FREE Education Loans was set up on November 15, 2021 financed by Louise Cole and Peter Morcombe two of the founder members of FREE. The sole purpose of the new company is to raise funds to start new schools. The founders have provided \$160,000 in seed capital which is more than adequate to start the Unity Global Academy. Since the school will not open until August 2023 there is time to invest the funds and to attract additional funding in the form of donations and loans.

The initial funds have been invested in Bitcoin and Ethereum since these assets have exhibited strong growth over the last six years. Bitcoin (BTC) averaged a growth rate of 6.7% per month over the past 72 months while Ethereum (ETH) averaged 12.2% per month. The growth rates are showing signs of declining but we expect strong growth to continue for at least two more years.

LOANS

The seed money will be used as collateral to raise loans so the first round of loans will be limited to \$150,000. Conventional CDs (Certificates of Deposit) can earn at best 0.7% APR interest over a 14 month term. You have to tie your money up for more than a year to earn a miserable return. Advertisements were placed in the Alamance News offering 1.5% per month on loans with withdrawals within 5 working days. Since we allow compounding this is equivalent to 19.6% APR.

This is a promotional offer that will not be repeated.

RISK

Our investment strategy is "High Risk, High Reward" since crypto assets could decline to zero value if enough governments declare them illegal. There are other risks that are less obvious such as the possibility of crypto assets being stolen via "Hacking". Therefore we will not accept loans that represent a large proportion of an investor's net worth. We would prefer 150 loans of \$1,000 each rather than five loans of \$30,000 each. To date we have received four loans totaling \$25,000 so we can accept another \$125,000 at most.

Peter Morcombe President FREE Education Loans Inc. Graham, North Carolina

Category	Value
OrganizationName	FINANCIAL REFORM FOR EXCELLENCE IN EDUCATION INC
SecondaryName	n/r
EmployerIdentificationNumber	56-1992519
InCareOfName	FRED JOHNSON
ReportedAssetAmount	n/r
ReportedAssetAmountRange	n/r
ReportedIncomeAmount	n/r
ReportedIncomeAmountRange	n/r
ReportedForm990RevenueAmount	n/r
Address	1001 NAVAHO DR STE 213
City	RALEIGH
State	NC NC
ZipCode	27609-7335
County	Wake
Classification	Educational Organization
	This organization is an independent organization or an independent auxiliary (i.e., not affiliated with a National, Regional,
Affiliation	or Geographic grouping of organizations).
RulingDate	06/1999
Deductibility	Contributions are deductible
FoundationCategory	School
PrincipalActivity1	n/r
PrincipalActivity2	n/r
PrincipalActivity3	n/r
OrganizationType	Corporation
ExemptStatus	n/r
TaxPeriod	n/r
FilingRequirement	Form 990 - (all other) or 990EZ return
AccountingEndMonth	n/
TaxonomyCategory	Elementary, Secondary Education, K - 12

NOTE: For additional information submitted to the IRS on behalf of this organization, download the request form by clicking on this link - http://www.taxexemptworld.com/4506.pdf

On line 2 of the form enter the organization's Employer Identification Number (from row 4 of this spreadsheet) and then on line 6 check the box for requesting a copy of the organization's form 1023 or 1024 (the form filed by the org to gain tax exempt status). On line 6, check the box for copies of form 990s from previous years. The form 990 has more detailed financial specifics; however, not all tax exempt organizations are required to file an annual form 990. Enter all other info and send it in.

Thank You for the Data Download Order! TaxExemptWorld.com

Data Definitions

OrganizationName	the name of the organization
SecondaryName	another name under which the organization does business. Also used for trade names, chapter names, or local numbers for subordinate organizations of group rulings
EmployerIdentificationNumber	a nine digit number assigned by the IRS to identify an account and is also known as a Tax ID
InCareOfName	the party (officer, director, etc.) to whose attention any correspondence should be directed
ReportedAssetAmount	amount from the most recent Form 990 series return filed by the organization. Asset Amount is the Total Assets End of Year PART IV Balance Sheet Line 59 Col. (B) shown on the Form 990. This field is also from PART II, Line 25, Col. (B) EOY on Form 990EZ and PART II, Line 16, Col. (b) on Form 990PF. This field is dollars only.
ReportedAssetAmountRange ReportedIncomeAmount	the asset range shown on the most recent Form 990 series return filed by the organization amount from the most recent Form 990 series return filed by the organization. Income Amount is computer generated using PART I, Total Revenue Line 12 and adding "back in" the expense items, i.e. Line 6b (Rental Expenses) shown on the Form 990 return. On Form 990EZ it is generated using PART I, Line 9 and adding "back in" the expense items, i.e. Line 5b (Cost or Other Basis Expenses). Income Amount for Form 990 is generated using Part I, Line 10b (Cost of Goods) and adding Part I, Line 12, Col. (A) (Total Revenue Col. A) and Part IV, Line 1, Col. (G) (Cost or Other Basis). This field is dollars only.
ReportedIncomeAmountRange	the income range shown on the most recent Form 990 series return filed by the organization
ReportedForm990RevenueAmount	Amount from Form 990, part 1, line 12, or part 1, line 9, of Form 990EZ
Address	the street address where the organization is located
City	the city where the organization is located
State	the state where the organization is located
ZipCode	the zip code where the organization is located
Classification	defines the category under which an organization may be exempt
Affiliation	defines the organizational grouping
RulingDate	the month and year of a ruling or determination letter recognizing the organization's exempt status
Deductibility	signifies whether contributions made to an organization are deductible
FoundationCategory	describes the nonprofit classification of the organization
PrincipalActivity1	An organization may list up to three activity codes on Forms 1023 and 1024. These are codes which reflect an organization's purposes, activities, operations, or type.
PrincipalActivity2	see definition for PrincipalActivity1
PrincipalActivity3	see definition for PrincipalActivity1
OrganizationType	the type of organization according to IRS records
ExemptStatus	Type of exemption held by the organization
AdvancedRulingExpirationDate	A charitable organization exempt under IRC 501(c)(3) whose status as a public charity (rather than a private foundation) has not been determined generally will be allowed to operate as a public charity for a specified period of time. At the end of this time frame (expiration date), a final determination will be made as to the proper classification of the organization. This shows the month and year when an advance ruling is to expire.
TaxPeriod	the tax period of the latest return filed
FilingRequirement	indicates the primary return(s) the organization is required to file
AccountingEndMonth	designates the accounting period ending date (month) of the organization
TaxonomyCategory	used to classify an exempt Internal Revenue Code 501 (c)(3) organization according to the National Taxonomy of Exempt Entities (NTEE)



WHAT IS "FREE"

- Financial
- > Reform for
- **Excellence** in
- > Education

WHAT DO WE DO?

- WE BUILD PUBLIC SCHOOLS
 WITH PRIVATE MONEY
- > TWO IN OUR FIRST YEAR
- > THREE IN OUR SECOND
- > SAVING MILLIONS OF \$\$\$\$\$\$ FOR COUNTY GOVERNMENTS

WHAT SCHOOLS?

- RIVER MILL ACADEMY
- > CLOVER GARDEN SCHOOL
- > TWO IN ORANGE COUNTY
- > ONE IN DURHAM COUNTY
- > ONE IN CHATHAM COUNTY

WHAT NEXT?

- UNITY GLOBAL ACADEMY IN ALAMANCE COUNTY
- > OPENING IN AUGUST 2023
- > 450 STUDENTS, K-8
- **GROWING TO 650 IN 2028**
- > WE ARE THE NARWHALS!

GRANTS = \$0

- > ONE \$10 MILLION SCHOOL
- > WE MAY FAIL
- > THEN PLAN "B"
- > RENT A BUILDING
- > ALAMANCE COUNTY SAVES TEN MILLION DOLLARS

GRANTS = \$1 MILLION

- > ONE \$10 MILLION SCHOOL
- > WE WILL SUCCEED
- > POSSIBLE PLAN "C"
- > ONE \$15 MILLION BUILDING
- > ALAMANCE COUNTY SAVES BETWEEN \$10 & \$15 MILLION

GRANTS = \$2 MILLION

- > ONE \$15 MILLION SCHOOL
- > WE WILL SUCCEED
- > POSSIBLE PLAN "D"
- > TWO SCHOOL BUILDINGS
- > ALAMANCE COUNTY SAVES BETWEEN \$20 & \$30 MILLION

HOW DO WE DO IT?

- > SEED MONEY FROM DONORS \$160,000 TO DATE
- > INVESTED IN "EMERGING CRYPTO" ASSETS
- > WE OFFER 19.6% APR ON LOANS
- > \$15,000 APPLIED FOR TO DATE
- > MONEY AVAILABLE IN 4-5 DAYS

OUR NOBLE PURPOSE

Improving K-12 education one school at a time.

Always do right. This will gratify some people and astonish the rest.

Mark Twain

STATE OF NORTH CAROLINA DEPARTMENT OF THE SECRETARY OF STATE

STATEMENT OF CHANGE OF REGISTERED OFFICE AND/OR REGISTERED AGENT

Pursuant to §55D-31 of the General Statutes of North Carolina, the undersigned entity submits the following for the purpose of changing its registered office and/or registered agent in the State of North Carolina.

INFORMATION	CURRENTLY ON FILE
The name of the entity is: Financial Reform for Exce	ellence in Education
The street address and county of the entity's registered office curre	
	indy on the is.
Number and Street: 304 Sutton Place	000
City: Mebane State: NC Zip Code: 27	302 County: Alamance
The mailing address if different from the street address of the regi	istered office currently on file is:
Jumber and Street:	2635
City: State: NC Zip Code:	County:
The name of the current registered agent is: Peter H.	Morcombe
NEW INFOR	
. The street address and county of the new registered office of the	
(complete this item only if the address of the registered office in	
Number and Street: 474 Thompson Ro	ad
City: Graham State: NC Zip Code: 2	7253 County: Alamance
The mailing address if different from the street address of the (complete this item only if the address of the registered office	
	W-
Number and Street:	**
City: State: NC Zip Code:	County:
The name of the new registered agent and the new agent's con (complete this item only if the name of the registered agent is	
Type or Print Name of New Agent	* Signature & Title
The address of the entity's registered office and the address of will be identical.	the business office of its registered agent, as changed,
will be identical.This statement will be effective upon filing, unless a date and/	or time is specified: Financial Reform for Excellence in Education
will be identical. This statement will be effective upon filing, unless a date and/ This is the 12 day of July , 2021.	or time is specified: Financial Reform for Excellence in Education
will be identical.This statement will be effective upon filing, unless a date and/	or time is specified: Financial Reform for Excellence in Education MEntity/Name
will be identical. This statement will be effective upon filing, unless a date and/ This is the 12 day of July , 2021.	or time is specified: Financial Reform for Excellence in Education

P.O. BOX 29622

RALEIGH, NC 27626-0622

Form BE-06

BUSINESS REGISTRATION DIVISION

Revised July 2017

• Upload a PDF Filing • Order a Document Online • Add Entity to My Email Notification List • View Filings

Non-Profit Corporation

Legal Name

FINANCIAL REFORM FOR EXCELLENCE IN EDUCATION

Information

SosId: 0408046

Status: Current-Active ①
Date Formed: 10/10/1996
Citizenship: Domestic

Annual Report Due Date:

CurrentAnnual Report Status:

Registered Agent: Morcombe, Peter Haley

Addresses

Reg Office	Reg Mailing	Principal Office
474 Thompson Road	474 Thompson Road	Cole Park Plaza 11500-i
Graham, NC 27253	Graham, NC 27253	Chapel Hill, NC 27514

Mailing

PO Box 5147 Chapel Hill, NC 27514

Officers

1 of 1 3/19/22, 00:46



SENATOR AMY GALEY 24TH DISTRICT

COMMITTEES:

APPROPRIATIONS ON JUSTICE AND PUBLIC SAFETY EDUCATION/HIGHER EDUCATION

STATE & LOCAL GOVERNMENT

2111 LEGISLATIVE BUILDING

16 WEST JONES STREET

RALEIGH, NC 27601

(919) 301-1446

EMAIL:

AMY.GALEY@NCLEG.GOV

April 14, 2022

Subject: Emergency Approval for the building of the Unity Global Academy

To Whom It May Concern:

As a Senator, I've seen the impact of academic institutions in creating opportunities for students from elementary school through college. When children have access to a thriving environment for learning, the doors of opportunity open. Charter schools gain the interest and support of parents, especially in growing communities like Graham. Financial Reform for Excellence in Education (FREE) intends to provide families in this community with a charter school to meet the growing demand for public school alternatives.

FREE's efforts have my unequivocal support in securing emergency approval for building the Unity Global Academy. With the growth of the Graham area and the rising regard for school choice, the Unity Global Academy will provide value to the community both academically and socioeconomically. Parents are willing to travel long distances or even move to ensure that their children attend a school with academic excellence. This school will add to the value within the community and to the appeal of Graham to both current and potential residents. Better access to highly valued learning institutions and increased student opportunities are all welcome and needed elements in this area.

My support of FREE's application for emergency approval is not a statement on the quality of traditional public schools in Graham. Regardless of the opportunities available at a traditional public school, it may not be a good fit for a particular child. Not every school is a learning place for all children. Some children, for whatever reason, need an alternative where their needs will be met. Charter schools are an important option to offer to families unable to afford or with other reasons not to choose private schools.

Financial Reform for Excellence in Education has my strongest support for building the Unity Global Academy. Enlarging the educational possibilities for students within Graham will benefit not only individual families but also the greater community.

Very best regards,

any 1 goly

Senator Amy S. Galey

ASG:sgc



Developing Assessment Profiles for Mathematically Gifted Children With Learning Difficulties at Three Schools in Cambridgeshire, England

Anies Al-Hroub University of Cambridge

This paper focuses on critical issues related to the identification of mathematically gifted children with learning difficulties (LDs). One purpose of the study is to broaden teachers' and educators' insight into the identification of gifted students with LDs, sometimes referred to as dual-exceptional children. A multiple case study approach was adopted and 5 case study profiles of mathematically gifted students with LDs in Years 4–6, ages 9 to 11 years and 5 months, were developed. An assessment plan was used to combine aspects of LDs and giftedness in an attempt to provide a multidimensional evaluation. The students received a multidimensional assessment, which indicates that psychometric test scores need to be supplemented with dynamic and informal assessments; historical data; task analysis of permanent products; and information from parents, teachers, and students.

The conceptual approach of this research subsumes the belief that giftedness and learning difficulties (LDs) can occur concurrently in the same individual. This understanding emerged from using broader definitions of giftedness and learning difficulties, which allow for students with both exceptionalities to be identified. The predominant belief since Terman's (1925) time has been that gifted children uniformly score high on intelligence tests and perform well in school (Brody & Mills, 1997), and that demonstrating a high potential in one area means that a child has high potential in other areas. This simplistic understanding was challenged by the emergence of more sophisticated definitions of giftedness, such as those of Marland (1972), in which more populations were included into the gifted category. The direct link between high performance or IQ and being gifted was lost. However, the new and broader definitions have caused

confusion in student selection, identification, characteristics, and program planning.

During the last three decades, increasing attention has been given to the pressing question of "dual-exceptional" children, or more able students who also have specific LDs. According to Baum (1989) and Brody and Mills (1997), these dual-exceptional children who remain unrecognized can be classified into at least three subgroups. The first subgroup comprises students with hidden LDs, including students who are identified as gifted yet exhibit difficulties in school or, as Baum described them, "gifted students who have subtle LDs" (p. 1). This group is easily identified as gifted; however, the gap between what is expected and their actual performance is often wide (Fetzer, 2000). The second subgroup consists of students with hidden giftedness, students whose LDs are severe enough that they have been identified as having LDs, but whose high abilities have never been addressed or recognized. They are first noticed for what they cannot do, rather than for the talent they also demonstrate (Brody & Mills, 1997; Little, 2001). Students in the third subgroup and "perhaps the largest group of non-served and unidentified students" (Brody & Mills, 1997, p. 2) are those whose high abilities and LDs mask each other (Baum, 1989; Brody & Mills, 1997). These students sit in regular classrooms, are not considered as qualifying for services provided for students who are gifted or have LDs, and are regarded as possessing average abilities (Brody & Mills, 1997).

In order to identify dual-exceptional students, a number of assessment strategies are recommended in the literature. For example, a multidimensional approach to identification is recommended by Lazarus (1989) to determine the areas of strength and weakness of gifted children with LDs. The rationale for using a multidimensional approach is as follows: (a) The British version of the Wechsler Intelligence Scale for Children (WISC-III^{UK}) is a good means of identifying cognitive strengths and weaknesses; (b) Verbal, Performance, or Full-Scale scores, or Verbal-Performance discrepancies tend to obscure the subtly distinctive patterns that characterize and identify the various gifted/LD groups; (c) a dynamic assessment approach can provide a means of assessing potential development of dyslexic and underserved gifted students and of determining the discrepancy between potential and performance (Haywood & Lidz, 2007; Kanevsky, 2001; Kirschenbaum,

1998); and (d) important information can be obtained from parents and teachers about the academic and social activities of the children, which may not be demonstrated using standardized tests.

