Tri-County Academy of STEM

A K-12 Charter School of
Men and Women United For Youth & Families, CDC

"Tri County Academy is the
STEM of Global Society"

A Charter Day School Proposal for Fall 2012

Submitted By
Men and Women for Youth and Families, CDC
44 Dream Avenue
Delco, North Carolina 28436
910.655.0698
Randolph Keaton, Executive Director

Submitted to
North Carolina of Department of Instruction
Office of Charter Schools
Raleigh, North Carolina 27601

November 10, 2011
I. APPLICATION COVER PAGES

NAME OF PROPOSED CHARTER SCHOOL: Tri-County Academy of STEM

NAME OF NONPROFIT ORGANIZATION UNDER WHICH CHARTER WILL BE ORGANIZED OR OPERATED: Men and Women United for Youth and Families, CDC

HAS THE ORGANIZATION APPLIED FOR 501(c)(3) NON-PROFIT STATUS: Yes ☑ No ☐

Provide the name of the person who will serve as the primary contact for this Application. The primary contact should serve as the contact for follow-up, interviews, and notices regarding this Application.

NAME OF CONTACT PERSON: Devoria K. Berry

TITLE/RELATIONSHIP TO NONPROFIT: Vice Chairperson

MAILING ADDRESS: 44 Dream Avenue, Delco, NC 28436

PRIMARY TELEPHONE: 910.655.0698 Ext. 100 ALTERNATE TELEPHONE: 910.655.3811

E-MAIL ADDRESS: tricountyacademy@gmail.com

Location of Proposed Charter School (LEA): Columbus

Conversion:

No: ☐

Yes: ☑ If so, Public ☐ or Private ☑

If a private school, give the name of the school being converted: Tri-County Academy of STEM

If a public school, give the name and six-digit identifier of the school being converted: ______ - ______ - ______

Description of Targeted Population:

At-Risk youth (that being of such students from single parent homes, low income/low wealth and those who need behavior, social or academic supports), African Americans, Latinos, and Native Americans.
Proposed Grades Served: K-12  Proposed Initial Enrollment: 55

Projected School Opening Year 2012  Month August

<table>
<thead>
<tr>
<th>School Year</th>
<th>Grade Levels</th>
<th>Total Projected Student Enrollment</th>
<th>Year Round</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Year</td>
<td>K-3</td>
<td>55</td>
<td>X</td>
</tr>
<tr>
<td>Second Year</td>
<td>K-6</td>
<td>300</td>
<td>X</td>
</tr>
<tr>
<td>Third Year</td>
<td>K-7</td>
<td>360</td>
<td>X</td>
</tr>
<tr>
<td>Fourth Year</td>
<td>K-8</td>
<td>432</td>
<td>X</td>
</tr>
<tr>
<td>Fifth Year</td>
<td>K-9</td>
<td>518</td>
<td>X</td>
</tr>
<tr>
<td>Sixth Year</td>
<td>K-10</td>
<td>620</td>
<td>X</td>
</tr>
<tr>
<td>Seventh Year</td>
<td>K-11</td>
<td>744</td>
<td>X</td>
</tr>
<tr>
<td>Eight Year</td>
<td>K-12</td>
<td>893</td>
<td>X</td>
</tr>
</tbody>
</table>

I certify that I have the authority to submit this application and that all information contained herein is complete and accurate, realizing that any misrepresentation could result in disqualification from the application process or revocation after award. I understand that incomplete applications will not be considered. The person named as the contact person for the application is so authorized to serve as the primary contact for this application on behalf of the applicant.

Signature: Devoia K. Berry
Printed Name: Devoia K. Berry
Title: Vice Chair
Date: 11/9/11
# TABLE OF CONTENTS FOR THE APPLICATION

I  Application Cover Page of Tri-County Academy of STEM ........................................... 4
II  Table of Contents ........................................................................................................... 6
III Mission, Purpose and Education Focus .......................................................................... 7
     Mission ......................................................................................................................... 7
     Purpose of Proposed Charter School ........................................................................... 10
     Educational Focus ....................................................................................................... 14
IV Governance ................................................................................................................ 16
     Private NonProfit Corporation .................................................................................... 16
     Tax Exempt Status 501 (c)3 ......................................................................................... 16
     Organizational Structure of Private NonProfit ........................................................... 17
     Proposed Educational Management Organization ....................................................... 30
     Admission Policy ......................................................................................................... 31
V  Education Plan ............................................................................................................. 34
     Instructional Program .................................................................................................. 34
     Special Education ........................................................................................................ 44
     Student Conduct and Discipline .................................................................................. 45
     Timelines (Startup) ....................................................................................................... 47
VI Business Plan ............................................................................................................... 48
     Projected Staff ............................................................................................................... 48
     Qualifications Required for Individual Positions ......................................................... 52
     Enrollment .................................................................................................................... 53
     Budget: Revenue Projections ....................................................................................... 55
     Working Capital and/or Assets ..................................................................................... 61
     Marketing Plan .............................................................................................................. 61
     School Audits ................................................................................................................ 62
     Health and Safety Requirements ................................................................................... 63
     Civil Liability and Insurance ......................................................................................... 64
     Transportation .............................................................................................................. 64
     Facility ............................................................................................................................ 65
VII LEA Impact Statement ................................................................................................. 67
VIII Appendices ................................................................................................................ 68
     Appendix A: Men & Women United for Youth and Families, CDC Program Booklet
     Appendix B: STEM Article
     Appendix C: Director & Teacher Resumes
     Appendix D: School Inspection
     Appendix E: Fire Inspection
     Appendix F: New Site Building Plan
IX  Signature Page ............................................................................................................ 69
III. MISSION, PURPOSES and EDUCATIONAL FOCUS (G.S.115C-238.29A)

MISSION:
The mission of the proposed charter school is as follows:

The mission of Tri-County Academy of STEM is to create learners to engage in globalize instruction in order to broaden their understanding and develop their critical thinking skills to become STEM ready for our future global society.

Tri-County Academy of STEM expects to achieve this standard of learning through a cross study approach of Science, Technology, English, and Math (STEM) education. Tri-County Academy of STEM education is an integrated, inter-disciplinary approach to explore connections among these fields of study. The Tri-County STEM curriculum has the following fundamental attributes as a platform for learning:

- Project based driven for hands on experience and cross disciplinary learning
- Aligned with the NCDPI Standard Course of Study
- Student Centered
- Cultural and gender relative
- Real life experiences into the classroom to promote STEM interest and learning
- Cooperative learning classrooms
- 21st Century pedagogy, including virtual learning opportunities

To facilitate the mission, Tri-County Academy of STEM will implement these strategies to achieve success:

- Extended school day and year with free afterschool and summer
- Mental health component within the school to provide therapeutic and behavior early interventions support, including self regulation skills
- Teacher support services during class instruction, PBIS, and learning assistance
- Qualified Leaders, management and teachers born from the community (culturally astute and relative)
- Attract STEM teachers
- Individualized learning plan
- System of Care coordination for student and family
- No homework for parents - all learning and reinforcement is done in the school
- Transportation provided within 30 miles of the school if needed
- Individualized learning plan
- Rubric grading
- Teacher and student accountability programs
- Clubs to expose and stimulate interests

Tri-County Academy of STEM’s core value is No Child Will Be Left Behind, everyone will have an opportunity to learn, every child will learn and experience through STEM.
EVIDENCE FOR NEED OF THE PROPOSED SCHOOL WITH THE SELECTED MISSION:

Why STEM?

- To raise the standard of teaching in the early grade levels
- To connect students to the career pathways of their learning
- To become responsible for our local, national and global economy
- To close the gap of student achievement
- To focus on girls, students of color, and rural America who have long been underrepresented in STEM fields
- To prepare students to evolve with the North Carolina initiative for STEM economy
- To raise up a generation of critical thinkers, innovative leaders with new discoveries
- To become future ready for jobs of a changing economy

Facts from Change the Equation website: http://www.changetheequation.org

69%: Share of U.S. students who graduated from high school with a regular diploma in four years (2006)

47%: The share of black males who graduated from high school with a regular diploma in four years (2008)

43%: Share of 2010 U.S. high school graduates who are ready for college-level math

29%: Share of 2010 U.S. high school students who are ready for college-level science

25th out of 30: The U.S. ranking in an international assessment of high schoolers’ performance in math

3 million: The projected shortage of workers with U.S. college degrees, associates or better, by 2018

North Carolina’s Vital Signs

The future of North Carolina depends on its ability to boost student performance in science, technology, engineering and mathematics (STEM). Young people in North Carolina will increasingly face stiff competition for jobs from people across the world, and to succeed in the global economy, students will need a much stronger foundation in STEM subject areas.

- The North Carolina state test rates 80 percent of the state’s 8th graders as proficient in math. That’s far more than the 36 percent of North Carolina 8th graders who score proficient on the National Assessment of Educational Progress (NAEP), which sets a consistent bar for student performance across the states and tracks international assessments.

- Like all U.S. states, North Carolina has large achievement gaps between students of color and white students. Closing those gaps is both a moral and an economic imperative. The state should continually ensure that its policies target the diverse learning needs of all students, especially those who face the biggest hurdles, without diluting expectations.