The current research is grounded in two main approaches: the use of broad definitions of giftedness and LDs, which are widely used in the Cambridgeshire County schools, the location of the study; and the tendency to use a multidimensional assessment without which any approach to assess dual-exceptional students will remain inadequate. The purpose of this research was twofold: (1) to investigate the efficacy of a multidimensional assessment that encompasses informal, psychometric, and dynamic assessment for identifying mathematically gifted children with specific learning difficulties; and (2) to develop assessment profiles for those students based on their distinctive literacy patterns and cognitive strengths and weaknesses.

Identification of Gifted Students With Learning Difficulties

In the field of exceptional and dual-exceptional children, identification is always related to definitions. Accordingly, nebulous definitions of giftedness and learning difficulties generate problems in identifying gifted children with LDs. The major difficulty in identifying those students is that there are many gifted children with LDs who fail to meet the qualification requirements for either gifted programs or special needs services. Research has shown that teachers are much more likely to refer gifted students who do not have LDs than gifted students who do have LDs for placement in gifted and talented programs (Minner, 1990), because students with LDs who are gifted rarely show consistently high academic achievement and usually go unrecognized as being gifted and eligible for special programs (Baum, 1989; Beckley, 1998; Brody & Mills, 1997; Ruban & Reis, 2005).

Some educators (e.g., Brody & Mills, 1997; Fetzer, 2000) have suggested a flexible, multidimensional approach to identification, which they argue is necessary to determine areas of strength and weakness. This approach includes an individual test of intelligence, academic tests to determine the discrepancy between potential and performance, a test of creativity to assess abilities that may not emerge from

cognitive ability measures, and dynamic assessment in addition to teachers' and parents' reports (Thomson, 2001). Recently, McCoach, Kehle, Bray, and Siegle (2004) have proposed a comprehensive longitudinal system for identifying gifted students with LDs with behavioral observation, an individual intelligence test, measures of cognitive processing, and a full achievement battery. The proposed identification system also suggests assessing the student's level of functioning in the regular classroom environment, using curriculum-based assessment, and interviewing students to assess their perceptions and attitudes toward academic work.

Baum and Owen (2004) reported that, to recognize the potential for gifted behavior in students with LDs, educators should generally approach the identification process in two ways: (a) *a priori* identification, entailing collection and analysis of test data and interview information about students; and (b) dynamic identification, involving the use of activities purposely designed to elicit creative responses and signal possible areas of student talent. Four defining characteristics of these students should be considered (Al-Hroub, 2005; Brody & Mills, 1997), including evidence of an outstanding talent or ability, evidence of an aptitude-achievement discrepancy, evidence of verbal-performance IQ discrepancy, and evidence of a processing deficit.

Evidence of an Outstanding Talent or Ability

Brody and Mills (1997) suggested the necessity of using a variety of assessments, including intelligence tests, aptitude and achievement tests, dynamic assessment, teacher nominations, creativity tests, interviews, and behavioral observations. Munro (2002) recommended that the identification process should involve collecting data in a range of areas, including evidence of: (a) superior cognitive or reasoning ability; (b) academic aptitude, probably in areas outside the school; (c) creative or productive thinking, (d) superior achievement in areas outside the school; and (e) a high level of intrinsic motivation to learn in areas of interest.

Evidence of an Aptitude-Achievement Discrepancy

McCoach et al. (2004) pointed out that many researchers and psychologists rely on the use of an IQ-achievement discrepancy formula to identify gifted students with LDs, and that if this approach is eliminated by the American federal definition of LDs, identifying these students becomes increasingly difficult. According to McCoach et al., gifted students with LDs may indeed exhibit relative discrepancies between their potential and performance, but they may not exhibit academic deficits when compared to their peers. Therefore, gifted students who achieve average levels or slightly below average levels academically are difficult to diagnose as gifted with LDs without inspecting the discrepancy between their superior potential and their average academic performance.

Kavale (2002) indicated that intellectual ability-achievement discrepancy is the operational definition of underachievement and, when present, reliably and appropriately documents the presence of underachievement, not LDs. However, when placed in the proper educational context, any arguments against the use of discrepancy to determine LDs are eliminated. It would, therefore, be a mistake to ignore discrepancy when considering the best means of defining the constructs.

Evidence of Verbal-Performance IQ Discrepancy

In the field of gifted children with LDs, numerous researchers (e.g., Barton & Starnes, 1989; Kaufman, 1994; Ryckman, 1981; Schiff, Kaufman, & Kaufman, 1981; Waldron & Saphire, 1990) have shown that a discrepancy is notable between the verbal and performance parts of the second and third American versions of the Wechsler Intelligence Scale for Children (WISC-R and WISC-III). Silverman (1983) indicated that gifted students with LDs may have a 15-point discrepancy between verbal and performance scores VIQ-PIQ on the WISC-R. The WISC-III manual (Wechsler, 1992) gives values for statistical significance to determine whether the VIQ-PIQ discrepancy is significant. The overall values for discrepancy are 11 points at the .05 level and 15 points at the .01 level (Kaufman, 1994). Al-Hroub (2005) reported a significant (VIQ-PIQ) discrepancy, with verbal scores higher for a group of mathematically gifted students with LDs,

whereas Waldron and Saphire (1990) found that significant discrepancies between verbal and performance scores may not be the best indicator of a learning difficulty in students. Brody and Mills (1997) reported that there are inconsistencies in magnitude or direction of verbal and performance IQ discrepancy among studies that characterized giftedness with LDs.

Evidence of a Processing Deficit

It is crucial to distinguish between LDs and other learning problems caused by factors such as general low ability, lack of opportunity to learn, poor teaching, emotional problems, and inappropriate curriculum. Munro (2002) stressed the difficulty in identifying this condition because low achievement may be due to a range of causes, such as Attention Deficit/Hyperactivity Disorder (ADHD), socioeconomic status or culture, and/or LDs. Differentiating diagnosis is therefore very important when making decisions regarding the need for identification and intervention (Beckley, 1998; Brody & Mills, 1997).

Who Are Mathematically Gifted Students?

Several theorists argued that there is no universally accepted definition of general giftedness (Gagné, 1995; Renzulli, 1977; Sternberg & Davidson, 2005) that extends to mathematics (Reed, 2004). Sowell, Zeigler, Bergwall, and Cartwright (1990) documented a variety of literature-based objectives to describe exceptionally gifted mathematics students, characterizing them as "promising," "high-end learners," "gifted and talented," and "academically superior" (p. 147). Miller (1990) pointed out that descriptions such as "mathematically talented," "mathematically gifted," and "highly able in mathematics" are generally used to refer to students whose mathematical ability places them in the top 2% or 3% of the population. Despite such different descriptions of gifted students with high mathematical potential, Sowell et al. argued that mathematically gifted students are those who are precociously able to solve mathematical problems that are typically accomplished by older students or engage in qualitatively different mathematical thinking processes than those of their classmates or

chronological peers. Krutetskii (1976) contended that the tendency to see the world through mathematical eyes is obvious in students who are gifted in mathematics. After a careful review of the literature, Krutetskii arrived at the following definition: "Mathematical giftedness is a set of testable abilities of an individual. If she/he scores high in nearly all of these abilities, there is a high possibility of successful creative work later on in the mathematical field and related areas" (as cited in Wagner & Zimmermann, 1986, p. 246).

Krutetskii (1976) listed two characteristics that mathematically gifted students have the ability to do: (a) be persistent in their commitment to work and (b) display creativity and flexibility in their search for solutions to mathematical problems. This approach reflects Renzulli's (1977) three-ring definition of giftedness, which has task commitment and creativity as two of the cluster traits. Ball (1993) reproduced Renzulli's definition to characterize mathematically gifted students as those who have (a) above-average ability; (b) creativity in mathematics, which is the ability to respond with flexibility and creativity to a mathematical problem; and (c) task commitment in their pursuit of a solution to a mathematical problem.

In the U.S., the National Council of Teachers of Mathematics (NCTM) established a task force in 1994 that purposely chose the word *promising* rather than *gifted* or *talented* to emphasize the goal of including students who have been previously excluded because of lack of opportunity or experience (Gavin & Adelson, 2008; Sheffield, 1999). The task force defined promising students as "those who have the potential to become leaders and problem solvers of the future" (Sheffield, 1999, p. 310).

Mathematically Gifted and Learning Difficulties

Some mathematically gifted students do not necessarily demonstrate outstanding academic achievement, display enthusiasm toward school mathematics programs, or obtain top grades in mathematics. There are many possible reasons why these students may not be doing well, but often it is, at least in part, because of a mismatch between the needs of the student and the mathematically gifted programs. Many students refuse, or are unable, to conform to the expectations of programs (Miller, 1990), which can be a result of their specific LDs.

According to Krutetskii's (1976) concept, mathematically gifted students may show an outstanding talent in mathematics accompanied by deficits in other areas. An instance of early mathematical giftedness was described in 1964 by psychologists in the German Democratic Republic. S. Reiner's parents first paid attention to his abilities when he was 5 years old. After 1 year at school, he went directly into the second grade. According to the experimenters, although Reiner showed remarkable skills in arithmetic and problem solving, he had considerable difficulty in studying language and spelling (Krutetskii, 1976). Leonardo da Vinci (1452–1519), the remarkable Florentine artist, architect, engineer, and mathematician, is another case of dyslexic genius. An example of his "mirror writing," a distinctive symptom of LDs, may be seen in his notebooks exhibited at the British Museum in London (Aaron, Joshi, & Ocker, 2004).

A controlled comparison study of the performance of dyslexics in mathematics was carried out by Steeves (1983). Her subjects were 54 dyslexic students between the ages of 10 and 14 years, and 54 suitably matched controls. The researcher divided them into four groups, namely, (a) dyslexic high (DH), dyslexics with a high score on the Raven's Standard Progressive Matrices; (b) dyslexic average (DA), dyslexics with an average score on the Raven's; (c) non-dyslexics in a mathematics class for those of high ability (NH); and (d) non-dyslexics in a mathematics class for those of average ability (NA). The DH group was at the same level as the NH group in the Raven's; in a mathematics school test, however, they were on a level with the NA group, with lower scores than both of the non-dyslexic groups in the Wechsler Memory Test. The DA group was on a level with the NA group in the Raven's Standard Progressive Matrices, but below them in the other two tests, and was particularly weak in the Wechsler Memory Test.

Joffe (1981) gave a test of computation to 102 students ages 8–17. Half of them were dyslexics, and the other half was a control group. All had been found to be average or above in intellectual abilities in standardized tests. Ten percent of the dyslexics scored very high, whereas 60% scored well below expectation. Lewis, Hitch, and Walker (1994) explored the incidence of arithmetic difficulties within a population of more than 1,000 nine- to ten-year-olds. Approximately 4% of the sample had reading difficulties only, 2.3% had arithmetic and reading difficulties, and 1.3% had arithmetic difficulties only.

Research Questions

The issue addressed by the current research is whether multidimensional assessment can be an efficient approach to identify mathematical giftedness and LDs in the same students. A multiple case study approach was used to explore the following research questions:

- 1. What is the efficacy of using specific multiple measures to identify mathematically gifted students with learning difficulties?
- 2. What is the special academic behavior of mathematically gifted children with learning difficulties?
- 3. What is the nature of the relationship between students' mathematical abilities and their learning difficulties?

Method

Participants

The researcher identified five students, three males and two females, aged 9 years to 11 years and 5 months, from Years (grades) 4–6 at three primary schools in Cambridgeshire in the UK. All students' names have been changed to ensure anonymity. In the process of selecting the five cases, eight students were nominated by their teachers as being mathematically gifted with LDs. Two students were excluded; one of them showed mathematical giftedness with no LDs, and the other showed severe writing and spelling difficulties and a moderate difficulty in reading, but no evidence of high ability in mathematics.

The participants were chosen from Years (grades) 4–6 because students who have specific LDs or high ability in mathematics are difficult to recognize or identify in the earlier years of schooling. All of the students were chosen from relatively advantaged backgrounds, with English as their first language. The subjects were selected from a total population of 80 students across Years 4 to 6 in the three selected schools. Each of their classes was made up of no more than 32 students.

Students were selected according to the following criteria: recentness of placement or re-evaluation data, psychological and school reports indicating the possibility or diagnosis of high mathematical ability and/or specific LDs affecting the student's academic performance, and the willingness of the parents and schools to participate in the research.

Data Collection

A combination of six techniques for identification was used; some to identify giftedness and others to identify LDs. Each student was evaluated formally and informally for approximately 10–15 hours over 6–8 sessions. The formal and informal assessments were conducted in the following order: (a) documentary evidence; (b) teacher and parent interviews; (c) the Wechsler Intelligence Scale for Children (WISC-III^{UK}; Wechsler, 1992); (d) the Dyslexia Screening Test (DST; Fawcett & Nicolson, 1996); (e) the Neale Analysis of Reading Ability (revised British ed.; Neale, 1989); and (f) dynamic assessment involving a mathematics achievement test.

Documentary evidence. Permission was obtained from both parents and head teachers to ensure access to all information that was of clear relevance to the education of the student. The information obtained from the records included familial information, medical background, school history, cognitive test scores, aptitude test scores, psychological reports, achievement test results, teachers' anecdotal records, student's paperwork, and special education files.

Parent and teacher interviews. Interviews were conducted with the parents and teachers, as they were considered to be the best source of information about the students. In the first stage, teachers and parents were asked to complete a questionnaire. The parents were given a case history form that was designed to demonstrate that familial, physical, psychological, social, and educational histories were the main areas that were to be discussed with them. Likewise, the teachers were given a form to complete about the student's academic level, special interests, and his or her behavioral patterns. Teacher interviews focused on students' strengths and weaknesses in reading, writing and spelling, in addition to their high potential in solving mathematical problems, all of which are important in identifying any aspects of

mathematical giftedness or LDs. In the second stage, teachers and parents were asked to talk about issues they felt were significant in relation to the development and education of the child concerned.

The Wechsler Intelligence Scale for Children. The WISC-III^{UK} (Wechsler, 1992) is an individually administered clinical instrument used to assess (over the course of 50–70 minutes) the intellectual ability of children ages 6–16. It consists of 13 subtests in 2 scales: verbal (6 subtests) and performance (7 subtests). Of the 13 subtests, 10 are required, 2 supplementary, and 1 is optional. Only the required subtests are used to determine IQ scores. Verbal scale subtests require students to listen to questions and answer orally. The verbal subtests are: (a) Information, (b) Similarities, (c) Arithmetic, (d) Vocabulary, (e) Comprehension, and (f) Digit Span (Supplementary). Performance subtests are visual-motor tasks that comprise: (a) Picture Completion, (b) Picture Arrangement, (c) Block Design, (d) Object Assembly, (e) Coding, (f) Symbol Search (optional), and (g) Mazes (supplementary).

In the field of giftedness and LDs, the WISC-III^{UK} is often used to gain an overall estimate of the student's global intellectual strengths and weaknesses in specific areas of aptitude. In research studies of the gifted, the sample is usually limited to those with at least one IQ score at 130 or above (Montgomery, 1996). Silverman (1989) suggested that the level for inclusion into these gifted education programs should be dropped by 10 points in the case of those with a LD. Accordingly, students in the current research study who scored 120 or above on the full IQ scale were labeled gifted.

The Dyslexia Screening Test. The Dyslexia Screening Test (DST; Fawcett, & Nicolson, 1996) provides a profile of the strengths and weaknesses often associated with dyslexia. This test is designed to identify children ages 6–16 at risk of reading failure early enough to allow children to be given extra in-school support. The DST takes approximately 30 minutes overall to administer, which is within the attention span of most children in this age group. This instrument has been designed for use by school professionals (teachers or special needs coordinators) rather than psychologists, clinical psychologists, or speech and language specialists.

The DST test battery includes three attainment and eight diagnostic subtests. The three attainment subtests are: (a) One-Minute Reading Test—measures fluency and accuracy; (b) Two-Minute

Spelling Test—gives an index of spelling fluency; and (c) One-Minute Writing Test—provides an index of speed in copying text.

The attainment subtests cover the three critical requirements for diagnosing dyslexia, however, the diagnostic subtests complement them by covering the range of skills that are known to be affected in dyslexia, and the profile of difficulties that can be used to interpret the causes of attainment problems. These subtests are: (a) Rapid Naming—measures the time it takes to name a page full of outline drawings; (b) Bead Threading—assesses hand and eye coordination; (c) Postural Stability—provides an index of balance ability; (d) Phonemic Segmentation—assesses phonological skills and working memory; (e) Backwards Digit Span Test—assesses working memory; (f) Nonsense Passage Reading—assesses the ability to read unfamiliar words; (g) Verbal Fluency—assesses verbal fluency; and (h) Semantic Fluency—assesses semantic fluency (Fawcett & Nicolson, 1996).

The test-retest stability was assessed, and a very high correlation reliability, higher than 0.90, was obtained for attainment subtests and Nonsense Passage Reading. Correlation reliability was high, 0.80 to 0.88, for Rapid Naming, Phonemic Segmentation, Backwards Digit Span, and Verbal Fluency, and satisfactory (above 0.70) for Beading Threading, Postural Stability, and Semantic Fluency. Furthermore, interrater reliability for two experienced testers was 0.98, whereas the interrater reliability between the inexperienced tester and each of the experienced testers was 0.94. Construct validity was assessed by administering the DST to a group of 17 children previously diagnosed as dyslexic. The results show that all but two of the children had an "at risk quotient" of 1 or more, as would be expected for a screening diagnosis of a child being "at risk" (Fawcett & Nicolson, 1996).

The Neale Analysis of Reading Ability. The Neale Analysis of Reading Ability (R-British; Neale, 1989) is both a standardized reading test and a diagnostic test. It can be used to measure the reading ability of most children between the ages of 6 and 12. The Neale Analysis consists of three forms. Two are parallel-standardized tests (Form 1 and Form 2) of six graded passages, and the third form is the Diagnostic Tutor Form, which also has six graded passages and an extension for more advanced readers. The parallel standardized tests allow the teacher to carry out a miscue analysis and monitor children's performance without their becoming familiar with the passages. Each

passage is a complete narrative written according to the interests and age level to which it is assigned.

The Diagnostic Tutor Form enables miscue analysis and both criterion-referenced and diagnostic assessments to be undertaken. There are four comprehension questions for the first passage in each form, and eight comprehension questions for the subsequent graded passages. Unlike Forms 1 and 2, the Diagnostic Tutor Form is not supplied with norms (Neale, 1989). Therefore, Form 1 was used in the current study in order to grade the students' reading ability.

The Neale Analysis Manual (Neale, 1989) reports three main types of reliability measure for the test: stability (parallel forms) reliability, internal consistency, and standard error of measurement of the test. The correlation coefficient between the parallel Forms 1 and 2 suggests high stability, between 0.67 and 0.97 at all age levels. The results for Comprehension Reading Age, at all age levels, suggest high levels, between 0.90-0.93, and lower levels, between 0.81-0.87, for the Accuracy Reading of internal consistency for both forms. In the standard error of measurement, the reliability coefficient is very high for the aspects of Accuracy (5.37 and 5.36) and Comprehension (2.98 and 2.87), and high in the Rate (13.73 and 13.2). However, the original edition of the test (Neale, 1958) has been correlated significantly with a number of well-standardized reading scales (e.g., Ballard One-Minute Test, the Holborn Reading Scale, Vernon Word Reading Tests, Burt Spelling Test, Schonell English Usage and Vocabulary Tests, Peel English tests, Kelvin Measurement of Reading Ability, the Junior Simplex Intelligence Scale, and Sleight Non-Verbal Intelligence Test) and shows high intercorrelations, providing evidence for the construct-related validity of the test. The predictive validity of the same edition has been thoroughly investigated.

Dynamic Assessment (DA): The mathematics achievement test. Dynamic assessment (DA) is an interactive approach to conducting assessments within the gifted and/or special education domain that focuses on the ability of the learner to respond to intervention. One of the main purposes of DA is to determine whether students who exhibit achievement deficits have cognitive strengths that are not readily observed (Brown & Ferrara, 1986).

Procedure

A pretest-intervene-posttest method was used to determine whether students who exhibit performance deficits in mathematics have cognitive strengths that are not readily observed. This particular method of assessment comprises two parts: in the first part, a typically devised test is applied to the child under study, and in the second part, a parallel form is applied to the same child after providing him or her with particular teaching in the area of skills and problem solving relating to what he or she has experienced in the pretraining test.

In the current study, the mathematical pre- and posttests were derived from items in the Standardised National Curriculum Mathematics Test, which is administered to Years 4–7 at the national level in the UK. These tests were designed to identify mathematically gifted students. Information about their reliability and validity is unavailable. In the pre- and posttests, all of the students were given five mathematical tasks presented in the same order. The tasks, in order of presentation, included: (a) calculation operations, (b) problem solving, (c) time calculations, (d) geometry, and (e) linear equations.

Calculation operations of number facts were given first so that students' selection of strategies would not be biased by subsequent tasks. The order of the remaining tasks was selected to provide variety and to sustain students' interest. These tasks were difficult enough to provide opportunities for the most able students to show what they could do. Eight students from classes in Years 4–6 were nominated by their head teachers and were given different versions of mathematical pre- and posttests. The questions were read orally to all students. They were told that the problems were challenging and that they should not worry if they found some of them difficult to solve. Because the use of calculators is not allowed in the Standardised National Curriculum Mathematics Test for Years 4–6, no calculators were provided for the students.

Individual teaching related to the nature of the challenging problems in the pretest was provided for all nominated students. The teaching stage lasted approximately 90 minutes (45 minutes for each session with a break of 30 minutes) and was aimed at teaching effective strategies for problem solving and providing the subjects with immediate feedback on their solution strategies. A correct answer was rewarded with positive feedback. When an answer was wrong, the

subject received additional mediation until the correct answer was achieved. In order to verify a true comprehension of the mathematical problems, the subjects were asked to explain their methods for solving problems. Questions were also asked in those cases in which the subject had given a wrong answer. The period of the teaching stage was approximately the same for all subjects, with variations of 5 to 7 minutes. Whereas James, Maria, and Annel received 90 minutes of teaching, Richard and William were able to understand the mathematical concepts in 85 and 83 minutes, respectively. The major means of judging the students' mathematical giftedness was the observation of their learning progress and gained scores, as evidenced by the results of the mathematical posttest.

Results

The results of the standardized test scores used to identify and characterize the subjects of the study are listed in Table 1. Both the standardized test results and the information obtained from dynamic assessment involving mathematics tests, as well as interviews, are stated in the case study histories.

Data Analysis

The findings in Table 1 reveal a significant (VIQ-PIQ) discrepancy of 25 points, with verbal scores higher for the five cases of the present study. Anne was the only student who showed no significant discrepancy between the two subscales, whereas William's subscale scores showed a discrepancy of 44 points. His scores in the VIQ and PIQ subscales made it seem as if two different students had taken the test: one average and one gifted. The findings support the argument that the traditional use of a 15-point (at the .01 level) or an 11-point (at the .05 level) discrepancy between Verbal and Performance IQ scores could be a helpful, but inadequate, indicator of the coexistence of learning difficulties and mathematical giftedness (Al-Hroub, 2005). Information about familial, medical, psychological, and educational

All names used are pseudonyms.

lable 1			
Scores of the H	ive Case Studies	in the Standa	rdized Tests

St	andardized Tests	Case 1: James	Case 2: Maria	Case 3: William	Case 4: Richard	Case 5: Anne
	Full Scale IQ	138	126	124	119	122
WISC- III ^{UK *}	Verbal Scale IQ	147	131	140	130	120
	Performance Scale IQ	119	110	96	99	119
	Chronological Age	09:07	09:01	11:05	10:00	10:00
Neale Analysis	Reading Rate Age	08:11	09:11	13:00+	10:05	09:11
Ne Ana	Accuracy Age	12:06	08:07	13:00+	13:00	13:00
	Comprehension Age	13:00+	10:02	13:00+	08:05	11:01
	Rapid Naming	+	-	+	+	0
*	Bead Threading	+	0	-	0	+
JST	One-Minute Reading	0	0	+	+	0
st (I	Postural Stability	-	-		-	0
g Te	Phonetic Segment	0	+	+	+	0
Ë	Two-Minute Spelling	-		0	0	+
cree	Backwards Span	+	+	+	+	+
ia S	Nonsense Passage	+	+	+	+	+
Dyslexia Screening Test (DST) **	One-Minute Writing	-			-	+
٥	Verbal Fluency	+	+	0	+	0
	Semantic Fluency	+	0	+	0	+

^{*} WISC-III^{UK} IQ scores 90-109 = Average, 110-119 = High average, 120-129 = Superior, 130 = Average, 13

histories of the subjects was presented to assist in analyzing and interpreting the findings of the scales' scores.

Case study 1: James. At the time of the study, James was 9 years and 7 months old and in a Year 4 class. His parents separated in 2001. James lived at home with his mother and brother in a socioeconomically advantaged area. He saw his father once or twice a week. His mother was an image consultant and make-up artist; his father a consulting pediatrician. His only brother, who was in Year 6, had been evaluated by a private psychologist as dyslexic, dyspraxic, and suffering from Asperger's syndrome.

James attended a problem-solving workshop in mathematics and received regular teaching in the other subjects in a state school setting.

James attended a nursery school, but since that time had not received any special services related to LDs at school. James was described by his teacher as "very able in mathematics, good at science and history." He was taught by the Year 5/6 class teacher for accelerated mathematics programming at school. His artwork was "very detailed," and he had recently "written detailed stories on the computer at home." On the other hand, the teacher reported that James "has dyslexic tendencies when spelling."

James obtained a Full Scale IQ of 138 on the WISC-III^{UK}. This score indicates that he was a "very superior" student. The test showed a discrepancy between the two scales of the test (Verbal IQ 147, Performance IQ 119). What was glaringly apparent was that James's Coding subtest raw score was 31, well below what would be expected for his chronological age of 9 years and 7 months, although he scored high on all other subtests. Coding indicates the speed at which new tasks are learned, visual memory, motor coordination, perception, and persistence. However, the scale indicated that arithmetic was one of James's major strengths.

A dynamic assessment method was used to determine whether James exhibits high performance in mathematics. James was given the Written National Standardized Mathematics Test for Year 4 (1997) version). The test is divided into two parts: Part A (31 questions in 45 minutes) and Part B (15 challenging questions, untimed test). James solved all of the questions correctly in Part A in 20 minutes, and all of the 15 questions in Part B. According to the score interpretation, James's score set him above the level of Year 4 classes in mathematics. On the following day, James was given 1 hour of intensive teaching in geometry at the level of a Year 6/7 child. He was eager to learn new concepts in geometry. He was given tasks to find the angles without using a protractor. Although James grasped the concepts quickly, he found it difficult to memorize some of the given terms. Thus, he was given a paper that explains the angles, together with their names. One day later, James was given a posttest in geometry, using a test devised from the Mathematics National Curriculum for Years 6 and 7. The test has nine varied questions, six of which challenged his high mathematical ability. James finished the test in only 25 minutes. He answered eight of the questions correctly by finding the angles and giving the reasons for his answers. James demonstrated a high ability in reasoning compared to students in his chronological age group. The last question was the only one that he could not answer, and this caused frustration.

James' DST profile indicated a "noticeable difficulty" in the Two-Minute Spelling, Postural Stability, and One-Minute Writing subtests. By contrast, he showed a "strong ability" in terms of manual dexterity (Bead Threading), Rapid Naming, Backward Span, Nonsense Passage Reading, Verbal Fluency, and Semantic Fluency, together with an "average ability" in the One-Minute Reading and Phonetic Segment subtests. All the "noticeable difficulties" in balance, spelling, and writing appeared to be consistent with James's below-average score in the Coding in the WISC-III^{UK}, which involves speed and motor coordination skills. In the spelling test, James wrote the words "tommorow" instead of "tomorrow," "tong" for "tongue," "foran" for "foreign," and "whos" for "whose."

James showed a positive attitude towards reading. However, his performance in the Neale Analysis indicated a discrepancy between the Accuracy and Comprehension Reading Age (12 years and 6 months to 13 years), and the Rate Reading Age (8 years and 11 months). This revealed that he should be given adequate time to read and comprehend the passages accurately in class. James was a fluent reader, but he made more errors when given timed reading passages. Analysis of his errors revealed that he omitted and mispronounced some words. Analyses of his writing assignments revealed the almost illegible handwriting and poor spelling that frequently accompany a learning difficulty.

There was no doubt that James was mathematically gifted. Although he used written language well, his poor fine motor skills and spelling difficulty affected his performance in written tasks. His high intellectual and mathematical abilities, as well as his spelling and writing difficulties, were obvious to his parents and school.

Case Study 2: Maria. Maria was 9 years and 1 month old and lived at home with her English mother and Chinese father. English was the language spoken at home. Maria was fluent in English, but she did not speak Mandarin. Her father was born and raised in the United States, and his first language was English; he knew a few words of Mandarin. He was a barrister, engineer, and a mathematically very able person; however, he had difficulty in reading and writing, as did

some of his Chinese family members. Maria's mother was a teacher and researcher; she had difficulty in writing and weak fine motor skills, which affected her handwriting. Maria had one sister in the reception class and one brother aged 1 year and 6 months. Both Maria and her mother had unusual pencil grip. According to her mother, Maria had a very good, warm relationship with her father and also with her mother, brother, and sister.

Maria was in Year 4, attended a problem-solving workshop in mathematics, and received regular teaching in the other subjects in a state school setting. She attended nursery school for 2 years before entering kindergarten for 4 months in the U.S., where no formal writing or reading instruction was provided. Because of the parental concern about Maria's spelling, she was identified by the Primary Support Service as a student with writing and spelling difficulties, and she had remedial assistance off and on throughout the year. Maria was described by all sources as "a cooperative and quiet" youngster. Maria was shy when meeting new people. Her mother described Maria as an "above average" student with "emotional tension" and "lack of confidence."

Maria obtained a Full Scale IQ of 126 on the WISC-III^{UK}. This ranked her in the 96th percentile, which falls within the "superior range" of intelligence. The Scale showed a discrepancy between the Verbal and Performance IQ Scales. Her Verbal IQ Scale of 131 was at the 98th percentile, which falls within the "very superior" range, whereas her Performance IQ of 110 was at the 75th percentile, which falls within the "average" range. Like James, Maria scored well below average for Coding, although in all other tests she scored very high. This may be partly explained by Maria's unusual pencil grip.

The Neale Analysis Test showed that, according to Maria's chronological age, her reading age was 2 months below average in rate (speed), and 4 months below average in Accuracy Age, but 1 year and 1 month above in Comprehension Age. Analysis of Maria's reading errors revealed she did not have a strong sense of the sound-symbol relationship. Maria's teacher reported that she "has previously had difficulties when reading, but in the last year has improved dramatically." Analyses of Maria's writing assignments revealed the illegible handwriting, spelling, and mechanical errors (punctuation, capitalization, and apostrophes) that frequently accompany LDs. Maria clearly had

gaps in spelling knowledge that needed to be addressed systematically. She also needed rigorous, structured support for writing and to proof-read her work for punctuation, apostrophes, and spelling.

The DST indicated "very severe difficulty" with One-Minute Writing and "severe difficulty" with Two-Minute Spelling, together with "noticeable difficulties" with Rapid Naming and Posture Stability. In the Two-Minute Spelling Test, Maria misspelled some basic key words, such as "tomorrow" as "tomorow," "doctor" as "docter," "tongue" as "tung," and "laugh" as "lagh." All these difficulties in writing, spelling, and balance appeared to be consistent with the below-average score for Coding in the WISC-III^{UK}. In contrast, Maria showed a "strong ability" in terms of Phonetic Segment, Nonsense Passage Reading, and Verbal Fluency, together with average performance in dexterity (Bead Threading), One-Minute Reading, and Backward Span. The last subtest appeared to be consistent with the average score for the Auditory Sequential Memory, which was noted in the literacy assessment report.

A dynamic assessment method was used to determine whether Maria exhibited high potential in mathematics. She was given the Written National Standardised Mathematics Test for Year 4 (1999 version) at school. Although she was not able to answer some written questions, her overall test score set her above the level of Year 4 classes in mathematics. One day later, she was given a 1-hour lesson focusing on the problems that she encountered in the pretest, which were problem solving in relation to time, money, and advance operations. It was noticed that throughout the teaching session, Maria preferred to solve the problems mentally without writing down her work.

Despite her high mathematical ability, it was clear that Maria had not been exposed at school to some particular methods for solving the money, time, and division problems. However, Maria started to use these methods and to show her written work on paper. This allowed her to solve mathematical problems much more quickly. Because she answered all of the pretest questions correctly, and showed considerable progress during the teaching lesson, Maria was given, exceptionally, in the second day, a more challenging posttest, which was derived from the Mathematics National Curriculum for Years 4–6 (1999 version). The posttest has eight varied problem-solving questions, five of which are derived from a test designed for a Year 6 class.

Maria answered all of the test questions in 41 minutes. Although Maria needed extra time to solve the given problems, she was able to answer all of the questions correctly.

Maria is an example of a student with severe learning difficulties that affect her performance in all areas and seem to override her high mathematical ability. However, both Maria's parents and the school were aware of her high mathematical ability and her learning difficulty, especially in writing and spelling.

Case study 3: William. At the time of the study, William was 11 years and 5 months old, a Year 6 pupil within a class of very mixed abilities and varied social backgrounds. He received only regular educational teaching in his state school. William was well-spoken, verbally fluent, with a sunny nature, a wonderful sense of humor, and wide-ranging general knowledge. William was the youngest child in his family; he had a 14-year-old brother who was "slightly dyspraxic," had handwriting difficulties, and had been referred to a psychotherapist. William's father was a university lecturer in law and was intelligent and slightly dyspraxic. His mother was a commercial manager. William was previously evaluated by a private psychologist for dyspraxia and had motor problems in writing and in marshalling his thoughts quickly.