- Just over half of 8th graders in North Carolina have a teacher with a major or minor in math.
North Carolina Report Cards for local Counties for 2009-2010:

Columbus, Bladen, Brunswick, & Pender schools – none of the schools made AYP in 2009-2010

Vision

North Carolina aims to be an industry leader in the STEM economy and workforce development requirements including energy, health and life sciences, aerospace, biotechnology and agriscience.

STEM is the future!

STEM education is an economic imperative. Experts say that technological innovation accounted for almost half of U.S. economic growth over the past 50 years, and almost all of the 30 fastest-growing occupations in the next decade will require at least some background in STEM – according to CEOs of Time Warner, Sally Ride Science, Intel, Xerox, Eastman Kodak, Accenture, and ExxonMobil.
PURPOSES OF PROPOSED CHARTER SCHOOL:

State the relationship between the six legislated purposes, as specifically addressed in the NC charter school statute GS 115C-238.29A, and the proposed school’s operations.

(1) Improve student learning;

Tri-County Academy of STEM charter school will teach STEM curriculum with the *5E Teaching, Learning, and Assessing Cycle* model to improve student learning. The *5E Teaching, Learning, and Assessing Cycle* model effectively and easily integrates STEM curriculum by meeting students where they are academically. The *5E Teaching, Learning, and Assessing Cycle* model is a constructivism learning model which allows students to process new knowledge by connecting it with what they already know. Additionally, the *5E Teaching, Learning, and Assessing Cycle* model focuses on clearly defined learning outcomes and on each student mastering new knowledge at his or her own pace before moving to new material.

The *5E Teaching, Learning, and Assessing Cycle* model of Engagement, Exploration, Explanation, Elaboration, and Evaluation has been advocated by many curriculum designers and educational researchers as an effective planning and teaching paradigm that leads to improved student performance. Since its introduction in the 1980s, the 5E cycle has been extensively researched, with the results showing enhanced mastery of subject matter, increased ability in developing scientific reasoning, and positive increases in cultivating interest and attitudes about science and other subject domains of learning.

| Engagement | Object, event or question used to engage students. |
|            | Connections facilitated between what students know and can do. |
| Exploration | Objects and phenomena are explored. |
|            | Hands-on activities, with guidance. |
| Explanation | Students explain their understanding of concepts and processes. |
|            | New concepts and skills are introduced as conceptual clarity and cohesion are sought. |
| Elaboration | Activities allow students to apply concepts in contexts, and build on or extend understanding and skill. |
| Evaluation | Students assess their knowledge, skills and abilities. Activities permit evaluation of student development and lesson effectiveness. |
(2) Increase learning opportunities for all students, with special emphasis on expanded learning experiences for students who are identified as at risk of academic failure or academically gifted;

Tri-County Academy of STEM will foster learning opportunities for both the “at risk” learner and the Academically Gifted.

➢ Early identification through on-going formative, benchmark, and summative assessments and teacher input from classroom observations.

➢ Establish an Pupil Education Plans for all individual students following the Response to Intervention Process to achieve individual goals

➢ The advantage of STEM curriculum in the K-12 educational system provides opportunities for all level learners to master skills and content important for 21st Century learning. Using a variety of activity-based learning models, students are provided opportunities to accelerate to rigorous depths of learning. Learning is facilitated so that students are encouraged to delve deeper into topics that interest them individually. Developing students’ reasoning skills, critical thinking skills, creativity, and innovation through integrated and connected STEM curriculum and pedagogical practices provides equity among learners from diverse backgrounds. STEM curriculum has the potential to provide true mastery for all learners

(3) Encourage the use of different and innovative teaching methods;

The advantage of cooperative learning classrooms using the 5E Teaching, Learning, and Assessing Cycle model with the STEM curriculum is that it is flexible and allows for teachers to incorporate innovative teaching methods. Teachers will have numerous opportunities to present or demonstrate new knowledge in many forms whether that be hands on or through the many forms of media.

(4) Create new professional opportunities for teachers, including the opportunities to be responsible for the learning program at the school site;

Traditional teaching methods will not support STEM instruction. At minimum integrated disciplines will require ongoing collaborative and effective communications to ensure curriculum is aligned with the North Carolina Common Core Standards and North Carolina Essential Standards in each discipline. Tri-County Academy will provide a bi-monthly standard meeting for professional development to share resources, exchange information, lesson plans and subject matter to support multi-dimensional learning.

Additional professional development opportunities will be provided in the following areas but not limited to:

➢ Multicultural learning environment
➢ Diverse learners
➢ Classroom management and guiding positive behavior interventions
➢ English Language Learners
➢ Child and adolescent development
➢ Various technology tools
➢ Effective Rubric grading
STEM curriculum workshops

21st Century Learning workshops and training

System of Care Collaborations with Community supports

Formative Assessments

Implementing the Common Core and NC Essential Standards

(5) Provide parents and students with expanded choices in the types of educational opportunities that are available within the public school system; and

Free afterschool programs including tutoring, clubs, enrichment programs, sports

System of Care Collaborations with community based supports for natural links

Therapeutic interventions to meet emotional and/or behavioral needs

Mentor program

Individualized, student centered learning, variety of choice of learning

Digital education for a digital generation

Project based learning

Learning assignments to increase motivation

Rubric Assessment and grading

Opportunity to experience knowledge learned

Preparing students for STEM readiness for higher education

(6) Hold the schools established under this Part accountable for meeting measurable student achievement results, and provide the schools with a method to change from rule-based to performance-based accountability systems. (1995 (Reg. Sess., 1996), c. 731, s. 2.)

Tri-County academy of STEM will abide in accountability through North Carolina State Board of Education Policies and other legislative requirements for the North Carolina Testing Program.

Kindergarten – 2 Policy GCS-C-016

On-going individualized assessments throughout the year and a summative evaluation at the end of the year. These assessments monitor achievement of benchmarks in the North Carolina Standard Course of Study. The intended purposes of the assessments are (1) to provide information about the progress of each student for instructional adaptations and early interventions, (2) to provide next-year teachers with information about the status of each of their incoming students, (3) to inform parents about the status of their children relative to grade-level standards at the end of the year, and (4) to provide the school and school district information about the achievement status and progress of groups of students.

Grades 3-8 - Policy GCS-C-018

End of Grades (EOGs) for Reading, Math and Science for grades 5-8 –

(Students identified as limited English Proficient will be administered WIDA ACCESS Placement Test (W-APT). Students with special needs will be administered NCEXTEND1 or NCEXTEND2. Iowa Test of Basic Skills may be administered to grades 5 & 8.)
Grade 10 – Policy GCS-C-018

NC General Writing Assessments

As the higher grades are established with Tri-County Academy of STEM, Tri-County Academy of STEM will follow the North Carolina Accountability and Curriculum Reform Effort (ACRE) for EOCs of English I, Algebra I, Algebra II, Biology, Physical Science, Civics & Economics, and U.S. History.

High school students will meet graduation requirements identified by NC Department of Public Instruction including required credits – 22 credits of Future Ready Core.

As a charter school, a school of choice, Tri-County Academy of STEM will additionally be held accountable to parents and students. Annual surveys will be given to both parents and students to determine school satisfaction. Results of the surveys will be reported to the school board. Feedback from surveys will be evaluated toward school improvement plans.
EDUCATIONAL FOCUS:
Describe briefly, limited to one page, the focus of the proposed charter school. This description will be used in public releases of information to interested parties, such as: the media, the State Board of Education, parents, school systems, and in various documents produced by the Office of Charter Schools. It must be concise and relate directly to the mission of the school.

"This page left blank intentionally – One page Educational Focus is on the next page"
Men and Women United for Youth and Families, CDC of Delco, NC is currently developing and working toward starting a new charter school for the communities it serves of Columbus, Bladen, Brunswick, Pender and New Hanover counties. Tri-County Academy of STEM is a school of choice with the intent to deliver project based learning with a focus on Science, Technology, Engineering, and Math (STEM).

The mission of Tri-County Academy of STEM is to create learners to engage in globalize instruction in order to broaden their understanding and develop their critical thinking skills to become STEM ready for our future global society.

The Tri-County Academy of STEM curriculum has the following fundamental attributes as a platform for learning:

- Project based driven for hands on experience and cross disciplinary learning
- Aligned with the NCDPI Standard Course of Study
- Student Centered
- Cultural and gender relative
- Real life experiences into the classroom to promote STEM interest and learning
- Cooperative and Collaborative learning classrooms
- 21st Century pedagogy and learning centers

Tri-County Academy plans to open in the fall of 2012 beginning with grades K-3 with grades 4 through 6 opening in the fall of 2013. Open enrollment will begin, February 2012. Tri-County Academy of STEM is a K-12 school.

The core value of Tri-County Academy of STEM is NO CHILD WILL BE LEFT BEHIND in learning. Tri-County academy will meet a child where they are academically, emotionally and socially to build success. Tri-County Academy will offer parents and their students support for positive learning outcomes such as:

- Free afterschool programs including tutoring, clubs, enrichment programs, sports
- System of Care Collaborations with community based supports for natural links
- Therapeutic interventions to meet emotional and/or behavioral needs
- Mentor program
- Individualized, student centered learning, variety of choice of learning
- Digital education for a digital generation
- Project based learning
- Learning assignments to increase motivation
- Rubric Assessment and grading
- Opportunity to experience knowledge learned
- Preparing students for STEM readiness for higher education

North Carolina aims to be an industry leader in the STEM economy and workforce development requirements including energy, health and life sciences, aerospace, biotechnology and agriscience. It is imperative students are not denied the opportunity of a STEM education so that they may be equipped to become future leaders in the economy!