William attended a nursery school for 2 years before entering Year 1 at 5 years old. His parents stated that there were no concerns about him as a preschool child. When William was in Year 1, the school identified his high ability; a specialist assessed him and found that he had high ability in language.

William was a top debater, mature, an avid reader, had characteristics of leadership, and had shown a passion and strong aptitude for creative writing, mathematics, and music. He was bright, able to learn at a very fast rate, and needed only to concentrate to grasp new concepts. He was quickly bored by work that was too easy and did not need any of the repetition that is built into the national literacy and numeracy strategies. He experienced a great deal of tension, especially when he felt tired. He shouted, screamed, and threw objects when overstretched. His teacher reported, "In terms of his ability, I feel we have not yet seen just how much William could do if he were not so very anxious about failing." His mother stated that he was suicidal at one point when he lost control following misdiagnosis for ADHD.

A psychiatrist prescribed Ritalin to modify his hyperactive behavior, but in fact, it made him hyperanxious. The disturbed behavior he exhibited while reacting to Ritalin brought him into conflict with his school; he was withdrawn and became depressed, after which he changed schools.

All of the sources stated that William was "a very popular boy in the class and he frequently leads activities both during breaks and during lessons." His teacher reported that he had high mathematical abilities, and exceptionally high ability in language and science. William played the piano for the school assemblies, and had begun peer-tutoring another boy during some lunch times. In contrast, it was reported that William was, however, slow to do his laces up, to put on shoes, to dress, and to organize himself, and he needed to plan sequences of action.

William obtained a Full Scale IQ of 124 on the WISC-III^{UK}. This ranked him at the 95th percentile, which falls within the "superior range" of intelligence. Of particular interest was the 44-point discrepancy between his Verbal and Performance IQ Scales scores. William's Verbal IQ Scale of 140 was at the 99.6th percentile level, which falls within the "very superior range," whereas his Performance IQ of 96 was at the 39th percentile level, which falls within the "average range." His subtest scores in the Verbal and Performance domains appeared as if two different students had taken the test: one average and one gifted. The assessment indicated that the contrast between his superb verbal skills, his weaker coordination, and slower speed of processing of visual skills were highly significant and sufficient to cause him a great deal of frustration in class. Coding was the most significant learning block.

A dynamic assessment method was used to determine whether William exhibited high potential in mathematics. He was given pre- and posttests that were derived from the Written National Standardised Mathematics Test for Year 6 (2000 and 2001 versions). The pretest consisted of 11 questions, 5 of which were challenging mathematical questions in the area of geometry, problem solving, and linear equations. When he was given the pretest, William looked at the questions and without reading any of them, said, "I cannot do it, these are so difficult." The questions were read to him orally, and this encouraged him to begin answering them. He answered eight questions correctly, but could not answer the linear equation question and

refused to read or answer the rest as he became tired. It was clear that William tended to answer questions mentally without writing down the method for solving the problems.

A day later, a 1-hour lesson was given to William that focused on advanced geometry and problem-solving questions, which he had found difficult to answer in his pretest. In the one-to-one teaching session, he listened carefully to the teacher and asked several questions about using different methods for solving mathematical problems. Noticeably, individual teaching proved to be a suitable method to use with William in order to attract his attention and maintain his concentration. However, although he showed high mathematical potential, William had not memorized the times table. He showed no desire to write down his answers to the given exercises; he preferred to give his answers orally. The following day, William was given a posttest that focused on problem solving, geometry, and linear equations. To accommodate his short attention span and lack of concentration, William was given a shorter posttest, which consisted of six questions. Like the behavior he had previously displayed when he started to answer the pretest questions, William quickly looked at the posttest questions and said, "I cannot do it . . . I am so tired." However, the questions were read to him orally and this encouraged him to start solving the problems. He answered all of the problem-solving and geometry questions, but he could not solve the linear equation question. He was able to finish in 44 minutes, which could be considered a long time. This suggests that William can master tasks if he is given adequate time.

The DST indicated "very severe difficulty" with One-Minute Writing and "severe difficulty" with Posture Stability, together with "noticeable difficulties" with dexterity (Bead Threading). All of these difficulties in writing, dexterity, and balance appear to be consistent with the below-average Coding in the WISC-III^{UK}. This suggests that William's ability to coordinate actions in order to write at speed was therefore significantly below his chronological age. In contrast, William showed a "strong ability" in terms of Rapid Naming, One-Minute Reading, Phonetic Segment, Backward Span, Nonsense Passage Reading, and Semantic Fluency, with average performance in Two-Minute Spelling and Verbal Fluency. These strengths suggest that the difficulties were largely limited to the phonological domain.

The Neale Analysis Test showed that William's reading age was at least 1 year and a half above his chronological age. William's reading was fluent, fast, and accurate, and his comprehension in the six given passages was at a high level. Analysis of William's reading revealed that he had a strong sense of the sound-symbol relationship, reflecting his exceptional oral language ability. Correspondingly, a private psychologist reported that William's reading age in the Wechsler Objective Reading Dimensions (WORD) was 2 years and 7 months above his chronological age.

A comparison of William's IQ (Full Scale, Verbal, and Performance) scores, his mathematics Dynamic Assessment, school academic achievement, and his daily performance in academic tasks indicated that his writing and handwriting difficulties and high mathematical ability were masking each other.

Case study 4: Richard. Richard was a 10-year-old, Year 5 pupil receiving regular educational teaching within a large class of Years 5 and 6 children of very mixed abilities and varied social backgrounds. Richard lived at home with his parents and brother in a socioeconomically advantaged area. Richard was a quiet and reserved child in the classroom. His father was a managing director and his mother a director. Richard's father claimed to be like Richard; he thought more quickly than he wrote, so his secretary was constantly correcting his grammatical mistakes in English.

Richard attended a nursery school 2 years before entering Year 1 at 4 years and 4 months old. Richard was not easy to get along with; he did not initiate conversations with teachers and new people, although he was an independent child. His teacher related that he was "difficult to motivate, hates anyone to do better than him."

Richard's major strengths were mathematics and gymnastics. He described his favorite subject by saying, "I like mathematics, but I do not like writing." His score in the National Mathematics Test set him above average in relation to his chronological age. According to his parents, he is an "above average student." Richard's teacher noted that he "irritates anyone not as quick as him; rather scornful with children with difficulties."

Richard obtained a Full Scale IQ of 119 on the WISC-III^{UK}. This ranked him at the 82nd percentile, which falls within the "above average range" of intelligence. The Scale showed a discrepancy between

the Verbal and Performance IQ Scales. His Verbal IQ Scale of 131 was at the 98th percentile, which fell within the "very superior range," whereas his Performance IQ of 99 was at the 47th percentile, which fell within the "average range" for his age. His performance in the Object Assembly subtest, which assessed his visual sequencing and spatial skills, was below average for his age, reflecting a difficulty with speed of working rather than inaccuracy. The Coding subtest assessed his ability to scan, match, and copy shapes at speed and to respond by writing. In this test, his performance was below the expected level for his age. According to Richard's teacher, he had difficulty in writing, and he often wrote illegibly. Although his writing had improved enormously over the past year, he hated writing. An observation of the student showed that he had some difficulty in grasping his pencil and in writing. The contrast between his superb verbal skills, his weaker coordination, and slower speed of processing visual material was significant and caused him a great deal of frustration in class.

A dynamic assessment method was used to determine whether Richard exhibited high performance in mathematics. Although Richard was in Year 5, he was given pre- and posttests that were derived from the Written National Standardised Mathematics Test for Year 6 (2000 and 2001 versions) at school. The pretest consists of 11 questions, 5 of which would challenge his mathematical abilities in the areas of geometry, problem solving, and linear equations. The questions were read to him orally. In 35 minutes, Richard answered seven questions correctly, but could not answer the linear equation and one of the problem-solving questions. Richard indicated that he had never been given such difficult questions to solve in his class, and admitted that he "guessed some of the answers."

On the following day, Richard was given a 1-hour lesson focusing on the advanced exercises in relation to linear equations, geometry, and the problem-solving questions that he found difficult to solve. Richard displayed a high potential for understanding new mathematical concepts, and it was only on one occasion that he asked for the explanation of the method for solving a particular problem to be repeated. He was enthusiastic, motivated, and pleased about the praise he received. It was obvious that such individual teaching was an appropriate method, especially to help him solve advanced mathematical problems. One day later, Richard was given a posttest of six

questions that consisted of problem solving, geometry, and linear equations. Richard answered all of the questions correctly in 35 minutes, which can be considered an average amount of time. This suggests that Richard can solve and master advanced mathematical tasks if he is exposed to them in the regular classroom.

The DST indicated "noticeable difficulties" with Posture Stability and One-Minute Writing. These difficulties in writing and balance appeared to be consistent with the below-average score for the Coding and Object Assembly subtests in the WISC-III^{UK}. This suggests that Richard's ability to coordinate actions, to use visual sequencing and spatial skills, and to write at speed were below average for his chronological age, reflecting a difficulty with speed of working rather than inaccuracy. His parents commented, "When we encourage him to write sometimes, he can do it easily." In contrast, Richard showed a "strong ability" in terms of Rapid Naming, One-Minute Reading, Phonetic Segment, Backward Span, Nonsense Passage Reading, and Verbal Fluency, with "average ability" in dexterity (Bead Threading). In the Two-Minute Spelling Test, although Richard misspelled some basic key words, such as "laugh" as "lagh," "doctor" as "docter," and "tongue" as "tongque," his spelling score indicated that he was average according to his age. All of the abovementioned strengths in the DST suggest that the difficulties were largely limited to the phonological or the oral language domains. Analyses of Richard's writing assignments revealed that he had illegible handwriting and made mechanical errors, such as punctuation, capitalization, and omission of some letters.

The Neale Analysis Test showed that Richard's reading rate age was 5 months above his chronological age. Although Richard showed fluent and accurate reading, his comprehension age was 1 year 7 months below his chronological age. Analysis of Richard's reading revealed that he had a strong sense of the sound-symbol relationship and mispronounced few words, which reflected his high oral language ability. His teacher reported that "he uses all strategies to tackle unfamiliar words, and needs a little help to be independent."

Richard's case exemplifies the need for informal as well as formal assessment data in identifying dual exceptional children. His test scores indicated high intellectual and mathematical abilities. Lacking historical data, one could easily overlook his LDs in writing.

Case study 5: Anne. Anne was a 10-year-old, Year 5 pupil receiving regular educational teaching within a large class of Years 5 and 6 children of very mixed abilities and varied social backgrounds. Anne lived at home with her mother, father, and brother. Anne was a friendly, cheerful, cooperative, and polite girl. Anne's teacher stated that she was very peaceful and calm, but did not have close relationships with other students. Anne's father was a sales manager, and her mother was a dental nurse and laboratory technician. Anne's mother was Polish, but English was the language spoken at home. Accordingly, Anne's first language was English and she also knew some German words. Anne was left-handed and had an unusual pencil grip. Both her mother and brother were right-handed and her father was ambidextrous. A hearing support report indicated that Anne had a mild bi-lateral hearing loss perhaps explaining her lisp. This ear infection, which happened only in the winter months, caused her some difficulty in understanding what was being said, particularly if there was significant background noise. Anne did not attend a nursery school. She entered her first year when she was 4 years old, and transferred to another school when she was in Year 3. Her Year 1 teacher reported that she could listen to instructions and follow them, but needed to pay more attention at times and try not to interrupt.

Anne's teacher reported she had "high abilities in mathematics." The Written National Standardised Mathematics Test indicated that she was an above-average student in mathematics. Anne's special interest was lace-making and embroidery. She had very good gross motor skills. In contrast, Anne's teacher emphasizes that she had some language "gaps." She sometimes did not understand anything except literal language. Anne was described as sometimes being tense and irritable, speaking crossly, and unable to understand other children. Her mother emphasized that English was Anne's first language. She mentioned that Anne could speak very few words of German and Polish and thus she would not consider her a bilingual student.

During the testing session, Anne was cooperative and generally followed directions well. Anne obtained a Full Scale IQ of 122 on the WISC-III^{UK}. This ranked her at the 93rd percentile, which falls within "the superior range" of intellectual functioning. The Scale showed no discrepancy between the Verbal and Performance IQ

Scales. Her Verbal IQ Scale of 120 was at the 91st percentile, whereas her Performance IQ of 119 was at the 90th percentile.

A dynamic assessment method was used to determine whether Anne exhibited high performance in mathematics. Although Anne was in a Year 5 class, she was given pre- and posttests derived from the Written National Standardised Mathematics Test for Year 6 (2000 and 2001 versions). The pretest consists of 11 questions, 5 of which would challenge her mathematically in the areas of geometry, problem solving, and linear equations. Anne finished answering the test in 35 minutes; although she answered six questions correctly, she could not answer the linear equation and geometry questions and one of the problem-solving questions. According to Anne, she had never received lessons in geometry or linear equations in her regular classroom. On the following day, Anne received a one-to-one session lasting 1 hour that focused on advanced exercises on linear equations, geometry, and problem solving. Anne was enthusiastic, cooperative, and motivated during the teaching session. She displayed high mathematical abilities, especially in geometry. It was obvious that individual teaching was a more suitable approach to be used with Anne as she became noticeably more confident in asking about the most appropriate methods to use in solving the problems. One day later, Anne was given a posttest that included six questions relating to problem solving, geometry, and linear equations. In 25 minutes, she answered five questions correctly. In the linear equation question, she used the right method for solving the problem; however, because she forgot to write a negative sign (-), her final answer was wrong. This suggests that Anne can master advanced mathematical tasks, especially the visual ones, if exposed to them in the classroom.

The Neale Analysis Test indicated that Anne's reading rate age was average according to her chronological age. The test indicated strengths in terms of reading accuracy and reading comprehension. Her reading accuracy was 3 years above her chronological age and her reading comprehension was 1 year 1 month above. Analysis of Anne's reading revealed that she had a strong sense of the sound-symbol relationship and few mispronounced words, which reflected her high oral language ability. Anne's teacher stated that she was a "good and fluent reader." The DST indicated a "strong ability" in terms of dexterity (Bead Threading), Two-Minute Spelling, Backward Span, Nonsense

Passage Reading, One-Minute Writing, and Semantic Fluency. The test also revealed an "average ability" in Rapid Naming, One-Minute Reading, Postural Stability, Phonetic Segment, and Verbal Fluency. However, analyses of Anne's writing assignments revealed that she wrote neatly with well-formed and "big" letters, but had a noticeable difficulty in composition and expressive written language. Although she took extra time in class, Anne found it difficult to organize the structure of her ideas into a coherent form to make a story.

Anne's case demonstrates that her intellectual and mathematical abilities and expressive written difficulty mask each other, given that her mother reported that she was an "average" student. Moreover, Anne's English language is outstanding in other aspects, such as reading comprehension and spelling, given that spelling needs an accurate hearing capacity. On the other hand, reading comprehension and expressive writing are not dependent on this capacity.

Discussion

Conclusions

The findings of the current study support several conclusions. First, the assessment profiles and case histories developed for each subject represent the whole picture of the educational, familial, medical, and psychological backgrounds. Second, a multidimensional assessment provides a more accurate and sensitive means of identifying gifted children with LDs. Third, a distinctive cognitive pattern and verbalperformance discrepancies provide good indications to enable identification of the subjects. This finding supports several assertions that a significant discrepancy in VIQ-PIQ may be one of the cognitive characteristics of gifted children with LDs (Kaufman, 1994; Silverman, 1983). This is also consistent with the assertion that the traditional use of an 11-point discrepancy (at the .05 level) may be a helpful, but inadequate, indicator of the coexistence of mathematical giftedness and LDs (Al-Hroub, 2005). Nevertheless, this discrepancy should be interpreted cautiously. According to Kauffman (1994), most children with LDs, and many with no LDs, exhibit a discrepancy between the Verbal and Performance IQ scores. Also, discrepancy is considered to be typical for children with autism, language problems, and emotional disorders.

Fourth, the psychometric test scores listed in Table 1 present only a partial picture of students with LDs, but they enable teachers, educators, and counselors to improve the individual education plans, and develop more appropriate teaching strategies. For example, Maria's and Anne's mothers described their children as nonbilingual and stated that English was their first language. This information was important in understanding that their LDs are not primarily the result of being exposed to other languages. Observation showed that, apart from Richard, all of the students have an unusual pencil grip, suggesting weak fine motor skills, which is considered to be one of the symptoms of students with LDs (Thomson, 2001). Previous psychoeducational and school reports supported the existence of LDs in James and William. Richard's father acknowledged after his son was assessed, that he is, like Richard, suffering from LDs. This information was also helpful for his teacher to understand Richard's case. Fifth, dynamic assessment involving a mathematics test provides a means for assessing the untapped mathematical potential development of the participants (Brown & Ferrara, 1986). It also provides a domain-specific diagnosis of children with LDs and information on how mathematically gifted children attempt to perform tasks. It was developed to overcome the shortcomings of psychological tests. Therefore, it may be considered a complementary approach that strengthens the findings of the psychological assessment.

Sixth, historical data, a student's school records, psychological reports, teacher and parent interviews, and task analysis of the student's paperwork not only provide supplementary information, but also clarify the quantitative data about the subjects. Seventh, according to Baum (1989) and Brody and Mills (1997), these students are classified into three unequally sized subgroups, as follows: (a) gifted students who have unrecognized learning difficulties; (b) students with recognized learning difficulties, but unrecognized giftedness; and (c) students with unrecognized giftedness and learning difficulties. Richard and Anne were described by their parents and schools as gifted students with no real LDs (the first group). No students in the cases that have been studied were described as having LDs and not being mathematically gifted (the second group). It may be noted

that the lack of recognition of the second group is not surprising as no systematic school-wide testing had been conducted. William's high mathematical ability and writing difficulties mask each other (the third group). However, James and Maria were described at school as students with high mathematical abilities who show evidence of specific LDs, which is not a category that has been previously recognized by Baum's (1989) or Brody and Mills's (1997) classification. These results may imply the existence of a fourth subgroup, which is visible to some teachers and parents, who are left with no rigorous guidance as to how to serve these students.

As all of the subgroups are variable rather than permanent, their size is unequal and could always change. To conclude, there are strong indications that cooperation and partnership between parents, teachers, and the inspector of gifted education have played a major role in recognizing the subjects of the present study. For example, James and Maria were recognized by a teacher who has more than 40 years' teaching experience. Strong partnerships were also reported between this teacher and all other parents. Therefore, providing in-service training for teachers, the school community, and parents would raise their awareness of the definitions, identification, and characteristics of dual-exceptional students. Nevertheless, teachers' training would increase the number of referrals of this population to special education and narrow down the other three subgroups in favor of this fourth one.

However, the main recommendation suggests that students with both mathematical giftedness and LDs need to have their own unique learning differences recognized. As a result, successful enrichment and remediation (Brody & Mills, 2004) should be provided. In considering the most appropriate forms of provision for mathematically gifted students, it is important to bear in mind the nature of the mathematical abilities we should be trying to develop. Mathematically gifted and LD students require some differentiated assessment, instruction, and curriculum.

Research Implications

Four kinds of theoretical and practical implications may be drawn from the current study. First, the present study may be considered to be a step toward the development of a theoretical framework for gifted children with LDs. Many potentially answerable questions about this population of students remain unexplored. For example, the findings were not able to answer the question: Do those students tend to have any special emotional or behavioral issues? The small number of subjects does not allow the researcher to generalize common characteristics for those students. Furthermore, there is little consensus between educators, especially from different cultures, about what is meant by giftedness and LDs. However, the findings displayed the necessity for provision of special educational services for able students in mathematics who have LDs. These special services should be determined according to the individual needs by designing a special approach to teaching.

Second, practical implications may be drawn from the current study in certain areas, such as the use of operational definitions of the gifted with LDs, the number of participants, and the duration of the assessment process, using a multidisciplinary team of psychologists and consultants to assess these students. Third, in order to accurately identify more gifted students with LDs, teachers, gifted specialists, LD specialists, and school psychologists need to be trained to look less at the large-scale scores and gross indicators and to focus more on the patterns of scores that reflect the unique cognitive and academic processing qualities that differentiate gifted students with LDs from those identified as gifted or dyslexic. Fourth, comprehensive psychodynamic educational assessments can identify unexpected areas of giftedness and LDs. Therefore, a variety of assessment tools and strategies could be used to gather relevant information about dual-exceptional students.

The multiple criteria of assessment instruments give a more complete picture of the student's cognitive abilities and difficulties (Lazarus, 1989). Dynamic assessment gives the student the opportunity to transfer newly acquired skills to similar situations (Brown & Ferrara, 1986; Kirschenbaum, 1998). Therefore, dynamic assessment should be carried out in all of the curriculum subjects by the regular-class teacher and/or the gifted/LD service teacher.

One could question whether the study findings were really able to answer the central research question with such a small sample. It is important to note that in research studies, externally validated results are primarily supported by the extent to which these results are *generalizable* or *transferable*. Although most initial discussions of external validity focus solely on generalizability (see Campbell & Stanley, 1966), some researchers, such as Denzin and Lincoln (2005), have included a reference to transferability because many qualitative research studies, such as the current one, are not designed to be generalized. In other words, the study's findings invite readers, for example, to make connections between the multiple-dimensional approaches to identification using their own educational experiences.

There are many students who exhibit high mathematical ability and yet have difficulty mastering basic academic skills, including mathematical skills, and thus may need special programming. To understand this population of students, there is a need to avoid using rigid definitions and cut-off scores to determine who should receive special services. In addition, findings demonstrate the pressing need for further research that takes into account a larger number of students, and for a team of multidisciplinary assessors. Further research should explore other areas of giftedness beside mathematics, such as art, music, or leadership. Multidisciplinary assessment would be the best approach to identifying students who have different abilities.

Research Limitations

A number of limitations relate to several primary areas. One area that some critics may consider a limitation concerns the restricted period of time, which was 3 months. Accordingly, the presented data could be considered as a snapshot of these children over a relatively short period of their schooling, and the opportunity to work with them over a longer period might well have provided further insights. In addition, the small sample of the research should not be seen as a representative of the population of mathematically gifted students with LDs. A further limitation is related to the narrow scope of the study whereby data were gathered from 3-year levels (Years 4 to 6) at three schools in Cambridgeshire, England. Although all of these grades are considered crucial in a child's academic career, a study emphasizing a broader scope that encompasses students in other grades might more effectively reveal key cognitive characteristics of mathematically gifted children with LDs. Moreover, the researcher was the sole diagnostician for all cases of the study. Although he is a specialist

in mathematical giftedness and dyslexia, a multidisciplinary team of psychologists and specialists is also needed for more triangulated and reliable findings. Another limitation concerns the way in which the order of psychometric and dynamic assessment was administered. In the first step of assessment, one has to verify the presence of high intellectual and mathematical giftedness. Therefore, it would be more appropriate to assess students first by using the WISC-III^{UK} and then moving on to the dynamic assessment that involves a mathematics test. In the second step, students should be assessed by means of tests that determine their levels of learning ability, such as the Dyslexia Screening Test and the Neale Analysis of Reading Ability. Finally, the use of different dynamic assessment materials at different grade levels has some implications for validity, particularly for those learners whose pre- and posttests covered different grade levels. However, one can argue that learners also have different levels of mathematical giftedness and all questions were derived from standardized mathematics tests at Key Stages 2 and 3, which were originally designed (Part C of the tests) to challenge more able children in mathematics at British schools.

References

- Aaron, P., Joshi, R., & Ocker, E. (2004). Summoning up the spirits from the vast deep: LD and giftedness in historic persons. In T. M. Newman & R. J. Sternberg (Eds.), Students with both gifts and learning disabilities: Identification, assessment, and outcomes (pp. 199–234). New York, NY: Kluwer Academic/Plenum.
- Al-Hroub, A. (2005). *Identifying and programming mathematically gifted children with learning difficulties in Jordan* (Unpublished doctoral thesis). Cambridge University, Cambridge, UK.
- Ball, D. L. (1993). With an eye to the mathematical horizon: Dilemmas of teaching elementary school mathematics. *Elementary School Journal*, 93, 373–397.
- Barton, J. M., & Starnes, W. T. (1989). Identifying distinguishing characteristics of gifted and talented/learning disabled students. *Roeper Review*, 12, 23–29.

- Baum, S. (1989). Gifted but learning disabled: A puzzling paradox. *Preventing School Failure, 34,* 11–14.
- Baum, S. & Owen, S. (2004). To be gifted and learning disabled: Strategies for helping bright students with LD, ADHD, and more. Mansfield Center, CA: Creative Learning Press.
- Beckley, D. (1998). *Gifted and learning disabled: Twice exceptional students*. Retrieved from http://www.gifted.uconn.edu/nrcgt/newsletter/spring98/sprng984.html
- Brody, L., & Mills, C. (2004). Linking assessment and diagnosis to intervention for gifted students with learning disabilities. In T. M. Newman & R. J. Sternberg (Eds.), Students with both gifts and learning disabilities: Identification, assessment, and outcomes (pp. 17–29). New York, NY: Kluwer Academic/Plenum.
- Brody, L. E., & Mills, C. J. (1997). Gifted children with learning disabilities: A review of the issues. *Journal of Learning Disabilities*, 30, 282–297.
- Brown, A. & Ferrara, R. (1986). Diagnosing zones of proximal development. In J. V. Wertsch (Ed.), *Culture, communication, and cognition* (pp. 273–305). Cambridge, UK: Cambridge University Press.
- Campbell, D. T., & Stanley, J. C. (1966). Experimental and quasiexperimental designs for research. Chicago, IL: Rand McNally.
- Denzin, N. K., & Lincoln, Y. S. (2005). *The Sage handbook of qualitative research* (3rd ed.). Thousand Oaks, CA: Sage.
- Fawcett, A., & Nicolson, R. (1996). *Manual of the Dyslexia Screening Test (D.S.T.)*. London, UK: The Psychological Corporation.
- Fetzer, E. A. (2000). The gifted/learning-disabled child: A guide for teachers and parents. *Gifted Child Today*, 23(4), 44–50.
- Gagné, F. (1995). The differentiated nature of giftedness and talent: A model and its impact on the technical vocabulary of gifted and talented education. *Roeper Review*, 18, 103–111.
- Gavin, M. K., & Adelson, J. L. (2008). Mathematics, elementary. In J. A. Plucker & C. M. Callahan (Eds.), Critical issues and practices in gifted education: What the research says (pp. 367–394). Waco, TX: Prufrock Press.
- Haywood, C. H., & Lidz, C. S. (2007). *Dynamic assessment in practice: Clinical and educational applications.* New York, NY: Cambridge University Press.

- Joffe, L. S. (1981). School mathematics and dyslexia: Aspects of the interrelationship (Unpublished doctoral thesis). University of Aston, Birmingham, UK.
- Kanevsky, L. (2001). Dynamic assessment of gifted students. In K. A. Heller, F. J. Mönks, R. J. Sternberg, & R. Subotnik. (Eds.), *International handbook of giftedness and talent* (2nd ed., pp. 283–295). London, UK: Pergamon.
- Kaufman, A. S. (1994). *Intelligent testing with the WISC-III*. New York, NY: Wiley.
- Kavale, K. A. (2002). Discrepancy models in the identification of learning disability. In R. Bradley, L. Danielson, & D. P. Hallahan (Eds.), *Identification of learning disabilities: Research to practice* (pp. 369–464). Mahwah, NJ: Lawrence Erlbaum.
- Kirschenbaum, R. (1998). Dynamic assessment and its use with underserved gifted and talented populations. *Gifted Child Quarterly*, 42, 140–147.
- Krutetskii, V. (1976). *The psychology of mathematical abilities in schoolchildren* (J. Teller, Trans.; J. Kilpatrick & I. Wirszup, Eds.). Chicago, IL: The University of Chicago Press.
- Lazarus, B. (1989). Developing assessment profiles for gifted learning disabled students. *Reading, Writing, and Learning Disabilities, 5,* 235–246.
- Lewis, C., Hitch, G., & Walker, P. (1994). The prevalence of specific arithmetic difficulties and specific reading difficulties in 9- to 10-year-old boys and girls. *Journal of Child Psychology and Psychiatry*, 36, 283–292.
- Little, C. (2001). A closer look at gifted children with disabilities. *Gifted Child Today*, 24(3), 46–54.
- Marland, S. P., Jr. (1972). Education of the gifted and talented: Report to the Congress of the United States by the U.S. Commissioner of Education and background papers submitted to the U.S. Office of Education, 2 vols. Washington, DC: U.S. Government Printing Office. (Government Documents, Y4.L 11/2: G36)
- McCoach, D., Kehle, T., Bray, M., & Siegle, D. (2004). The identification of gifted students with learning disabilities: Challenges, controversies, and promising practices. In T. M. Newman & R. J. Sternberg (Eds.), *Students with both gifts and learning disabilities* (pp. 31–48). New York, NY: Kluwer.

- Miller, R. C. (1990). *Discovering mathematical talent*. Eric Clearinghouse on Handicapped and Gifted Children, ED 321487. Retrieved from http://www.ericdigests.org/1994/talent.htm
- Minner, S. (1990). Teacher evaluations of case descriptions of LD gifted children. *Gifted Child Quarterly*, 34, 37–34.
- Montgomery, D. (1996). Educating the able. London, UK: Cassell.
- Munro, J. (2002). Understanding and identifying gifted learning disabled students. *Australian Journal of Learning Disabilities*, 7, 20–30.
- Neale, M. D. (1958). *Neale Analysis of Reading Ability*. London, UK: Macmillan.
- Neale, M. (1989). Neale Analysis of Reading Ability–Revised British Edition. Windsor, Berkshire, UK: NFER-Nelson.
- Reed, C. F. (2004). Mathematically gifted in the heterogeneously grouped mathematics classroom: What is a teacher to do? *Journal of Secondary Gifted Education*, 15, 89–95.
- Renzulli, J. (1977). The enrichment triad model: A guide for developing defensible programs for the gifted and talented. Mansfield Center, CT: Creative Learning Press.
- Ruban, L., & Reis, S. (2005). Identification and assessment of gifted students with learning disabilities. *Theory Into Practice*, 44, 115–124.
- Ryckman, D. B. (1981). Searching for a WISC-R profile for learning disabled children: An inappropriate task? *Journal of Learning Disabilities*, 14, 508–511.
- Schiff, M. M., Kaufman, A. S., & Kaufman, N. L. (1981). Scatter analysis of WISC-R profiles for learning disabled children with superior intelligence. *Journal of Learning Disabilities*, 14, 400–404.
- Sheffield, L. (1999). *Developing mathematically promising students*. Reston, VA: NCTM.
- Silverman, L. K. (1983). Personality development: The pursuit of excellence. *Journal for the Education of the Gifted, 6,* 5–19.
- Silverman, L. K. (1989). Invisible gifts, invisible handicaps. *Roeper Review*, 12, 37–42.
- Sowell, E. J., Zeigler, A. J., Bergwall, L., & Cartwright, R. M. (1990). Identification and description of mathematically gifted students: A review of empirical research. *Gifted Child Quarterly*, 34, 147–154.

- Steeves, K. J. (1983). Memory as a factor in the computational efficiency of dyslexic children with high abstract reasoning ability. *Annals of Dyslexia*, 33, 141–152.
- Sternberg, R. J., & Davidson, J. E. (2005). *Conceptions of giftedness* (2nd ed.). New York, NY: Cambridge University Press.
- Terman, L. (1925). Genetic study of genius (Vol.1): Mental and physical traits of a thousand gifted children. Stanford, CA: Stanford University Press.
- Thomson, M. (2001). *The psychology of dyslexia: A handbook for teachers*. London, UK: Whurr.
- Wagner, H., & Zimmermann, B. (1986). Identification and fostering of mathematically gifted students. *Educational Studies in Mathematics*, 17, 243–260.
- Waldron, K., & Saphire, D. (1990). An analysis of WISC-R factors for gifted students with learning disabilities. *Journal of Learning Difficulties*, 20, 422–432.
- Wechsler, D. (1992). Manual for Wechsler Intelligence Scale for Children (3rd ed.). London, UK: Psychological Corporation.

Author Note

The author wishes to thank Dr. Barend Vlaardingerbroek and two anonymous reviewers for helpful comments on an earlier draft of this article. Correspondence can be addressed to the following: Lebanon address: Dr. Anies Al-Hroub, Assistant Professor of Educational Psychology & Special Education, Department of Education, American University of Beirut (AUB), P.O. Box 11-0236, Beirut, Lebanon; aa111@aub.edu.lb or anies74@hotmail.com; UK address: Dr. Anies Al-Hroub, Visiting Scholar, Faculty of Education, University of Cambridge, 184 Hills Road, Cambridge, CB2 8PQ, UK; ama36@cam.ac.uk.



Cambridge Assessment International Education

Cambridge International Advanced Subsidiary and Advanced Level

PSYCHOLOGY 9698/31

Paper 3 Specialist Choices

October/November 2018

MARK SCHEME
Maximum Mark: 80

Published

This mark scheme is published as an aid to teachers and candidates, to indicate the requirements of the examination. It shows the basis on which Examiners were instructed to award marks. It does not indicate the details of the discussions that took place at an Examiners' meeting before marking began, which would have considered the acceptability of alternative answers.

Mark schemes should be read in conjunction with the question paper and the Principal Examiner Report for Teachers.

Cambridge International will not enter into discussions about these mark schemes.

Cambridge International is publishing the mark schemes for the October/November 2018 series for most Cambridge IGCSE™, Cambridge International A and AS Level components and some Cambridge O Level components.



Generic Marking Principles

These general marking principles must be applied by all examiners when marking candidate answers. They should be applied alongside the specific content of the mark scheme or generic level descriptors for a question. Each question paper and mark scheme will also comply with these marking principles.

GENERIC MARKING PRINCIPLE 1:

Marks must be awarded in line with:

- the specific content of the mark scheme or the generic level descriptors for the question
- the specific skills defined in the mark scheme or in the generic level descriptors for the question
- the standard of response required by a candidate as exemplified by the standardisation scripts.