**Tri - County Academy is the STEM of Global Society**
IV. GOVERNANCE

NOTE: Please answer all sections completely. Do not use "same as LEA" or "whatever the law states". Lack of proper documentation will jeopardize the application review.

A. PRIVATE NONPROFIT CORPORATION (G.S.115C-238.29E)
   The nonprofit corporation must be officially authorized by the NC Secretary of State by the final approval interview date.

Name of Private Nonprofit: Men and Women United for Youth and Families, CDC
Mailing Address: 44 Dream Avenue (formerly 2957 Old Stage Road)
City/State/Zip: Delco, North Carolina 28436
Street Address: 44 Dream Avenue (formerly 2957 Old Stage Road)
Email: tricountyacademy@gmail.com
Phone: 910.655.0698
Fax: 910.655.0611

Name of registered agent and address: Devoria K. Berry,
44 Dream Avenue, Delco, North Carolina 28436

FEDERAL TAX ID: 16-1770367

B. TAX-EXEMPT STATUS (501 (c)(3)) (G.S.115C-238.29B(b)(3))
   The private nonprofit listed as the responsible organization for the proposed charter school has 501 (c)(3) status:

☐ Yes (copy of letter from federal government attached)
☐ No

Note:
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. (G.S.115C-238.29E(b))
Dear Applicant:

We are pleased to inform you that upon review of your application for tax exempt status we have determined that you are exempt from Federal income tax under section 501(c)(3) of the Internal Revenue Code. Contributions to you are deductible under section 170 of the Code. You are also qualified to receive tax deductible bequests, devises, transfers or gifts under section 2055, 2106 or 2522 of the Code. Because this letter could help resolve any questions regarding your exempt status, you should keep it in your permanent records.

Organizations exempt under section 501(c)(3) of the Code are further classified as either public charities or private foundations. During your advance ruling period, you will be treated as a public charity. Your advance ruling period begins with the effective date of your exemption and ends with advance ruling ending date shown in the heading of the letter.

Shortly before the end of your advance ruling period, we will send you Form 8734, Support Schedule for Advance Ruling Period. You will have 90 days after the end of your advance ruling period to return the completed form. We will then notify you, in writing, about your public charity status.

Please see enclosed Publication 4221-PC, Compliance Guide for 501(c)(3) Public Charities, for some helpful information about your responsibilities as an exempt organization.
MEN AND WOMEN UNITED FOR YOUTH AND

Enclosures: Publication 4221-PC
Statute Extension

Sincerely,

Robert Choi
Director, Exempt Organizations
Rulings and Agreements

Letter 1045 (DC/CG)
C. **ORGANIZATIONAL STRUCTURE OF PRIVATE NONPROFIT:** (GS 115C-238.29B(b)(3); GS 115C-238.29E(d))

The private nonprofit corporation 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.

Please provide the following in this location of the APPLICATION: (Do not include as an appendices.)

1. A well-defined organizational chart showing the relationship of the Board of Directors to the administrative 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 the charter school.

Tri-County Academy of STEM will be a public charter school founded and operated by the Governing School Board of Men and Women United of Youth and Families, CDC, a non-profit 501(c)3 community development corporation (CDC).

School operations of Tri-County Academy of STEM will be managed by the Director of Schools under the guidance of Tri-County Academy of STEM Governing School Board to ensure the school is governed in accordance to federal, state, and county laws and regulations, as it relates to public agencies and charter schools. The Tri-County Academy of STEM Governing School Board will assume full responsibility to fulfill the requirements of the charter school application and contract. School year 2013, Tri-County Academy of STEM Governing School Board will seek to hire a K-5 grades Assistant Director. School year 2014, Tri-County Academy of STEM Governing School Board will seek to hire the 6-8 grades Assistant Director. The Director and/or Principals will coordinate with Tri-County Academy of STEM faculty, staff, students, parents, volunteers, organizations, and natural supports.

---

**Diagram:**

```
  +---+     +---+     +---+
  | Tri-County Academy of STEM Charter School |
  +---+     +---+     +---+
  | Governing School Board |     |
  +-------------------+     +---+
       |                     |     +---+
       +-------------------+     |     +---+
           |                     |     |Faculty & Staff|
           +-------------------+     +---+
                             |                     |     +---+
                             +-------------------+     |Students & Parents|
                                                             +---+
                                                                         +---+
                                                                                     |Volunteers, Organizations & Supports|
```

---
2. A one-page resume for each member of the board of directors highlighting his or her experiences over the past ten or more years.

Tri-County Academy of STEM Governing School Board:

<table>
<thead>
<tr>
<th>Governing School Board</th>
<th>Name</th>
<th>Background / Experience</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chair</td>
<td>Maria Greene</td>
<td>School Principal</td>
</tr>
<tr>
<td>Vice – Chair</td>
<td>Devoria Berry</td>
<td>CEO / Entrepreneur</td>
</tr>
<tr>
<td>Treasurer</td>
<td>Andrea Simmons</td>
<td>Business/ Financial Manager</td>
</tr>
<tr>
<td>Secretary</td>
<td>Sheri Bordeaux</td>
<td>Administration / Non Profit / Medical Records</td>
</tr>
<tr>
<td>Member</td>
<td>Earnestine Keaton</td>
<td>Historian/GED Instructor – Southeastern Community College</td>
</tr>
<tr>
<td>Member</td>
<td>Perry Dixon</td>
<td>Municipality/Politician/Community</td>
</tr>
<tr>
<td>Member</td>
<td>Althea LeSane</td>
<td>Department of Juvenile Justice</td>
</tr>
<tr>
<td>Member (non-voting)</td>
<td>Randolph Keaton</td>
<td>NonProfit / Housing authority</td>
</tr>
</tbody>
</table>
Maria Greene  
918 Evergreen Church Road  
Delco, NC 28436  
910-655-2010 (home)  
910-620-3130 (cell)

Education  
University of North Carolina at Wilmington  
Master of School Administration, May 2004

University of North Carolina at Wilmington  
Master of Education in Curriculum and Instruction, May 2002

North Carolina at Central University Durham, NC  
Bachelor of Arts in Education, K-6, December 1993

License  
Principal (Grades K-12), Curriculum Instructional Specialist, and Elementary Education (Grades K-6)

Experience  
PRINCIPAL  
College Park Elementary School, Wilmington, NC, Aug. 08-present  
Gregory Elementary School, Wilmington, NC, Oct. 06-08

ASSISTANT PRINCIPAL  
Pine Valley Elementary School, Wilmington, NC, Aug. 03 – 06  
Heyward C. Bellamy Elementary School, Wilmington, NC, Aug. 02-03

TEACHER  
Eaton Elementary School, Wilmington, NC, Aug. 99-02  
Snipes Elementary School, Wilmington, NC, Aug. 98-99  
Pearsonstown Elementary School, Durham, NC, Aug. 96-98  
Carolina Beach Elementary School, Wilmington, NC, Aug. 94-96

Computer Skills  
Proficiency with WordPerfect, MS Word, Excel, Access, and PowerPoint
PROFESSIONAL EXPERIENCE

Community Support Agency (February 2007-present)
   Delco, North Carolina
   Chief Executive Officer

Assisted Care, Inc. (September 2005- February 2007)
   Wilmington, North Carolina
   Community Support Specialist III

Southeastern Center for Mental Health, Crisis Station (July 2005-2007)
   Wilmington, North Carolina
   On Call Counselor

Southeastern Center for Mental Health, (1992-2005)
   Wilmington, North Carolina
   Human Services Clinical Counselor I, Special Youth Services

Lutheran Family Services, (1990-1992)
   Wilmington, North Carolina
   Program Director

ACCOMPLISHMENTS / ACKNOWLEDGEMENTS

Chief Executive Officer / owner of a North Carolina state certified
Critical Access Behavioral Health Agency – January 2011

YWCA Cape Fear Women of Achievement Award in Business in recognition for
outstanding contributions and achievements of women active in Brunswick,
Columbus, New Hanover and Pender counties - 2008

National Association of Social Workers

Licensed Clinical Addiction Specialists (LCAS) - Provisional

Founder of Men and Women United for Youth and Families, CDC - 1998

EDUCATION

Fayetteville State University, Fayetteville, North Carolina

University of NC at Pembroke Pembroke, North Carolina
   Bachelor of Social Work (2005)

Johnson C. Smith University, Charlotte, North Carolina
   Bachelor of Arts in Urban Affairs (1990)
AREAS OF EXPERTISE

- Financial and Strategic Planning
- Auditing and Compliance
- Operating and Working Capital
- Budget Development and Management
- Cash Flow Management

PROFESSIONAL EXPERIENCE

Community Support Agency (February 2008–present)
Delco, North Carolina
Finance Manager

Since 2008 working as the company Finance Manager responsible for managing financial documents and reports, payroll, petty cash, disbursement and outflow, and vendor relations

Assisted with the implementation of an electronic billing and records system to meet state Medicaid billing requirements while maintaining company financial database

Responsible for company financial projections as it pertains to the overall company infrastructure and strategic plan

Boseman’s Sporting Goods (September 2002–February 2008)
Wilmington, North Carolina
Regional Sales Representative

Boseman’s Sporting Goods (1999–2002)
Wilmington, North Carolina
Warehouse Manager

Wilmington, North Carolina
Store Manager

EDUCATION

Winston-Salem University, Winston-Salem, North Carolina
B.S. Sports Management (1992)

Cape Fear Community College, Wilmington, North Carolina
Accounting Certification (2011)
Sheri Bordeaux
4966 Water Tank Road
Delco, NC 28436
910-231-3074

OBJECTIVE
To secure employment to utilize the skills that I have acquired through experience that has been attained during many years of volunteer work as well as employment.