GENERIC MARKING PRINCIPLE 2:

Marks awarded are always whole marks (not half marks, or other fractions).

GENERIC MARKING PRINCIPLE 3:

Marks must be awarded **positively**:

- marks are awarded for correct/valid answers, as defined in the mark scheme. However, credit
 is given for valid answers which go beyond the scope of the syllabus and mark scheme,
 referring to your Team Leader as appropriate
- marks are awarded when candidates clearly demonstrate what they know and can do
- marks are not deducted for errors
- marks are not deducted for omissions
- answers should only be judged on the quality of spelling, punctuation and grammar when these features are specifically assessed by the question as indicated by the mark scheme. The meaning, however, should be unambiguous.

GENERIC MARKING PRINCIPLE 4:

Rules must be applied consistently e.g. in situations where candidates have not followed instructions or in the application of generic level descriptors.

GENERIC MARKING PRINCIPLE 5:

Marks should be awarded using the full range of marks defined in the mark scheme for the question (however; the use of the full mark range may be limited according to the quality of the candidate responses seen).

GENERIC MARKING PRINCIPLE 6:

Marks awarded are based solely on the requirements as defined in the mark scheme. Marks should not be awarded with grade thresholds or grade descriptors in mind.

© UCLES 2018 Page 2 of 28

Each option has three questions:

Section A: A short answer question: (a) = 2 marks, (b) = 4 marks Section B: An essay question: (a) = 8 marks, (b) = 12 marks

Section C: An applications question (a) = 6 marks, (b) = 8 marks [choice of questions]

In order to achieve the same standard across all options, the same mark schemes are used for each option. These mark schemes are as follows.

Section A: Short answer question: (a) = 2 marks	
No answer or incorrect answer.	0
Basic or muddled explanation. Some understanding but brief and lacks clarity.	1
Clear and accurate and explicit explanation of term.	2

Section A: Short answer question: (b) = 4 marks	
No answer or incorrect answer.	0
Anecdotal answer with little understanding of question area and no specific reference to study.	1
Basic answer with some understanding. Reference to named study/area only. Minimal detail.	2
Good answer with good understanding. Study/area included with good description.	3
Very good answer with clear understanding of study/area with detailed and accurate description.	4

Section C: Application question = 6 marks	
No answer or incorrect answer.	0
Vague attempt to relate anecdotal evidence to question. Understanding limited.	1–2
Brief description of range of appropriate evidence with some understanding.	3–4
Appropriate description of good range of appropriate evidence with clear understanding.	5–6

Section C: Application question = 8 marks	
Suggestion is wrong.	0
 Suggestion is largely appropriate to the question and is vaguely based on psychological knowledge. Answer is mainly inaccurate, often incoherent and lacks detail. Understanding is lacking. If applicable, methodological knowledge is basic or absent. For methodology question description of a study/other authors' work 2 marks max if related to question. Different method from that named, but related to question max 2 marks. Method correct, but not answering question max 2 marks. 	1–2

© UCLES 2018 Page 3 of 28

Section C: Application question = 8 marks	
 Suggestion is appropriate to the question and based on psychological knowledge. Answer has some accuracy, some coherent and some detail. Understanding is limited. If applicable, methodological knowledge is adequate. Range of different methods, including named method, but lacks coherence. 	3–4
Suggestion is appropriate to the question and is based on psychological knowledge. Answer is accurate, largely coherent and detailed. Understanding is good. If applicable, methodological knowledge is good. NB main/named method plus method to gather data is coherent.	5–6
Suggestion is appropriate to the question and is clearly based on psychological knowledge. Answer is accurate, is coherent and has appropriate detail. Terminology is used appropriately. Understanding is very good. Methodological knowledge is very good with 5 or more co-ordinated features.	7–8

GENERIC: General: In this question part each candidate is free to **suggest** a way in which the assessment request could be investigated; the 'you' is emphasised to show that in this question it is not *description* that is being assessed, but an individual *suggestion*.

- The question may be in the form of a suggestion for research, or an application.
- The question may allow a candidate a free choice of method to design their own study.
- It might be that a specific method is named in the question, and if it is this method *must be addressed*.
- Each answer should be considered individually as it applies to the mark scheme.
- Marks are awarded for methodological knowledge and how the methodology is applied to this topic area.

EXAMPLE: **Specific:** The named method is a **field experiment**, so inclusion where the experiment is to be conducted, IV and DV, controls, and design, task to be completed and sample for example, are essential features. NB not all these features are needed for a max mark.

Experiments	Observations	Q'nnaire/Interview	General features
Type: lab or field	Participants: overt or covert	Type: open/closed	Sampling technique/sample
IV and DV	Observers: participant or non-participant	Setting: where conducted/how	Type of data Quantitative or Qualitative
Design	Data: structured or unstructured	Questions	Data analysis: descriptive or inf
Controls	Setting: controlled or uncontrolled	Rating scale e.g. type, 5-point	Ethics Reliability
Allocate to conditions	Number observers/irr	Scoring	Validity

© UCLES 2018 Page 4 of 28

Section B: Essay question: (a) = 8 marks	
No answer or incorrect answer.	0
Definition of terms and use of psychological terminology is sparse or absent. Description is mainly inaccurate, lacks coherence and lacks detail. Understanding is poor. The answer is unstructured and lacks organisation.	1–2
Definition of terms is basic and use of psychological terminology is adequate. Description is often accurate, generally coherent but lacks detail. Understanding is reasonable. The answer is lacking structure or organisation.	3–4
Definition of terms is mainly accurate and use of psychological terminology is competent. Description is mainly accurate, coherent and reasonably detailed. Understanding is good. The answer has some structure and organisation.	5–6
Definition of terms is accurate and use of psychological terminology is comprehensive. Description is accurate, coherent and detailed. Understanding is very good. The answer is competently structured and organised.	7–8

Section B: Essay question: (b) = 12 marks		
No answer or incorrect answer.	0	
Evaluation (positive and negative points) is basic . Range of evaluative points, which may or may not include the named issue, is sparse and may be only positive or negative. Evaluative points are not organised into issues/debates, methods or approaches. Sparse or no use of appropriate supporting examples which are peripherally related to the question. Analysis (key points and valid generalisations) is very limited or not present. Evaluation is severely lacking in detail and understanding is weak.	1–3	
Evaluation (positive and negative points) is limited . Range of evaluative points, which may or may not include the named issue, is limited. Points hint at issues/debates, methods or approaches but with little or no organisation into issues. Poor use of supporting examples. Analysis (key points and valid generalisations) is sparse. Evaluation is lacking in detail and understanding is sparse. NB If evaluation is 'by study' with same issues identified repeatedly with no positive or negative points of issues, however good examples are, maximum 6 marks. NB If the issue stated in the question is not addressed, maximum 6 marks. NB If only the issue stated in the question is addressed, maximum 4 marks.	4–6	
Evaluation (positive and negative points) is good . Range of evaluative issues/debates, methods or approaches, including the named issue, is good and is balanced. The answer has some organisation of evaluative issues (rather than 'study by study'). Good use of appropriate supporting examples which are related to the question. Analysis (key points and valid generalisations) is often evident. Evaluation has good detail and understanding is good.	7–9	

© UCLES 2018 Page 5 of 28

October/November 2018

Section B: Essay question: (b) = 12 marks	
Evaluation (positive and negative points) is comprehensive . Selection and range of evaluative issues/debates, methods or approaches, <u>including the named issue</u> , is very good and which are competently organised. Effective use of appropriate supporting examples which are explicitly related to the question. Analysis (valid conclusions that effectively summarise issues and arguments) is evident throughout. Evaluation is detailed and understanding is thorough.	10- 12

© UCLES 2018 Page 6 of 28

PSYCHOLOGY AND EDUCATION

Question	Answer	Marks
Section A: Short answer question: (a) = 2 marks		
1(a)	Explain, in your own words, what is meant by 'special educational needs'.	2
	Typically: A special educational need is where a child has needs which are different to the norm, either because they are gifted or they have a difficulty or disability. This means the child may need different strategies or facilities which are different and are suited to the need.	
	Marks: 1 mark basic and 2 marks elaboration.	
	Section A: Short answer question: (b) = 4 marks	
1(b)	Describe <u>two</u> special educational needs.	4
	 Syllabus: definitions, types and assessment of special educational needs (including gifted children) definitions of special educational need and giftedness; types of special educational need (e.g. dyslexia; attention deficit hyperactive disorder ADHD), autistic spectrum disorders and giftedness (e.g. Bridges, 1969). 	
	 Most likely: giftedness (elaboration could be one or more types) difficulty or disability (elaboration could be dyslexia, dyscalculia, etc.; Attention deficit hyperactive disorder; autistic spectrum disorder. Although no longer on the syllabus disabilities such as partial sightedness to receive credit. 	
	Marks: 1 mark identification and 1 mark for each description/elaboration ×2	

© UCLES 2018 Page 7 of 28

Question	Answer	Marks	
Section B: Essay question: (a) = 8 marks			
2(a)	Describe what psychologists have found out about learning and teaching styles. Candidates are likely to include some of the following details from the	8	
	 syllabus: learning styles and teaching styles: The onion model (Curry, 1983); Grasha's (1996) six styles of learning. Teaching styles: formal and informal styles (Bennett, 1976); High-initiative and low-initiative (Fontana, 1995) 		
	 measuring learning styles and teaching styles Learning: Approaches to study Inventory (ASI) (Entwistle, 1981). Teaching: teacher-centred and student-centred styles (Kyriacou and Williams, 1993); Kolb's (1976) learning styles. improving learning effectiveness (study skills) the 4-mat system 		
	(McCarthy, 1990); PQRST method: learning from textbooks; Strategies for effective learning and thinking (SPELT) Mulcahy et al. (1986).		
	Section B: Essay question: (b) = 12 marks		
2(b)	Evaluate what psychologists have found out about learning and teaching styles, including a discussion about the methods used to gather data.	12	
	NOTE: any evaluative point can receive credit; the hints are for guidance only.		
	Evaluation of theory: internal strengths and weaknesses; theoretical issues: reductionism, determinism, ethnocentrism. Supporting/contradicting evidence; Comparisons and contrasts with alternative theory.		
	Evaluation of research: strengths and weaknesses of methods, sample, controls, procedure. Evaluation of and comparisons and/or contrasts with alternative methodologies.		
	Evaluation of issues and debates: Any relevant debate can be raised, such as qualitative versus quantitative data, snapshot versus longitudinal studies, extent of ecological validity, nature versus nurture; freedom versus determinism; reductionism versus holism. Issues can be raised such as ethics, validity, ethnocentrism, effectiveness, application to real life.		
	Named issue: different methodologies: Candidates should compare and/or contrast the different methodologies used to investigate teaching/learning styles. Reference to the second bullet point above reveals the most likely studies to be included, each of which has many advantages and disadvantages.		

© UCLES 2018 Page 8 of 28

Question	Answer	Marks
Section C: Application question (a) = 8 marks		
3	One behaviourist application is programmed learning, but this may not be most effective way in which to learn.	e the
3(a)	Suggest how <u>you</u> would design and conduct an experiment to determine whether programmed learning is an effective technique.	8
	General: In this question part each candidate is free to suggest a way in which the assessment request could be investigated; the 'you' is emphasised to show that in this question it is not description that is being assessed, but an individual suggestion. The question may be in the form of a suggestion for research, or an application. The question may allow a candidate a free choice of method to design their own study. It might be that a specific method is named in the question, and if it is this method must be addressed. Each answer should be considered individually as it applies to the mark scheme. Marks are awarded for methodological knowledge and how the methodology is applied to this topic area. Specific: The named method is an experiment, so inclusion of type of experiment, IV and DV, controls, and design, task to be completed and sample for example are essential features. NB not all these features are needed for a max mark.	
	Section C: Application question (b) = 6 marks	
3(b)	Describe how behaviourists explain how children learn.	6
	Syllabus: behaviourist applications to learning underlying theory (classical and operant conditioning); applications such as programmed learning and behaviour modification techniques (controlling disruptive behaviour) Most likely:	
	Candidates may describe the basics of operant conditioning, perhaps the work of Skinner. They might include positive reinforcement and punishment and negative reinforcement and punishment. Classical conditioning is inappropriate though credit can be given if the point is justified.	

© UCLES 2018 Page 9 of 28

Question	Answer	Marks
	Section C: Application question (a) = 8 marks	
4	4 You have devised a new intelligence test.	
4(a)	Suggest how <u>you</u> would test the reliability and validity of your intelligence test.	8
	General : In this question part each candidate is free to suggest a way in which the assessment request could be investigated; the 'you' is emphasised to show that in this question it is not <i>description</i> that is being assessed, but an individual <i>suggestion</i> . The question may be in the form of a suggestion for research, or an application. The question may allow a candidate a free choice of method to design their own study. It might be that a specific method is named in the question, and if it is this method must be addressed. Each answer should be considered individually as it applies to the mark scheme. Marks are awarded for methodological knowledge and how the methodology is applied to this topic area.	
	 Reliability concerns the consistency of a test. A good test should give the same (or very similar) score when applied on different occasions. Reliability is usually determined using test-retest, where the same test is given say three weeks after the original test. Also appropriate is splithalf, where two halves of the test should result in equal half marks. Validity is whether the test measures what it claims. There are different types of validity, for example, concurrent validity is how well the results of a test match with those of a different form of the same test that already exists. 	
	Marks: 4 marks for validity and 4 marks for reliability	
	Section C: Application question (b) = 6 marks	
4(b)	Describe types of intelligence test.	6
	 Syllabus: concept, types and tests of intelligence concept of intelligence and IQ; types of intelligence tests Stanford-Binet; Wechsler (WAIS and WISC; BAS). Reliability, validity and predictive validity. Intelligence and educational performance. 	
	 Most likely: Candidates could write about IQ tests, such as those by Wechsler (e.g. WAIS and WISC). Alternatively breaking tests down into 'verbal' and 'performance' is also acceptable. Candidates could look at different tests such as the British Ability Scale. Also acceptable are tests for emotional intelligence, for example. Marks: 3 marks for each type. 1 mark for identification and up to 2 marks for elaboration including use of examples. 	

© UCLES 2018 Page 10 of 28

PSYCHOLOGY AND HEALTH

Question	Answer	Marks
	Section A: Short answer question: (a) = 2 marks	
5(a)	Explain, in your own words, what is meant by 'disclosure of information' to a health practitioner.	2
	Typically : the amount of information a patient gives to a health practitioner during a consultation. Some patients will tell the truth, others not and some will provide partial information and hide symptoms.	
	Marks: 1 mark for basic statement and 1 mark for elaboration.	
	Section A: Short answer question: (b) = 4 marks	
5(b)	Describe <u>one</u> study which has investigated the disclosure of patient information to a health practitioner.	4
	 Syllabus: patient and practitioner diagnosis and style Practitioner style: doctor and patient centred (Byrne and Long, 1976; Savage and Armstrong, 1990). Practitioner diagnosis: type I and type II errors. Disclosure of information (e.g. Robinson and West, 1992) 	
	 Most likely: Robinson and West (1992) studied people attending a centre for sexually transmitted diseases and found more information about symptoms and undesirable behaviours were given to a computer (e.g. the number of sexual partners) than a face-to-face consultation with a doctor. 	
	Marks: 1 mark for identification of study and 3 further marks for description of study with elaboration.	