EXPERIENCE
10/08 – Present: Community Support Agency
Present duties: MEDICAL RECORDS MANAGER
Maintaining of all medical records to comply with state codes for records retention and HIPPA policies and procedures. Assisting with billing and coding by entering data pertaining to personal data, treatment plans, authorizations, service codes and services provided.
Previous duties: OFFICE MANAGER
Overseeing of daily office operations such as: answering multi-line phone system, copying, faxing, e-mailing, maintaining of appointment schedule to include transportation and services, verification of insurance
Previous duties: SHARE Network Coordinator
Overseeing of JobLink Access Point. Assisting clients with resume writing, job searches, obtaining basic job skills, linking clients to local resources, and coordinating transportation.

VOLUNTEER HISTORY
Church – Served many years as Vacation Bible School Director, Pianist, Children’s Choir Director, Christmas Program Director, Easter Program Director and Hospitality Committee Director

Community – Helped to begin a Dixie Youth Softball Program in Eastern Columbus County. Served as Secretary/Treasurer for Dixie Softball. Served as interim Dixie Softball Director for Riegelwood branch. Coordinated and oversaw all operations of concession stand operation for Dixie Softball to include inventory control, purchasing, opening and closing for each game and maintaining accurate records and reports.

School – Began volunteering in the Columbus County School System in August of 1983 and am presently still volunteering. Was the class mother for all three of my children’s classes for many years which included planning and preparing parties, field trips, arts/crafts and activities. Served as office assistant for Acme Delco Middle School in a volunteer capacity. Served as a member of the Columbus County Schools Advisory Board for many years.

Family – Was a stay-at-home mother for 20 years.
Summary of Qualifications

A high profile community leader as exemplified by two terms as a town Mayor and 8 years as a member of the town council as well as former and active service on several community boards and religious institutions. An affinity for mechanics has culminated into a career as an auto mechanic and ownership of Dixon Classic Cars.

Experience

2004 - 2008

Town of Sandyfield, Sandyfield, NC
Mayor

Provided important leadership in securing the funding of a water system, a new town hall and a fire station.

1990 - 2000

International Longshoreman, Sunny Point, NC
Journeyman

Various duties related to the loading and unloading of cargo ships.

1994 - 1995

Town of Sandyfield, Sandyfield, NC
Mayor

Representing the town and its citizen as the official head of the governing board. Seeking the ways and means to improve the quality of life for the citizens by actively networking with the civic, political and business community.

Education

Cape Fear Council of Government, Wilmington, NC
Certificate Program Municipal Government

Course of study designed to provide leadership training for mayors and other members of municipal governments.

Southeastern Community College, Whiteville, NC
Certificate Program Leadership Training

A course of study designed to sharpen the skills of those in positions of leadership.

General Motors, Red Bank, NJ
Certificate Program Auto Mechanics

A course of study and training that led to a certification as a professional mechanic.
Earnestine Keaton

9703 Browntown Road
Riegelwood, NC 28456
ektn10@aol.com
910 685-6735

OBJECTIVE:

To obtain a position with an educational institution that would utilize my experience as a GED Instructor, a tutor and mentor for an adult literacy program, and a career employee of Verizon telecommunications Company.

MAJOR ACCOMPLISHMENTS:

My years of experience as a network design engineering specialist was excellent life-skills training and affirmation of the importance of a good education, work ethic, social skills and proper dress. In addition - a Bachelor of Social Science degree and my work as a historian and free-lance writer for several local newspaper has provided the education, knowledge and experience that is valued in traditional and non-traditional classroom instructions.

EXPERIENCE:

10/2011 to present
Southeastern Community College/GED Instructor
Whiteville, NC

My duties are in the area of instruction, tutoring, counseling, registration, attendance, placement testing and state-required documentation.

Bladen Community College/ GED Instructor
East Arcadia Campus

My duties were in the area of instruction, tutoring, counseling, registration, attendance roster, locator and survey testing, Leis and practice GED testing and state required documentation.

5/2009 to 8/2009
Bladen Community College/Genealogy Instructor
East Arcadia Campus

The course was initiated and designed for the East Arcadia Senior Center as an interactive- learning experience that explored and documented the history of the East Arcadia Community. The goal was to compile the historical research resulting in a Power Point Presentation.

Verizon/Network Design Engineer Specialist
New York, New York

My duties were all levels of staff support for four network design and construction engineers- included but not limited to- building and maintaining computerized telecommunications systems. I was responsible for compiling reports, attending project meetings, and interacting with other department to provide voice and data services to the Wall Street business community.

Education:

1981
Long Island University
B/S Social Science/ Political

2010
Southeastern Community College
Certificate/Differential Instructions- an on-line course designed to teach instructors how to improve the educational skills of a diverse class-group

Brooklyn, New York

Whiteville, NC
Althea D. Lesane
24891 NC Hwy 87 East
Riegelwood, North Carolina 28456
(910) 655-9559 (home)
(910) 922-9155 (mobile)
lesane5902@bellsouth.net

EDUCATION

Graduated from Fayetteville State University, Fayetteville, North Carolina with Bachelor of Science in Criminal Justice 2006.

ASSOCIATIONS AND LEADERSHIP

Cape Fear Valley/Bladen County Healthcare LLC Advisory Board Chair 2009
Board of Directors Men and Women United for Youth and Families 2009.
Bladen County Hospital Trustee Board 2001-2008
Bladen County Democrat Party Chair 2000-2004
Carvers Creek Precinct Chair 2005-2009
Member of New Zion Missionary Baptist Church, Riegelwood, NC
Church Clerk, Missionary Board, Usher Board.

EMPLOYMENT

Assistant Clerk of Superior Court Bladen County, Elizabethtown, NC, Civil Division Supervisor 2006-present
Deputy Clerk of Superior Court 1992-2006
Work experience in cashiering, bookkeeping, estates, civil court. Juvenile Court clerk 1995 to present. Civil Superior Court Clerk 2006-present.
Randolph Keaton  
905 Browntown Road, Riegelwood, North Carolina 28456  
Residence: 910-655-0464, Business: 910-655-0698  
Randolphkeaton@1csa.net

Education:  
Masters’ of Arts, Human Resource Development  
Webster University, St. Louis, MO – 1988

Bachelor of Arts, Political Science  
North Carolina A&T State University, 1984  
Greensboro, NC

Work Experience:

7/08-Present  
Men and Women United for Youth and Families, CDC  
Delco, North Carolina 28436

Position: Executive Director

5/07-Present  
Community Support Agency  
Delco, North Carolina 28436

Position: Qualified Mental Health Professional

5/02-3/08  
Wilmington Housing Authority  
Wilmington, North Carolina 28401

Position: Chief of Community and Supportive Services

5/99-5/02  
Wilmington Housing Authority  
Wilmington, North Carolina, 28401

Position: Case Manager

5/95-5/99  
Columbus County Mental Health Center  
Whiteville, North Carolina 28472

Position: Social Worker II, Crisis Case Manager

5/89-5/95  
New Hanover County Department of Social Services  
Wilmington, North Carolina 28401

Position: Social Worker II, Foster Care Worker

6/85-3/89  
United States Air Force  
Pope Air Force Base, North Carolina
3. 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. (G.S.143.318.9 et seq)

PROPOSED BYLAWS
Men and Women United for Youth and Families, CDC
(DBA Tri-County Academy of STEM Charter School)
BYLAWS

ARTICLE I: NAME
Section 1: Name
The name of the nonprofit corporation is Men and Women United for Youth and Families, CDC
(sometimes referred herein as “The Corporation”).

Section 2: Principal Office and Registered Agent
The principal office of the Corporation is located in the City of Delco, in Columbus County, in the State of North Carolina. The street address of the initial registered office of the Corporation is 44 Dream Avenue, Delco, North Carolina 28436 (formerly 2957 Old Stage Road, Delco NC 28436) and the registered agent at such address is Devoria K. Berry.

ARTICLE II: PURPOSE
Section 1: Purpose
The purpose of the Corporation is to, establish, and govern a charter school under North Carolina Charter School Statutes and to pursue related educational endeavors. The name of the charter school is Tri-County Academy of STEM or also known as “Tri-AC”.

Tri-County Academy of STEM is an equal opportunity employer, and in the selection of members and officers of the Corporation, in providing service to the public, as in all other aspects of its functioning, there shall be no discrimination concerning race, sex, religion, national or ethnic origin (or socioeconomic status).