© UCLES 2018 Page 11 of 28

Question	Answer	Marks	
	Section B: Essay question: (a) = 8 marks		
6(a)	Describe what psychologists have learned about health and safety.	8	
	 Candidates are likely to include some of the following details from the syllabus: definitions, causes and examples: Definitions of accidents; causes: theory A and theory B (Reason, 2000); examples of individual and system errors (e.g. Three mile island, 1979; Chernobyl, 1986). accident proneness and personality: Accident prone personality; personality factors e.g. age, personality type Human error (e.g. Riggio, 1990), illusion of invulnerability (e.g. The Titanic), cognitive overload (e.g. Barber, 1988). reducing accidents and promoting safety behaviours: reducing accidents at work: token economy (e.g. Fox et al., 1987); reorganising shift work; safety promotion campaigns (e.g. Cowpe, 1989). 		
	Section B: Essay question: (b) = 12 marks		
6(b)	Evaluation of research: strengths and weaknesses of methods, sample, controls, procedure. Evaluation of and comparisons and/or contrasts with alternative methodologies. Evaluation of issues and debates: Any relevant debate can be raised, such as qualitative versus quantitative data, snapshot versus longitudinal studies, extent of ecological validity, ethnocentrism, effectiveness, application to real life. Named issue: different promotion strategies: candidates might also mention reorganising shiftwork patterns.	12	

© UCLES 2018 Page 12 of 28

Question	Answer	Marks
	Section C: Application question (a) = 6 marks	
7	Some people prefer to use 'alternative' techniques to manage pain, but it is known whether these alternative techniques are effective when compared medical or psychological techniques.	
7(a)	Describe two 'alternative' techniques used to manage pain.	6
	 Syllabus: managing and controlling pain: Medical techniques (e.g. surgical; chemical). Psychological techniques: cognitive strategies (e.g. attention diversion, non-pain imagery and cognitive redefinition); alternative techniques (e.g. acupuncture, stimulation therapy/TENS) Most likely (any appropriate alternative to receive credit): Acupuncture is where stainless steel needles are used to stimulate the body's 14 major meridians to increase the release of neurotransmitters called endorphins which block pain. TENS: stimulation therapies are based on the principle 'fight pain with pain', or counter irritation which directs attention away from the stronger pain to the milder pain. One such pain control method is transcutaneous electrical nerve stimulation (TENS). Electrodes are placed on the skin near where the patient feels pain and mild electric shocks are given, causing distraction. Partial success with chronic pain: not good with phantom limb, but good with arthritis. Marks: up to 3 marks for each appropriate alternative technique. 	
	Section C: Application question (b) = 8 marks	
7(b)	Suggest how you would design and conduct an investigation into the effectiveness of alternative techniques to manage pain. General: In this question part each candidate is free to suggest a way in which the assessment request could be investigated; the 'you' is emphasised to show that in this question it is not description that is being assessed, but an individual suggestion. The question may be in the form of a suggestion for research, or an application. The question may allow a candidate a free choice of method to design their own study. It might be that a specific method is named in the question, and if it is this method must be addressed. Each answer should be considered individually as it applies to the mark scheme. Marks are awarded for methodological knowledge and how the methodology is applied to this topic area. Specific: Candidates are free to choose any method. The choice of method should be appropriate and the answer should include the essential features of that method. Marks awarded for methodological knowledge and how methodology is applied to this topic area.	8

© UCLES 2018 Page 13 of 28

Question	Answer	Marks
Section C: Application question (a) = 8 marks		
8	A group of children saw a presentation about how to cycle more safely. It is important to know how many children will use this information.	
8(a)	Suggest how <u>you</u> would design and conduct an interview to find out whether the presentation to promote cycle safety was effective.	8
	General : In this question part each candidate is free to suggest a way in which the assessment request could be investigated; the 'you' is emphasised to show that in this question it is not <i>description</i> that is being assessed, but an individual <i>suggestion</i> . The question may be in the form of a suggestion for research, or an application. The question may allow a candidate a free choice of method to design their own study. It might be that a specific method is named in the question, and if it is this method must be addressed. Each answer should be considered individually as it applies to the mark scheme. Marks are awarded for methodological knowledge and how the methodology is applied to this topic area.	
	Specific: The named method is an interview so candidates should show some knowledge of types of interview techniques (e.g. face-to-face; telephone). Fixed questions could be asked (structured interview) or it could be open-ended to gain additional information. The answer must consider 'children' as this is required in the question.	
	Section C: Application question (b) = 6 marks	
8(b)	Describe one study which has used the 'providing information' method.	6
	 Syllabus: methods for promoting health: Fear arousal (e.g. Janis and Feshbach, 1953; Leventhal et al, 1967). Yale model of communication. Providing information (e.g. Lewin, 1992) Most likely (any appropriate study receives credit): Providing medical information via leaflet Lewin (1992) devised the 	
	Heart Health Manual. 176 participants (who had had a heart attack) were given the manual with information about how to change their lifestyle. A control group did not receive the manual. Findings were that in the 'manual' group readmission was less than 10% compared to the control group of 25%. • providing information via media (e.g. Flay, 1987) 3 approaches: 1] provide negative info only; 2] for those who want to be helped provide first steps; 3] self help via TV audience	
	Marks: up to 6 marks determined by quality of answer.	

© UCLES 2018 Page 14 of 28

PSYCHOLOGY AND ENVIRONMENT

Question	Answer	Marks
	Section A: Short answer question: (a) = 2 marks	
9(a)	Explain, in your own words, what is meant by 'positive uses of sound (music) on stress reduction'.	2
	Typically : noise is defined as 'unwanted' sound, and so the positive uses of sound (music) are said to be pleasant, and people feel good. In relation to consumer behaviour, music has been shown to reduce blood pressure for example. It has also been shown to aid stroke recovery.	
	Marks: 1 mark for comment on sound (music); 1 mark for comment relating to stress reduction.	
	Section A: Short answer question: (b) = 4 marks	
9(b)	Describe <u>one</u> study which has investigated the effect of music on stress reduction.	4
	 Syllabus: positive uses of sound (music): Consumer behaviour (e.g. North, 2003; North 1999); stress reduction (e.g. Chafin, 2004); performance (e.g. Mozart effect) 	
	 Most likely: Chafin (2004) had participants perform a challenging three-minute mental arithmetic task and then had to sit in silence or to listen to classical, jazz or pop music. Those who listened to classical music had significantly lower post-task systolic blood pressure levels than did participants who heard no music. Other musical styles did not produce significantly better recovery than silence. 	
	Marks: up to 4 marks determined by quality of answer.	

© UCLES 2018 Page 15 of 28

Question	Answer	Marks
Section B: Essay question: (a) = 8 marks		
10(a)	Describe what psychologists have discovered about environmental cognition.	8
	Candidates are likely to include some of the following details from the syllabus: • definitions, measures, errors and individual differences in	
	cognitive map: Definitions, measures: sketch maps (Lynch, 1960); multidimensional scaling (e.g. Moar, 1987); errors and individual differences (e.g. Malinowski, 2001).	
	• cognitive maps in animals: Cognitive maps in: squirrels (Jacobs and Linman, 1991); bees (Capaldi, 2000); pigeons and magnetite (Walcott, 1979).	
	 designing better maps: wayfinding. Map design (Levine, 1982); wayfinding (Maguire et al., 1997); virtual wayfinding (Janzen et al., 2001). 	
	Section B: Essay question: (b) = 12 marks	
10(b)	Evaluate what psychologists have discovered about environmental cognition, including a discussion of whether findings of studies conducted on animals can be generalised to humans.	12
	NOTE: any evaluative point can receive credit; the hints are for guidance only.	
	Evaluation of theory: internal strengths and weaknesses; theoretical issues: reductionism, determinism, ethnocentrism.	
	Supporting/contradicting evidence; Comparisons and contrasts with alternative theory.	
	Evaluation of research: strengths and weaknesses of methods, sample, controls, procedure. Evaluation of and comparisons and/or contrasts with alternative methodologies.	
	Evaluation of issues and debates: Any relevant debate can be raised, such as qualitative versus quantitative data, snapshot versus longitudinal studies, extent of ecological validity, nature versus nurture; freedom versus determinism; reductionism versus holism. Issues can be raised such as ethics, validity, ethnocentrism, effectiveness, application to real life.	
	Named issue: Animals: the debate could focus on generalising from animals to humans and/or whether animal studies should be conducted in a laboratory or a natural environment.	

© UCLES 2018 Page 16 of 28

Question	Answer	Marks	
	Section C: Application question (a) = 8 marks		
11	Research has been done on how people behave in emergency situations (natural disasters/technological catastrophes) using simulations such as virtual reality computer programs.		
11(a)	Suggest how you would design a study using a simulation to investigate how people behave in emergency situations.	8	
	General: In this question part each candidate is free to suggest a way in which the assessment request could be investigated; the 'you' is emphasised to show that in this question it is not description that is being assessed, but an individual suggestion. The question may be in the form of a suggestion for research, or an application. The question may allow a candidate a free choice of method to design their own study. It might be that a specific method is named in the question, and if it is this method must be addressed. Each answer should be considered individually as it applies to the mark scheme. Marks are awarded for methodological knowledge and how the methodology is applied to this topic area. Specific: The named method is a simulation, so candidates are expected to show knowledge of simulations. This could be conducted in a laboratory as an experiment with VR used to determine the IV etc. This could be used as a field experiment with (for example) participants on an actual aircraft who are told to evacuate. In these cases, all the features of experiments would apply.		

© UCLES 2018 Page 17 of 28

Question	Answer	Marks
Section C: Application question (b) = 6 marks		
11(b)	Describe <u>two</u> other ways in which behaviour in emergency situations has been investigated.	6
	 Syllabus: behaviours during events, and methodology: Contagion (LeBon, 1895); scripts (Shank and Abelson, 1977). Laboratory experiments (e.g. Mintz, 1951), simulations and real life examples 	
	 Most likely: Mintz (1951) laboratory: each participant pulls on a string attached to a cone in a bottle. Only one cone can be removed at a time. Cones must be removed before water fills bottle. Problem solved if participants take turns but they do not. All rush to get cone out first. Mintz believes this replicated, safely, the behaviour of people in a real emergency situation. It had psychological realism. Kugihara (2007) laboratory: used a computer generated 'game' to investigate how people behave. Real life events such as the Chicago theatre fire. Rubin et al. (2005) used a telephone interview to investigate the effects of the London bombings on travel intentions and desire to seek or use psychological services. Drury et al. (2007) used face-to-face interviews to investigate how survivors of emergency situations behaved during the event. Marks: up to 3 marks for each appropriate answer. NB Candidates may focus on methods, and these would include interviews 	
	and laboratory experiments (as above). NB Two distinct ways required for full credit.	

© UCLES 2018 Page 18 of 28

Question	Answer	Marks
Section C: Application question (a) = 8 marks		
12	Edward Hall proposed four personal space zones that apply when interacting with other people.	
12(a)	Suggest how <u>you</u> would design and conduct an observational study to investigate whether people do have different zones for different people.	8
	General : In this question part each candidate is free to suggest a way in which the assessment request could be investigated; the 'you' is emphasised to show that in this question it is not <i>description</i> that is being assessed, but an individual <i>suggestion</i> . The question may be in the form of a suggestion for research, or an application. The question may allow a candidate a free choice of method to design their own study. It might be that a specific method is named in the question, and if it is this method must be addressed. Each answer should be considered individually as it applies to the mark scheme. Marks are awarded for methodological knowledge and how the methodology is applied to this topic area.	
	Specific: The named method is an observation , so candidates are expected to show knowledge of the type (controlled, natural, participant, etc.), where the observation will be conducted, coding/response categories and sampling type (event, time, etc.). Finally, whether or not there are two or more observers. NB not all these features are needed for a max mark.	
	Section C: Application question (b) = 6 marks	
12(b)	Describe <u>two</u> ways in which personal space has been measured, other than by observation.	6
	 Syllabus: definitions, types and measures: Defining space (e.g. Hall, 1966) and territory (e.g. Altman, 1975). Alpha space and beta space. Measuring space: simulation (e.g. Little, 1968); stop-distance; space invasions. Most likely: Simulation method (e.g. Little 1968 measured cultural differences in personal space). Stop-distance (The participant usually is asked to stand some distance away and then to walk slowly toward the experimenter and to stop at a 'comfortable' point. E.g. Kennedy et al. (2009) and 'SM') Comfortable interpersonal distance scale (CIDS) Invasion of personal space (e.g. studies by Felipe and Sommer (1966) 	
	and Middlemist et al. (1974) Marks: 3 marks for each description ×2. No credit for description of Hall's zones as this is in part (a)	

© UCLES 2018 Page 19 of 28

PSYCHOLOGY AND ABNORMALITY

Question	Answer	Marks
Section A: Short answer question: (a) = 2 marks		
13(a)	Explain, in your own words, what is meant by 'cognitive-behavioural therapy' (CBT).	2
	Typically : Cognitive therapy is based on the principle that certain ways of thinking can trigger, or 'fuel', certain health problems. The aim is to change ways of thinking to avoid these ideas. Behaviour therapy aims to change any behaviours that are harmful or not helpful. CBT is a mixture of cognitive and behaviour therapies combined because behaviour often reflects thoughts about certain things or situations.	
	Marks: 1 for basic; 2 marks for elaboration.	
	Section A: Short answer question: (b) = 4 marks	
13(b)	Describe <u>one</u> study which has used cognitive-behavioural therapy (CBT) to treat kleptomania.	4
	 Syllabus: coping with and reducing addiction and impulse control disorders: Behavioural e.g. token economy; aversion therapy (for alcoholism). Cognitive behaviour therapy (e.g. Kohn, 2000) for kleptomania 	
	 Most likely: Kleptomania: is where a person has a need to collect (and/or hoard) things, often through stealing. The euphoria is gained though the act of stealing. Three treatments are likely: Kohn and Antonuccio (2002) used covert sensitisation with images of getting arrested, going to court and spending time in jail successfully in the case study of Jay. Glover (2011) used images of nausea and vomiting to treat a 14 year old with a history of kleptomania. Candidates may also write about studies involving Imaginal desensitisation: teaching progressive muscle relaxation and the person visualises themselves being exposed to the situation that triggers the drive to carry out the impulsive behaviour. 	
	Marks: up to 4 marks determined by quality of answer.	

© UCLES 2018 Page 20 of 28

Question	Answer	Marks
Section B: Essay question: (a) = 8 marks		
14(a)	Describe what psychologists have discovered about phobias.	8
	 Candidates are likely to include some of the following details from the syllabus: definitions, types/examples (case studies) of phobias: Types: e.g. agoraphobia, blood phobia, dog phobia. explanations of phobias: Behavioural (classical conditioning, e.g. Watson, 1920); Psychoanalytic (Freud, 1909); biomedical/genetic (e.g. Ost, 1992); cognitive (e.g. DiNardo et al., 1988). treating phobias: Systematic desensitisation (Wolpe, 1958); flooding; applied tension (Ost et al., 1989); cognitive-behaviour therapy (Ost and Westling, 1995). 	
	Section B: Essay question: (b) = 12 marks	
14(b)	Evaluate what psychologists have discovered about phobias, including a discussion about the psychoanalytic explanation of phobias. NOTE: any evaluative point can receive credit; the hints are for guidance	12
	 <u>Evaluation of theory</u>: internal strengths and weaknesses; theoretical issues: reductionism, determinism, ethnocentrism. Supporting/contradicting evidence; Comparisons and contrasts with alternative theory. 	
	Evaluation of research: strengths and weaknesses of methods, sample, controls, procedure. Evaluation of and comparisons and/or contrasts with alternative methodologies.	
	Evaluation of issues and debates: Any relevant debate can be raised, such as qualitative versus quantitative data, snapshot versus longitudinal studies, extent of ecological validity, nature versus nurture; freedom versus determinism; reductionism versus holism. Issues can be raised such as ethics, validity, ethnocentrism, effectiveness, application to real life.	
	Named issue: psychoanalytic explanations. Candidates could write about the psychoanalytic approach in general (but most likely the Freud study of little Hans) and this is acceptable if it is part of the discussion. Description cannot be credited. The psychoanalytic explanation could be contrasted with a behavioural or cognitive explanation (which is highly desirable), but description of alternatives scores no marks.	

© UCLES 2018 Page 21 of 28

Question	Answer	Marks		
	Section C: Application question (a) = 6 marks			
An ongoing debate for psychologists is whether depression is caused by 'biology' or by 'psychology'.				
15(a)	Describe the genetic explanation of depression <u>and</u> the cognitive explanation of depression.	6		
	 Syllabus: explanations of depression: Biological: genetic and neurochemical; cognitive: Beck's cognitive theory; learned helplessness/attributional style (Seligman, 1979). 			
	 Genetic: Depression runs in families and the closer the genetic relationship, the more likely people are to be diagnosed with the disorder. Close family members, such as brothers, sisters, sons, daughters, fathers and mothers – share 50% of their genes. According to Oruc et al. (1998) first degree relatives of people diagnosed with depression are two or three times more likely to be diagnosed with depression than those who are not first degree relatives. Cognitive: (candidates can legitimately choose 'Beck' or 'Seligman') Seligman (1979) suggested that a person's attributional style was the key to understanding why people responded differently to adverse events. Seligman et al. (1988) If a person makes an internal attribution (they are the cause) and if they believe that this is stable and global (the cause is consistent and this applies everywhere) then they may feel helpless and may experience depression. Beck (1979) proposes that people react differently to aversive stimuli because of the thought that predispose the person to have negative automatic thoughts (NATs). When that happens, cognitive errors maintain the negative beliefs. Depression results from the negative cognitive triad, comprising unrealistically negative views about (i) the self, (ii) the world and (iii) the future. 			
	Marks: 3 marks for each explanation.			

© UCLES 2018 Page 22 of 28

Question	Answer	Marks				
	Section C: Application question (b) = 8 marks					
15(b)	Suggest how <u>you</u> would design and conduct a study to investigate whether the cause of depression is 'biology' or 'psychology'.	8				
	General: In this question part each candidate is free to suggest a way in which the assessment request could be investigated; the 'you' is emphasised to show that in this question it is not description that is being assessed, but an individual suggestion. The question may be in the form of a suggestion for research, or an application. The question may allow a candidate a free choice of method to design their own study. It might be that a specific method is named in the question, and if it is this method must be addressed. Each answer should be considered individually as it applies to the mark scheme. Marks are awarded for methodological knowledge and how the methodology is applied to this topic area. Specific: Candidates are free to choose any method. The choice of method should be appropriate and the answer should include the essential features of that method. Marks awarded for methodological knowledge and how methodology is applied to this topic area.					

© UCLES 2018 Page 23 of 28

Section C: Application question (a) = 8 marks Sometimes drugs are prescribed for people with obsessive-compulsive (OCD). Suggest how you would design and conduct a study using an interview to compare the effectiveness of drug treatments for OCD.	disorder 8
(OCD). Suggest how <u>you</u> would design and conduct a study using an interview to compare the effectiveness of drug treatments for OCD.	
interview to compare the effectiveness of drug treatments for OCD.	8
General: In this question part each candidate is free to suggest a way in which the assessment request could be investigated; the 'you' is emphasised to show that in this question it is not description that is being assessed, but an individual suggestion. The question may be in the form of a suggestion for research, or an application. The question may allow a candidate a free choice of method to design their own study. It might be that a specific method is named in the question, and if it is this method must be	
addressed. Each answer should be considered individually as it applies to the mark scheme. Marks are awarded for methodological knowledge and how the methodology is applied to this topic area. Specific: The named method is an interview so candidates should show some knowledge of types of interview techniques (e.g. face-to-face; telephone). Fixed questions could be asked (structured interview) or it could be open-ended to gain additional information.	
Section C: Application question (b) = 6 marks	
 Syllabus: treatments for obsessive/compulsive disorder: Drug therapy; cognitive-behaviour therapy; psychoanalytic therapy. Most likely: Cognitive behavioural therapy changes the way a person thinks (the cognitive part) and the way a person behaves (the behavioural part). It may focus on how a person responds to a particular situation. This is done not by going back to the cause of the problem, but by focusing on the present symptoms. It works by looking at how a person thinks about how an event has affected how they felt and what they did. If negative thoughts can be reinterpreted or changed for more positive or realistic thoughts, then the person will feel better and their behaviour will change. All of this should be applied specifically to OCD. Psychoanalytic psychotherapy is a 'talking treatment' aimed at resolving the conflict arising from the id and ego. To access the unconscious free association can be used. Marks: 3 marks per way, determined by quality of answer. 	6
eaacaath Ssteb DS.	mphasised to show that in this question it is not description that is being ssessed, but an individual suggestion. The question may be in the form of suggestion for research, or an application. The question may allow a andidate a free choice of method to design their own study. It might be that specific method is named in the question, and if it is this method must be ddressed. Each answer should be considered individually as it applies to the mark scheme. Marks are awarded for methodological knowledge and ow the methodology is applied to this topic area. Specific: The named method is an interview so candidates should show ome knowledge of types of interview techniques (e.g. face-to-face; elephone). Fixed questions could be asked (structured interview) or it could be open-ended to gain additional information. Section C: Application question (b) = 6 marks Describe two other ways in which OCD can be treated. Describe two other ways in which OCD can b

© UCLES 2018 Page 24 of 28

PSYCHOLOGY AND ORGANISATIONS

Question	Answer	Marks				
	Section A: Short answer question: (a) = 2 marks					
17(a)	Explain, in your own words, what is meant by the term 'job design'.					
	Typically : job design is the organisation of the job a worker performs. By changing the design (e.g. rotation) workers can work on different jobs.					
	Marks: 1 mark for basic statement and 2 marks for elaboration/example.					
	Section A: Short answer question: (b) = 4 marks					
17(b)	Describe <u>two</u> ways in which jobs can be designed.	4				
	 Syllabus: Job design: Job characteristics (e.g. Hackman & Oldham, 1980). Job design: enrichment, rotation and enlargement. Designing jobs that motivate. Most likely job rotation is where workers are moved from one task to another to avoid boredom. This may be done on a daily, weekly or even a monthly basis depending on the task. job enrichment is where workers are given more responsibility in the 					
	task they do. This may also include redesigning the task (as they are the user, the expert) or it may involve being responsible for a team of workers completing a task. • job enlargement allows workers to take on additional and more varied tasks. No change in responsibility or involvement but an increase in work-load.					
	Marks : 1 mark for identification of design and 1 mark for elaboration/ example ×2					

© UCLES 2018 Page 25 of 28

Question	Answer	Marks			
	Section B: Essay question: (a) = 8 marks				
18(a)	Describe what psychologists have learned about group behaviour in organisations.				
	Candidates are likely to include some of the following details from the syllabus: • Group dynamics, cohesiveness and teamwork: Group development (e.g. Tuckman 1965; Woodcock, 1979). Group cohesiveness, teambuilding and team performance. Characteristics of successful teams.				
	 Decision-making: The decision-making process (e.g. Wedley & Field, 1983). Decision style and individual differences in decision-making. Individual versus group decisions. Groupthink (e.g. Janis, 1972) and group polarisation. Strategies to avoid groupthink and training to avoid poor decisions (e.g. Bottger & Yetton, 1987) Group conflict: Major causes of group conflict: organisational and interpersonal. Positive and negative effects of conflict. Managing group conflict (e.g. Thomas, 1976). 				
	Section B: Essay question: (b) = 12 marks				
18(b)	Evaluate what psychologists have learned about group behaviour in organisations, including a discussion about individual differences. NOTE: any evaluative point can receive credit; the hints are for guidance only.	12			
	Evaluation of theory: internal strengths and weaknesses; theoretical issues: reductionism, determinism, ethnocentrism. Supporting/contradicting evidence; Comparisons and contrasts with alternative theory. Evaluation of research: strengths and weaknesses of methods, sample, controls, procedure. Evaluation of and comparisons and/or contrasts with alternative				
	methodologies. <u>Evaluation of issues and debates</u> : <i>Any relevant debate can be raised</i> , such as qualitative versus quantitative data, snapshot versus longitudinal studies, extent of ecological validity, nature versus nurture; freedom versus determinism; reductionism versus holism. Issues can be raised such as ethics, validity, ethnocentrism, effectiveness, application to real life.				
	<u>Named issue</u> : individual differences. This psychological approach takes more of an idiographic approach i.e it is interested in individual differences because of biology, culture, gender, ethnicity etc. In relation to group behaviour, is it possible to generalise from one worker in a group to others, or from one group to another, or are there individual differences?				

© UCLES 2018 Page 26 of 28

Question	Answer	Marks			
	Section C: Application question (a) = 6 marks				
19	Workers are motivated by different things and you need to find out what motivates workers the most.				
19(a)	Using examples, describe <u>two</u> types of reward system.	6			
	Syllabus: Motivators at work: Intrinsic and extrinsic motivation. Types of rewards systems: e.g. pay, bonuses, profit sharing. Performance-related pay. Non-monetary rewards: praise, respect, recognition, empowerment and a sense of belonging. Career structure and promotion prospects.				
	 Most likely: Candidates are likely to produce different types of answer in response to this question. Possibilities are: a distinction between intrinsic and extrinsic motivators. a distinction beteen monetary and non-monetary reward systems a distinction between specific types of a system (e.g. profit sharing and performance related pay) For examples of each, see syllabus details above. 				
	Marks: 3 marks for each type depending on quality of answer.				
	Section C: Application question (b) = 8 marks				
19(b)	Suggest how <u>you</u> would design and conduct a questionnaire study to find out what motivates workers the most.	8			
	General: In this question part each candidate is free to suggest a way in which the assessment request could be investigated; the 'you' is emphasised to show that in this question it is not description that is being assessed, but an individual suggestion. The question may be in the form of a suggestion for research, or an application. The question may allow a candidate a free choice of method to design their own study. It might be that a specific method is named in the question, and if it is this method must be addressed. Each answer should be considered individually as it applies to the mark scheme. Marks are awarded for methodological knowledge and how the methodology is applied to this topic area. Specific: The named method is a questionnaire so candidates are expected to show knowledge of questionnaire type/design (e.g. open or closed), examples of questions (that clearly relate to ethics and personal space), any rating scale that may be used, possibly where the questionnaire will be conducted, on whom, and how the answers will be scored. NB not all these features are needed for a max mark.				

© UCLES 2018 Page 27 of 28

Question	Answer	Marks		
	Section C: Application question (a) = 8 marks			
Beeps, buzzes and bells can be used as auditory warnings of machine malfunction				
20(a)	Suggest how <u>you</u> would design and conduct a field experiment to find out which sound is most effective in alerting workers to a machine malfunction.	8		
	General : In this question part each candidate is free to suggest a way in which the assessment request could be investigated; the 'you' is emphasised to show that in this question it is not <i>description</i> that is being assessed, but an individual <i>suggestion</i> . The question may be in the form of a suggestion for research, or an application. The question may allow a candidate a free choice of method to design their own study. It might be that a specific method is named in the question, and if it is this method must be addressed. Each answer should be considered individually as it applies to the mark scheme. Marks are awarded for methodological knowledge and how the methodology is applied to this topic area.			
	Specific : The named method is an experiment , so inclusion of field experiment, IV and DV, controls, and design, task to be completed and sample, for example, are essential features. NB not all these features are needed for a max mark.			
	Section C: Application question (b) = 6 marks			
20(b)	Using examples, describe different errors that could be made when operating machines.	6		
	 Ergonomics: Operator-machine systems: visual and auditory displays, controls. Errors and accidents in operator-machine systems. Reducing errors: theory A and theory B (Reason, 2000). Most likely (any other appropriate technique to be credited): Riggio (1990) suggests when operating machines there can be decision-making errors of: Omission: failing to do something, such as forgetting to turn something off, Commission: performing an act incorrectly i.e. doing something wrong, Sequence errors: doing something out of order; and Timing errors: doing something too quickly, or too slowly. Marks: at least two types are needed: 1 mark for correct identification, 			
_	1 mark for elaboration and 1 mark for example ×2.			

© UCLES 2018 Page 28 of 28

Academic School Year		Grade Levels	Total Projected Student Enrollment
Year 1	K-8		450
Year 2	K-9		500
Year 3	K-10		550
Year 4	K-11		600
Year 5	K-12		650

Area of Proposed Coverage

Comprehensive General Liability
Officers and Directors/Errors and Omissions
Property Insurance
Automobile Liability
Crime Coverage - Minimum/Maximum Amount
Worker's Compensation
Other Coverage
Total Cost

Proposed Amount of Coverage

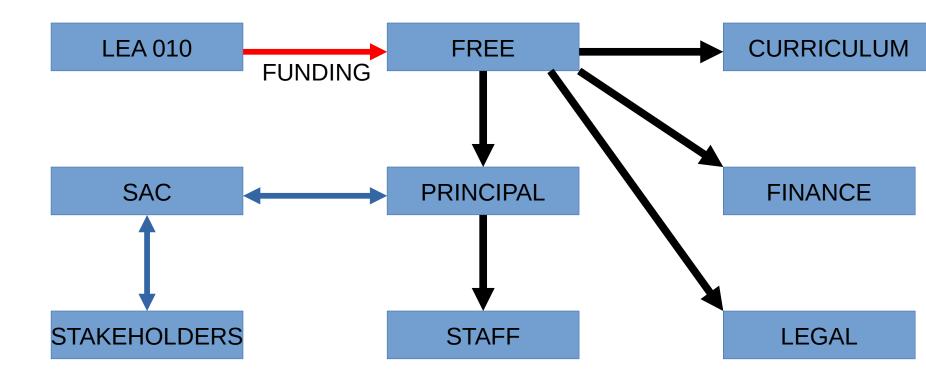
\$1,000,000.00/occurrence \$1,000,000.00/occurrence

\$1,000,000.00/occurrence \$250,000.00 | \$250,000.00 \$500,000.00

Cost (Quote)

\$43,376.00

ORGANIZATION CHART





Charter School Required Signature Certification

Note: Outlined below is a list of areas that must be certified by the proposed Board of Directors. Any forms Not Applicable to the proposed charter school indicate below with N/A and provide a brief explanation for providing such response.

Serving on a public charter school board is a position of public trust and board members of a North Carolina public charter school; you are responsible for ensuring the quality of the school's entire program, competent stewardship of public funds, the school's fulfillment of its public obligations, all terms of its charter, and understanding/overseeing all third-party contracts with individuals or companies.

	nies.	CHarter	, and understanding, overseeing an aira party conducts with marvadaes of
*	listed '	within tl on the E	Board Attorney that he/she has reviewed with the full Board of Directors, the application, all the governance documents and liabilities associated with Board of a Non-Profit Corporation. of the Selected Board Attorney: Guido de Maere
	0	Date o	f Review: April 8, 2022
	0	Signat	ure of Board Members Present (Add Signature Lines as Needed):
			Will Bosley
			Cheryl Hodge Chala Louise Cole Louise & Cole
			Louise Cole Louis La Cole
			Peter Morcombe

- The selected Board Auditor that he/she has reviewed with the full Board of Directors, listed within the application, all the items required for the annual audit and 990 preparations.
 - o Name of the Selected Board Auditor: Petway Mills & Pearson, PA
 - o Date of Review: April 8, 2022
 - o Signature of Board Members Present (Add Signature Lines as Needed):

Will Bosley	Mellen
Cheryl Hodge	Mode
Louise Cole	Louise 20. Colo
Peter Morcombe	e formation

- ❖ If contracting with a CMO/EMO, that the selected management company has reviewed with the full Board of Directors, listed within the application, all the items required and the associated management contract and operations.
 - O Name of the Contact for Selected EMO/CMO: Not applicable
 - o Date of Review: April 8, 2022
- ❖ If contracting with a financial management service provider that the selected financial service provider has reviewed with the full Board of Directors, listed within the application, all the financial processes and services provided.
 - o Name of the Contact: Nigel Bearman
 - o Name of the Selected Financial Service Provider: Nigel Bearman CPA
 - o Date of Review: April 8, 2022
 - o Signature of Board Members Present (Add Signature Lines as Needed):

Cheryl Hodge
Louise Cole
Peter Morcombe

What

Andrew

Louise Cole

Andrew

Louise Cole

Peter Morcombe ☐ Peter Morcombe

- ❖ If the proposed Board of Directors, listed within the application, is contracting with a service provider to operate PowerSchool that the service provider has reviewed all of the financial processes and services provided.
 - o Name of the Contact: Not applicable
 - o Date of Review: April 8, 2022

Certification

I, William Bosley, as Board Chair, certify that each Board Member has reviewed and participated in the selection of the individuals and vendors attached to this document as evidenced by the full Board of Director signatures outlined above. The information I am providing to the North Carolina State Board of Education as Unity Global Academy Charter School is true and correct in every respect. MUMAN

Signature: William Bosley Date: April 8, 2022

<u>Position</u>	Year 0	Year 1	Year 2	Year 3	
Principal/School Leader			1	1	1
Assistant Principal			1	1	1
Secretary/clerical			1	1	1
Additional School Leadership					
Core Classroom Teachers			27	30	33
Specialized Classroom Teachers (e.g. special education,					
ELL, foreign language, etc.)			2	2	3
Student Support Positions (e.g. social workers,					
psychologists, etc.)			0	0	0
Specialized School Staff			0	0	0
Teaching Aides or Assistants			6	6	6
School Operations Support Staff			6	7	7
			44	48	52

Year 4		Year 5	
	1		1
	1		1
	1		1
	36		39
	3		3
	0		0
	0		0
	6		6
	8		8
	56		59

Jennifer L. Talley
Mayor Elect – City of Graham
201 S. Main St.
Graham, NC 27253
336-516-1460



December 14, 2021

To Whom It May Concern:

As the newly elected Mayor and having served for 9 years on Council prior, I am writing to you to express my support for the construction of a new charter school, Unity Global Academy, in the Graham area, specifically zip codes 27258 and 27253.

The benefits of charter schools in our community are numerous. They serve as a catalyst for the economy by becoming "destination schools" with parents sometimes driving great distances to have their children attend. The truth is people want to be located in a good school district and they are willing to move to ensure that they are located in a successful school district. Parents want their kids to have all the opportunities that a good education can provide. In a recent study by Trulia, homes located within a good school district have higher resale values and tend to hold their value more than homes in lower quality school districts. Parents, particularly in our area, are looking for alternatives to traditional public school.

Many traditional public school parents and students are frustrated with the consolidated district school board (Alamance Burlington School System) because there is only one school board member that has a child in the school system. These board members are elected by the general public rather than from the local school population. These parents are demanding representation and want "options" that afford them local representation from the school their child is attending. Charter schools provide that. The large number of frustrated parents month after month in attendance at school board meetings in Alamance County are a symptom of this lack of representation.

Graham High School has the lowest 4-year graduation rate in the county for 2020-2021 at 77.5% (up from 2018-2019 at 68.7%), which is concerning considering students didn't attend "in class" learning for most of 2020 due to COVID. River Mill Academy along with other charter schools consistently have graduation rates greater than 90% with River Mill Academy's graduation rate being greater than 95% for the 2020-2021 year. The existing waitlist to get into charter schools in this area exceed 500-1,000 students annually.

Graham is experiencing substantial growth in our Highway 54 area and a large number of industrial jobs from businesses like Amazon, Lidl, Walmart and UPS have recently located here. Graham High School, which currently serves 786 students, will be transitioning to a specialized trade school. This will create an additional need to service traditional students and Unity Global Academy would help fill that need.

I hope that you consider the needs of the citizens when evaluating the Unity Global Charter School proposal and approve the project. This additional charter school can only serve as a win for the citizens of Graham and would have a lasting, positive impact on the local community. Thank you for your consideration of this request.

Sincerely,

ennifer Talley

Mayor Elect, City of Graham

No school leader has been identified.