ARTICLE III: MEMBERSHIP
Section 1: Powers
The activities, affairs and business of the Corporation shall be conducted by or under the direction of the Governing School Board (referred to herein as the “Board”).

Section 2: Mission
The mission of the Governing School Board is to make policy decisions regarding the operation of the Tri-County Academy of STEM charter school and to provide it with oversight rather than day-to-day management of operations.

Section 3: Number, Qualifications, Election and Tenure
The number of persons constituting the Governing Board who have voting authority shall be seven (7). A person needs to be at least twenty-one (21) years old and in good standing to be qualified as a Member;
Election procedures to the Governing School Board are outlined as follows:
Nominations may be made by any Board member;
Self nominations are also acceptable;
Vote to be taken publicly by show of hands;
A nominee is declared a Member as long as he/she receives the votes of the majority of the Board members;
Board Members shall serve for a term of two years, or until their successors are elected;
A Member may be removed by a majority vote of the Board at any Board meeting.
In order to be re-elected, a Member can be nominated by a Board member similar to any other nominee.
Additionally, the Board’s specific policy and direction goals are:
To interpret the education needs and aspirations of the community through the formulation of policies which stimulate the learner and the learning process;
To govern the school in accordance with federal laws;
To provide leadership in order to carry out the goals and objectives of the school effectively;
To facilitate communication with the community served by the school;
To develop and provide the data appropriate for the management functions of planning, evaluating, organizing, controlling and executing.
The Board should attempt to reflect the opinion of the community. However, Board members must look to the future more clearly than is required of the average citizen. The results of many of the decisions and actions of the Board may not be realized at once, but will set the course of education for future years. The Board should fearlessly support those educational philosophies and procedures needed to promote proper education for this community based upon the needs of the pupil population.
In addition, Board Members shall meet at such times and places as required by these by-laws.
The Board may consider a Member with three consecutive un-excused absences from regular meetings as having resigned. Board Members shall register their home/business, home/office/cellular phone numbers and e-mail addresses with the secretary of the School.

Section 4: Meeting Procedures
All meetings of the Board shall be open to the public, including the news media, except when permitted or required by law to be closed. Visual and sound recordings shall be permitted during open meetings. The Chairperson of the Board shall preside at Board meetings and shall rule on questions of order. In the absence of the Chairperson, the Vice Chairperson shall preside. In the absence of both the Chairperson and Vice Chairperson, the attending members shall elect one of their numbers to preside. Meetings of the Board shall be formal enough to allow for the orderly conduct of business but informal enough to encourage free discussion among Board members and to promote group thinking and action.

Section 5: Meeting Schedule
The Board annually shall adopt a schedule for the upcoming year stating the date, time and place of its regular meetings. The meeting schedule shall be posted in a prominent place at the School’s administration building and at any other locations where such scheduled meetings will be held. Electronic and other means of informing the public about the Board meetings shall be used where feasible. Any scheduled meeting may be cancelled, postponed or adjourned.

Section 6: Regular Meetings
Unless otherwise specified in the schedule or changed in a manner allowed by law, the Board’s regular meetings shall be held regularly on the dates that will be publicized by the Board. The schedule shall call for the meetings to be held at the School’s administration building. The board’s regular meetings are legislative in nature. This is where most of the Board’s formal actions are taken.

Section 7: Special or Called Meetings
In accordance with the state law, special meetings may be called by the Board Chair on the request of three or more Board Members, or the Director in accordance with state law. Due notice of such meetings shall be given to the public and shall include at a minimum the posting of a written notice for at least 24 hours at the place of regular meetings.

Section 8: Quorum
A majority (>50%) of the Board members having voting authority and currently in office shall constitute a quorum for the transaction of business. If a quorum is not present at the time and place of any meeting, the Board Members present shall adjourn the meeting until a quorum shall be present.

Section 9: Voting
Except as otherwise expressly provided by statute, or by the Charter of the Corporation, or by these by-laws, the action of a majority of the Board Members present at a meeting in which there is a quorum shall be the action of the Governing Board. The President shall vote at Board meetings only when his or her vote is necessary to resolve what would otherwise cause a tie vote.

Section 10: Resignation of Board Members
A Member may resign at any time by giving notice in writing to the President or Secretary of the Corporation. Such resignation shall take effect at the time specified, at the time the President or Secretary receives such resignation.

Section 11: Compensation
Board Members shall serve without compensation for their services to the Board except travel and related expenses as may be authorized by the Board for in-state or national conferences.
Section 12: Conflict of Interest
A copy of the Conflict of Interest policy shall be given to all Board members, staff members, volunteers or other key stakeholders upon commencement of such person’s relationship with or at the official adoption of state policy. Each board member officer, staff member and volunteer shall sign and date the policy at the beginning of his or her term of service or employment and each year thereafter. Failure to sign does not nullify the policy.

The purpose of the Conflict of Interest policy to prevent the personal interest of staff members, board member, and volunteers from interfering with the performance of their duties to, or result in personal financial, professional or political gain on the part of such persons at the expense of or its Members, supporters, and other stakeholders.

Section 13: Certain Member Liability
A member of the Board shall be subject to the liabilities imposed by law upon Board members of nonprofit corporations. In addition, all Board members who vote for or assent to any distribution of assets of the Corporation contrary to any restrictions imposed by the Nonprofit Corporation Act of North Carolina, the corporate articles of incorporation, charter, or by-laws, shall be jointly and severally liable to the Corporation for the amount of such distribution. Furthermore, such liabilities shall not exceed the debts, obligations and liabilities existing at the time of the vote or assent where the Board member relied on, and acted in good faith in the belief that, financial statements of the Corporation were correct and were based on generally accepted principles of sound accounting practice used by the president or the treasurer, or certified by an independent public accountant or firm of such accountants to fairly reflect the financial condition of the Corporation.

ARTICLE V: OFFICERS

Section 1: Designation of Officers
Officers of the Corporation shall be Chairperson, Vice Chairperson, Secretary and Treasurer. The Board may designate and fill other officers as needed. Any two offices except for the office of President may be held by one person. No officer shall sign or execute any document in more than one capacity.

Section 2: Election, Term of Office and Qualifications
At its regular annual meeting in September each year, the Board shall organize and elect officers among its own members. A President shall be elected to serve for a period of one year. A Vice Chairperson shall be elected to serve for a period of one year. The Secretary shall be elected to serve for a period of one year. The Treasurer shall be elected to serve for a period of one year. The Chair shall preside over the election of the vice chair, secretary, and treasurer unless decided otherwise by majority of the Board members.

Section 3: Subordinate Officers and Agents
The Board may appoint other officers or agents to chair committees or perform certain other duties. Each such officer or agent shall hold office for such period, have such authority, and perform such duties as the Board determines. The Board may delegate to any officer or agent the authority to appoint subordinate officers or agents and to prescribe their respective authorities or duties.

Section 4: Duties
Officers shall stand in a fiduciary relation to the Corporation and shall discharge the duties of their respective positions in good faith, and with that diligence and care which reasonably prudent men and women would exercise in similar circumstances and like positions.

Section 5: Removal
The persons who are officers pursuant to Section 1 of this Article may be removed by majority vote of the Board with or without cause. The persons who are officers or agents pursuant to Section 3 of this Article may be removed by majority vote of the Board.
Section 6: Resignations
All resignations must be submitted in writing to the Board with an effective date.

Section 7: Vacancies
A vacancy in any office because of death, resignation, removal or disqualification, or any other cause, shall be filled for the unexpired portion of the term of such office in the manner prescribed by these by-laws for regular appointments or elections to such offices. The Board may also reassign some or all of the duties of an absent officer as provided in Section 8 of this Article.

Section 8: Reassignment of Officer Duties
Should an office become vacant or should an officer of the Corporation be absent, or for any reason the Board deems sufficient, the Board may reassign the duties of such officer to any other officer or to any member of the Board.

Section 9: Director
The Board shall appoint the Director by entering into a contract with a person to serve in that capacity. The contract shall specify the period of time for which the person is employed as Director as well as his or her authority and duties. The Director shall generally be responsible for the business and affairs of the Corporation and shall be authorized to hire and have control over its employees. In addition to the management of day-to-day operations of the Corporation, the Director shall perform such other duties as are assigned by the Board.

Section 10: Chairperson
The Chairperson shall be the principal person charged with supervising, organizing and managing the business of the Board and shall have the responsibility for conducting Board meetings. The Chairperson shall perform such other duties as are assigned by the Board.

Section 11: Vice Chairperson
At the request of the Chairperson, or in the absence or disability of the Chairperson, the Vice Chairperson shall perform the duties of the Chairperson and when so acting shall have all the powers of, and be subject to all the restrictions upon, the Chairperson.

Section 12: Secretary
The Secretary shall keep the minutes of the meetings of the Board and shall see that all notices are given in accordance with the provisions of these by-laws or as required by law. The Secretary shall also be the custodian of the statements, books, records, reports, certificates, and other documents of the Corporation and the seal of the Corporation, and shall see that the seal is affixed to all documents requiring such seal. The Secretary shall perform all duties and possess all authority incidents to the office of the Secretary, and shall perform such other duties and have such other authority as may be assigned by the Board.

Section 13: Treasurer
The Treasurer is responsible to manage the funds, receipts, disbursements and securities of the Corporation. The treasurer shall perform such other duties and have such other authority as may be assigned or granted by the Board. The treasurer may be required to give a bond for the faithful performance of the duties of the office in such form and amount as the Board may determine.

**ARTICLE VI: GENERAL PROVISIONS**

Section 1: Corporate Seal
The corporate seal shall be in such form as shall be approved by the Board.

Section 2: Fiscal Year
The fiscal year of the Corporation will commence on July 1 of each year and conclude on June 30th of the next year.

Section 3: Amendments to Bylaws
These by-laws may be altered, amended, or repealed, or new by-laws adopted at any regular or special meeting upon a super (>50%) majority vote of the Board members.

Section 4: Books and Records
The Corporation shall keep correct and complete books and records of accounts and shall keep minutes of the proceedings of its Board.
Section 5: Gifts
The Board may accept on behalf of the Corporation any contribution, gift bequest, or devise granted for the benefit of the general educational or special educational purposes of the Corporation.

Section 6: Disposal of Assets
Upon the dissolution of the Corporation, the Governing Board shall, after paying or making provision for the payment of all of the liabilities of the corporation, dispose of all of the assets of the Corporation as directed pursuant to North Carolina General Statutes.

The undersigned persons certify the foregoing by-laws have been adopted for the Corporation, in accordance with the requirements of the North Carolina Nonprofit Corporation Act.
4. A copy of the articles of incorporation. While the statute does not require the applicant to have acquired corporate status in order to apply, that status must be acquired prior to receive a charter. Accordingly, if the applicant does not yet have corporate documents filed with the Secretary of State, it should demonstrate that it is prepared to do so in the near future.

Articles of Incorporation

To Be Provided for Tri-County Academy of STEM Charter School
5. A description of the governing board's functions, duties, roles and responsibilities as it relates to overseeing the charter school and its mission.

<table>
<thead>
<tr>
<th>Governing School Board</th>
<th>Name</th>
<th>Functions, Duties, Roles &amp; Responsibilities for Tri-County Academy of STEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chairperson</td>
<td>Maria Greene</td>
<td>School compliance officer as it relates federal, state and county laws and regulations / Policy Development / Marketing</td>
</tr>
<tr>
<td>Vice – Chairperson</td>
<td>Devoria Berry</td>
<td>Business Advisor / Management / Policy Development / Marketing</td>
</tr>
<tr>
<td>Treasurer</td>
<td>Andrea Simmons</td>
<td>Finance &amp; Budget Manager / Marketing</td>
</tr>
<tr>
<td>Secretary</td>
<td>Sheri Bordeaux</td>
<td>Administration / Marketing</td>
</tr>
<tr>
<td>Member</td>
<td>Earnestine Keaton</td>
<td>Community Advocate for the school / Policy Development</td>
</tr>
<tr>
<td>Member</td>
<td>Perry Dixon</td>
<td>Community Advocate for the school / Policy Development</td>
</tr>
<tr>
<td>Member</td>
<td>Althea LeSane</td>
<td>Community Advocate for the school / Policy Development</td>
</tr>
<tr>
<td>Member (non-voting)</td>
<td>Randolph Keaton</td>
<td>Public Relations / Community Organizer</td>
</tr>
</tbody>
</table>
6. Explain the decision-making processes the board will use to develop school policies.

The Board will use a six step approach to making decisions as follows:

a. Clearly define the problem or issue
b. Gather information to be considered
c. Consider recommendations and/or alternatives
d. Evaluate possible outcomes or effects
e. Check proposed decisions against values, goals, and mission of the school
f. Decide, determine, settle, conclude, and resolve by voting

Submit resolution for policy development
7. Describe the organization’s performance-based goals for the charter school. Organizational goals and measurable objectives should describe and measure the effectiveness and viability of the organization.

Tri-County Academy of STEM performance-based goals for 2012-2015

1. Awareness
   Objective: To make the community surrounding areas aware of a new charter school and its mission
   Method: Market through advertisement in local papers; create and distribute marketing material; develop online presence; provide low cost STEM Youth Camp and afterschool program; direct mailings of student interest invitations
   Measure: Number of inquiries; number of student interests; number of actual applications; number of job applications; number of website visits
   Evaluate: Use data to determine most effective method of marketing; Determine if additional methods are required

2. Effectiveness of learning
   Objective: Deliver learning objectives in a communicative and collaborative learning environment
   Method: through project-based learning, constructivism modality, integrated disciplines of study and 5E Learning cycle method
   Measure: Rubric grading system; End of Grades; number of advancements; percentage of retention
   Evaluate: Determine if students are mastering subject matter

3. Classroom management
   Objective: Maintain effective learning environment for all students
   Method: set expectations of behavior; learning objectives, and student performance
   Measure: log number of write up’s, classroom pullouts, level of participation, and classroom disruptions
   Evaluate: Determine if classroom management objectives are met

4. STEM Professional Development
   Objective: To provide STEM Professional Development to support Teachers for effective STEM readiness teaching
   Method: Workshops; online resources; STEM tools, knowledge database for resources
   Measure: Classroom evaluations; workshop/training evaluations; STEM focus lesson plans; Teacher surveys
   Evaluate: Determine if Teachers are STEM ready for STEM learning environment

5. Stakeholders
   Objective: To connect Tri-County Academy of STEM as an anchor of the community
   Method: STEM open house and showcase; parent involvement; support and funding; school development committee
   Measure: The number and who attends STEM open house and showcase; gather data of parent input and surveys; obtain additional financial support and community collateral for school mission; school development committee is represented by the faces of the community
   Evaluate: and reflect on each event of its outcomes, minutes, and other documentation
8. Describe how the governing board will ensure that current and future board members avoid conflicts of interest.

A copy of this policy shall be given to all Board members, staff members, volunteers or other key stakeholders upon commencement of such person's relationship with or at the official adoption of state policy. Each board member officer, staff member and volunteer shall sign and date the policy at the beginning of his or her term of service or employment and each year thereafter. Failure to sign does not nullify the policy.

Conflict of Interest Policy

The purpose of the following policy and procedures is to compliment organization bylaws to prevent the personal interest of staff members, board member, and volunteers from interfering with the performance of their duties to, or result in personal financial, professional or political gain on the part of such persons at the expense of or its Members, supporters, and other stakeholders.

Definitions: Conflict of interest (also Conflict) means a conflict, or the appearance of a conflict, between the private interests and official responsibilities of a person in a position of trust. Persons in a position of trust include staff member, officers, and board members of. Board means the board of Directors. Officer means an officer of the Board of Directors. Volunteer means a person other than a board member who does not receive compensation for services and expertise provided to and retains a significant independent decision-making authority to commit resources of the organization. Staff member means a person who receives all or part of her/his income from the payroll of. Member means a member of which shall be a state association of nonprofit organizations that represent a statewide and multi-sector or subsector 501 (c) 3 constituency with a diverse range of corporate identities, or a regional association of nonprofit organizations that represent a specific region within a state or multi-state geographic area and a multi-sector or subsector constituency with a diverse range of corporate identities. Supporter mean corporations, foundations, individuals, 501(c)3 non profits, and other nonprofit organizations who contribute to.

Policy and Practices

Full disclosure, by notice in writing, shall be made by the interested parties to the full Board of Directors in all conflicts of interest, including but not limited to the following:

a. A board member is related to another board member of staff member by blood, marriage or domestic partnership.

b. A staff member in supervisory capacity is related to another staff member who she/he supervises.

c. A board member or their organization stands to benefit from an transaction or staff member of such organization receives payment from a regular job responsibilities or a reimbursement for reasonable expenses incurred as provided in the bylaws and board policy.

d. A board member's organization receives grant funding from.

e. A board member or staff member is a member of the governing body of a contributor to.

f. A volunteer working on behalf of who meets any of the situations or criteria listed above.

Following full disclosure of a possible conflict of interest to any condition listed above, the Board of Directors shall determine whether a conflict of interest exists and, if so the board shall vote to authorize or reject the transaction or take any other action deemed necessary to address the conflict and protect's best interests. Both votes shall be by a majority vote without counting the vote of any interest director, even if the disinterested directors are less than a quorum provided that at least one consenting director is disinterested.

A Board member or Committee member who is formally considering employment with must take a temporary leave of absence until the position is filled. Such a leave will be taken within the Board member's elected term which will not be extended because of the leave. A Board member or Committee member who formally considering
employment with must submit a written request for a temporary leave absence to the Secretary of the Board, c/o the office, indicating the time period of the leave. The Secretary of the will inform the Chair of the Board of such a request. The Chair will bring the request to the Board for action. The request and any action taken shall be reflected in the official minutes of the Board meeting.

An interested Board member, officer, or staff member shall not participate in any discussion or debate of the Board of Directors, or of any committee or subcommittee thereof in which the subject of discussion is a contract, transaction, or situation in which the subject of discussion is a contract, transaction, or situation in which there may be a perceived or actual conflict of interest. However, they may be present to provide clarifying information in such a discussion or debate unless objected to by any present board of committee member.

Anyone in a position to make decisions about spending resources (i.e., transactions such as purchases contracts) – who also stands to benefit from that decision – has a duty to disclose that conflict as soon as it arises (or becomes apparent); she/he should not participate in any final decisions.

A copy of this policy shall be given to all Board member, staff members, volunteers or other key stakeholders upon commencement of such person’s relationship with or at the official adoption of state policy. Each board member officer, staff member and volunteer shall sign and date the policy at the beginning of his or her term of service or employment and each year thereafter. Failure to sign does not nullify the policy.

This policy and disclosure form must be filed annually by all specified parties.

__________________________  __________________________
Signature                              Date
D. PROPOSED EDUCATIONAL MANAGEMENT ORGANIZATION (EMO OR CSO)

If the Charter School plans to contract for services with an "educational management organization" or "charter support organization," please specify the name of the company, address, phone number, contact person, fax, and email: N/A

1. Please include a copy of the proposed management agreement of the specified EMO and explain how the contract will be in the best educational and financial interests of the charter school.
2. What other EMO/CMOs were pursued and why did the applicant select this particular one?
3. Describe how the governance structure will be affected; if at all, by the EMO/CMO and particularly discuss how the board of directors of the charter school will govern the school independently of the EMO/CMO.
4. Explain how the contract includes measurable objectives whereby the charter school board can evaluate annually the performance of the EMO/CMO, and if necessary, terminate the contract without significant obstacles.

Tri-County Academy of STEM is not in contractual agreement for services with an Educational Management Organization or Charter Support Organization. All governance of Tri-County Academy of STEM will remain with the Governing School Board. However, if the Governing School Board deems it necessary and approves the request for such services, Tri-County Academy of STEM reserves the right to seek services of an EMO or CSO whereby the Governing School Board remains in control of the school at all times.
E. **ADMISSIONS POLICY** (G.S.115C-238.29B(b)(4); G.S. 115C-238.29F(d)(1))

Provide a description of the policies and the procedures for admitting students to the proposed charter school, including specific details of the enrollment lottery plan.

**Admissions Policy**

Tri-County Academy of STEM will be open to all students entitled to attend public school who submit a timely and complete application. Tri-County Academy of STEM will not discriminate on the basis of race, color, gender, national origin, creed, sex, ethnicity, sexual orientation, disability, age, religion, ancestry, athletic performance, and association with an individual who has any of the aforementioned characteristics. All applications will be considered for admission.

Due to the diverse racial and demographics represented of the communities Tri-County Academy of STEM will serve, the school is expected to represent the broad demographic diversity of the community with a focus of at-risk youth, African-Americans, Latinos and Native Americans.

**Admission Criteria**

Tri-County Academy of STEM will give priority or pre-lottery status in admissions to the following students:
- Students who are the sibling of an already admitted and continuing student enrolled in the charter school
- Students who are the children of a current employee or founding board member of the charter school
- Current and continuing students from the previous grade/school year will be admitted directly
- Available spots will be determined and publicized to the community

A lottery process will be held for applicants in the above priority groups exceed available vacancies.

**Admission Information**

Tri-County Academy of STEM will have an admission process with pre-announced enrollment period and deadlines.

All student enrollment process and details, including deadlines for applications, lottery date, registration requirements and necessary documents, and waiting-list enrollment information, will be publicly available and announced at the school website and office.

Tri-County Academy of STEM will make public all enrollment information with flyers, bulletins, newspaper ads, websites, emails, town meetings, and informational open house sessions.

Applications will be made available at the school, public announcements and events, and on the school website.

**Application Procedures**

- Applications submitted by the application deadline will have pre-application status.
- All applicants will be assigned a unique number for lottery or admission purposes. Multiple birth siblings will be assigned the same number.
- All applications of siblings of students with pre-lottery status, whose complete application is received before the application deadline, will be pre-selected and placed in open slots or on a waiting list. If there are more applicants than slots available in this category, a priority lottery will be conducted for students with pre-lottery status.
- During the pre-application process all applicants who apply by the application deadline will have equal opportunity in the lottery process.
• If and when the school reaches its full student capacity approved by its charter, a waiting list will be formed in the order in which each application is received.
• After the application deadline, applications for students will be accepted on a rolling basis throughout the school year and each complete application form will be recorded with the acceptance date and time information.
• A written admissions application is required for each student. Electronic and paper submissions of the pre-application and application forms will be accepted and carefully registered.
• Transfer students must follow regular lottery procedures and waiting list rules.

Admission Lottery & Registration

In the event that new student applications received by the registration deadline exceed the student spots available, eligible students to register will be determined by a lottery system. The following lottery procedures, where applicable, will be in place:
• During the lottery process, all applicants who applied by the pre-announced application deadline will have equal opportunity in the drawing
• Students whose pre-application is received by the deadline and whose name is drawn in the lottery will be invited to register. Parents/legal guardians of lottery winners will be furnished with all necessary information and deadlines
• The waiting list will also be prioritized through a lottery process for the student applications submitted by the registration deadline. Parents of waiting list students will be informed of their child’s position on the list
• All remaining eligible students will be placed on a waiting list and accepted by lottery as space becomes available
• We will have a rolling enrollment process throughout the year after the application deadline
• Students whose pre-application is received by the application deadline will be notified of their initial enrollment status within one week after the lottery.
• Students who decline to enroll when invited to register will be deleted from the admission list, and a new application will be necessary for future consideration.
• Students whose names are drawn in the lottery must confirm their intention of enrolling within the time allotted in their notification of admission according to the admission timetable below.
• Once all waiting list students are invited for registration, and they deny or choose not to respond to the registration invitation, Tri-County Academy of STEM will fill remaining spots on a first-come, first-served basis.

Admission Timeline

The following represents a timeline for admissions including pre-application, lottery, and enrollment:

<table>
<thead>
<tr>
<th>Admission Agenda</th>
<th>Calendar Timeline</th>
</tr>
</thead>
<tbody>
<tr>
<td>Community awareness campaign / marketing</td>
<td>January</td>
</tr>
<tr>
<td>Pre-Application</td>
<td>January – February</td>
</tr>
<tr>
<td>Open House</td>
<td>February</td>
</tr>
<tr>
<td>Application Deadline</td>
<td>February 29</td>
</tr>
<tr>
<td>Lottery Date</td>
<td>March 1</td>
</tr>
<tr>
<td>Notification of Lottery winners</td>
<td>Week of March 15</td>
</tr>
<tr>
<td>Registration for lottery winners deadline</td>
<td>April 13</td>
</tr>
<tr>
<td>Registration for eligible waiting list candidates deadline</td>
<td>April 27</td>
</tr>
<tr>
<td>Open vacancies registration begins</td>
<td>April 30</td>
</tr>
<tr>
<td>Orientation</td>
<td>August 14</td>
</tr>
<tr>
<td>First day of school</td>
<td>August 28</td>
</tr>
</tbody>
</table>
Student Records

All records at Tri-County Academy of STEM will be subject to retention laws, policies, and procedures of the NC State Board of Education. Student records will be kept in a limited access environment. No records will be shared without written consent except to those parties allowed, i.e. parents/legal guardian.

The following documentation will be obtained before the first day of school:

- Copy of Original Birth Certificate
- Health Assessment completed by the student’s health care provider
- Current Immunization Record
- Parent Handbook Review Form (this includes the discipline policy and parent participation requirements)
- Emergency Contact Information (local contacts required)
v. EDUCATION PLAN

NOTE: Answer all sections completely, include your answers in this section of the application, do not include as an appendices. Do not use "same as LEA" or "whatever the law says". The State Board of Education shall give priority consideration to the applicants who demonstrate potential for significant, meaningful innovation in education. Give explanations. Lack of proper documentation will jeopardize the application review.

INSTRUCTIONAL PROGRAM: (G.S. 115C-238.29F (d))

Provide a detailed description of the overall instructional program, including the following:

1. Educational theory, foundation of the model, and proposed innovative offerings.

Tri-County Academy of STEM (Science, Technology, Engineering and Math) delivers education in the form of project-based learning in a cooperative and collaborative classroom. Research indicates that project-based learning can increase student interest in science, technology, engineering and math because they involve students in solving authentic problems, while developing skills to work with others, and building real solutions. Through an integrated approach to STEM education focused on real-world, authentic problems, students learn to reflect on the problem-solving process. Research tells us that students learn best when encouraged to construct their own knowledge of the world around them. It is through integrated STEM projects that this type of learning can occur.

There are five benefits to the STEM project-based learning approach - First, students get a variety and choice of learning tasks to involve them in the learning process and increase their motivation to complete the project. Second, they receive explicit communications and explanations to curtail frustrations that can cause barriers to learning. Third, they have opportunities to model solutions, practice solving problems, and receive constructive feedback on high-level tasks from peers and coaches (teachers). Fourth, they engage in a student-centered instructional environment that focuses on the interests and needs of the individual learners. And fifth, each learner receives support for their individual learning needs and levels of development, from the high achievers to the struggling learners.

STEM education is vital as the US Department of Labor reports the fastest growing occupations will require a strong background in math and science. STEM education responds to the challenges of the workforce projections by offering students and teachers educational opportunities and strategies that engage the mind and prepare them to be designers, innovators and critical thinkers to solve complex problems.

2. Teaching approach, class structure, curriculum design, and instructional methodology, courses of study, etc.

Teaching Approach

Early childhood curriculum and teaching methods are best when they address children's lively minds so that they have frequent opportunities to be fully intellectually engaged in the kinds of investigations known as the Project Approach. - Katz, Lilian G., & Chard, Sylvia C. (2000). Engaging children’s minds: The project approach (2nd ed.). Stamford, CT: Ablex
**Problem-Based Learning** — (PBL) is a student-centered instructional strategy in which students collaboratively answer questions and solve problems and then reflect on their experiences (inquiry).

Characteristics of PBL are:
- Learning is driven by challenging, open-ended problems.
- Students work in small collaborative groups.
- Teachers take on the role as “facilitators” of learning.

Research on project-based learning has shown results similar to that of inquiry-based teaching and learning.

**The Project Approach Related to STEM Goals**

In terms of the aims of the STEM program, these four basic learning goals are appropriate during the early years of education: (1) knowledge/understanding, (2) skills, (3) dispositions, and (4) feelings. In the matter of goals and objectives related to science, technology, engineering, and math, children are likely to gain greatly in all four of these kinds of learning goals when they have opportunities to engage in in-depth investigations and explore with the use their knowledge and understanding.

Projects are based on procedures in that they begin with a set of questions about the phenomena of interest, proceed to predictions of possible answers to the questions, followed by the gathering of data that can be expected to answer the questions as predicted.

Similarly, in the case of project-based work, once the topic of investigation has been agreed upon (usually by the children together with their teacher), the children are encouraged to predict what the answers to their questions might be. This step is followed by a discussion of what data will be needed to answer their questions and to test their predictions. Data gathering, called fieldwork, that can be expected to provide answers to their questions is then planned and undertaken by the children. Following a wide range of relevant fieldwork, which can include conducting surveys, interviews, asking questions of visiting experts, conducting experiments, drawing and measuring relevant phenomena, etc., findings are discussed as new knowledge and understandings are agreed upon. - Katz, Lilian G., & Chard, Sylvia C. (2000). Engaging children’s minds: The project approach (2nd ed.). Stamford, CT: Ablex.

**Classrooms**

Tri-County Academy of STEM classrooms are designed to foster cooperative and project-based learning including group settings, laptops, LCD projectors for virtual experience and centers with 21st Century learning discovery and learning experiences. Classrooms are student-centered with support and guidance from teachers.
Curriculum Design

Digital curriculum integrated with digital teaching technologies — STEM education affords an opportunity to deliver curricula to students in non-traditional ways. It is time that high quality digital curricula be developed and be made available to classroom teachers and curriculum designers at the local level. Digital curriculum has many advantages over traditional, analog (paper-based) curriculum. It can be web-based, meaning it can be readily accessible from any Internet-connected computer, can be accessible to people with disabilities, can be readily updated by teachers and/or school districts, and is often more current. In addition, digital teaching technologies such as computers, interactive whiteboards, tablets, student response systems, LCD projectors, digital cameras, and digital microscopes can be used to complement the digital curriculum delivery. A STEM education curriculum should be designed to take full advantage of the digital format.

The STEM Curriculum is an integrated approach to connect course work or grade level expectations of different disciplines into one project-based learning or inquiry-based assignment. The concept is to naturally bring science and math into the forefront of learning of all required standards instead of fragmented knowledge learned in traditional teacher centered classrooms.

Curriculum Resources:

- BRAINPOP Jr & BRAINPOP STEM
- SAS Curriculum Pathways
- DefineSTEM & The Futures Channel
- Verizon Thinkfinity
- STEM Resources
- Supercharged Science & Math
- Discovery Education

Instructional Methodology

Tri-County Academy of STEM will deliver STEM instruction will use Constructivism as a learning strategy that draws on students' existing knowledge, beliefs, and skills. With a constructivist approach, students synthesize new understanding from prior learning and new information.

The constructivist teacher sets up problems and monitors student exploration, guides student inquiry, and promotes new patterns of thinking. Working mostly with raw data, primary sources, and interactive material, constructivist teaching asks students to work with their own data and learn to direct their own explorations. Ultimately, students begin to think of learning as accumulated, evolving knowledge. Constructivist approaches work well with learners of all ages, including adults.
The 5E instructional model

This model describes a teaching sequence that can be used for STEM programs, specific units and individual lessons. The 5E constructivist learning cycle helps students build their own understanding from experiences and new ideas.

The 5Es represent the five stages of a sequence for teaching and learning: Engage, Explore, Explain, Elaboration and Evaluate. The 5E model was developed by The Biological Science Curriculum Study (BSCS).

ENGAGE

Pique students’ interest and get them personally involved in the lesson while pre-assessing prior understanding. Students are introduced to the instructional task during the ENGAGE stage. They make connections between past and present learning experiences and think about what they’ll learn during the upcoming activities. PBL activities are designed to ENGAGE students. Through activities and experiments, the lesson plans stimulate students’ curiosity and encourage them to ask their own questions.

EXPLORATION

Get students involved in the topic so they can develop their own understanding. EXPLORATION experiences provide students activities that help them identify and improve upon current concepts (i.e., misconceptions), processes and skills. Project Based Learners use prior knowledge to generate new ideas, explore questions and possibilities, and design and conduct a preliminary investigation. The teacher acts as a facilitator, providing materials and guiding the students’ focus.

EXPLAIN

Provide students with an opportunity to communicate what they have learned and figure out what it means. During the EXPLAIN stage, students begin to communicate what they have learned by demonstrating their conceptual understanding, process skills or behaviors. Students share ideas with each other and with their teacher, who provides an explanation of the curriculum that is meant to guide them toward a deeper understanding. These segments introduce vocabulary in context and correct or redirect misconceptions.

ELABORATION

Allow students to use their new knowledge and continue to develop a deeper and broader understanding. During the ELABORATION stage, students expand on the concepts they have learned, make connections to other related concepts and apply their understandings to the world around them through additional activities. Teachers challenge and extend students’ conceptual understanding and skills.

EVALUATE*

Asses how much learning has taken place. The EVALUATION phase helps students and teachers assess how much learning and understanding has taken place. It allows teachers to evaluate student progress toward achieving the educational objectives.

*Evaluation and assessment can occur at any point during the instructional process
Courses of Study

Tri-County Academy of STEM will align with the Common Core State Standards in K-12 Mathematics and K-12 English Language Arts released by the National Governors Association Center for Best Practices and the Council of Chief State School Officers. With the adoption of these state-led education standards, North Carolina is in the first group of states to embrace clear and consistent goals for learning to prepare children for success in college and work. The full Common Core standards can be viewed at www.corestandards.org.

Math
Common Core State Standards for Mathematics

English Language Arts
Common Core State Standards for English Language Arts & Literacy in History/Social Studies, Science, and Technical Subjects

3. Compliance with Federal and State regulations for serving exceptional children.

The philosophy of Tri-County Academy of STEM for exceptional children

All students can learn and have the right to an educational program that is designed to meet his/her individual needs. All students are to be provided appropriate opportunities for growth academically, socially, and emotionally.

Tri-County Academy of STEM:

- Identify the needs of each student with a disability and to develop an Individualized Education Program to meet those needs
- Assure that students with disabilities are educated in settings with their non-disabled peers to the maximum extent appropriate
- Be cognizant of and protect the rights of students with disabilities and their parents in developing programs and services to meet their needs
- Hold special education services to high standards of accountability to improve results for students with disabilities
- Provide training and support for all educators to have the knowledge and skills which enables them to effectively assist students with disabilities in attaining high standards
- Eliminate unnecessary referrals to special education and assure that students unnecessarily placed, or who no longer require special education services, are returned to a supportive general

Each child with special needs will have an Individual Educational Program (IEP). An IEP team for each child consisting of the parents of the child, a regular education teacher of the child, a special education teacher of the child, the child by himself or herself, if appropriate, a representative of the public agency and other individuals as needed. Tri-County Academy of STEM will ensure to carry out the IEP plan and to accommodate the children with special needs at its highest possible potential in a least restrictive environment. Therefore, children with special needs will be mainstreamed with children who are not disabled. Children with special needs will be in special classes or removed from the regular educational environment if their education cannot be accomplished satisfactorily in regular educational environments due to the nature of the child’s disability.
4. Entrance and exit requirements as well as graduation requirements (if the school is to be high school).

High School entrance criteria will require successful completion of the eight (8) grade and teacher recommendation for promotion to the 9th grade.

Tri-County Academy will abide in the NC DPI Future-Ready Core requirements of 22 credits for high school exit criteria for graduate candidates.

Select IEP students who are excluded from EOC Proficiency level requirements will require 22 credits of the Occupational Course of Study.

Full graduation requirements can be viewed at www.ncpublicschools.org/curriculum/graduation/
5. The school calendar (must provide instruction for a minimum of 185 instructional days)  
(G.S.115C-238.29F(d)(1))

**Tri-County Academy of STEM Charter School**  
**2012-2013 School Calendar (185 days)**

<table>
<thead>
<tr>
<th>Monday- Wednesday</th>
<th>August 8,9,10,2012</th>
<th>Staff Development Day / Teacher work days</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thursday &amp; Friday</td>
<td>August 16, 17,2012</td>
<td>Planning / Teacher work days</td>
</tr>
<tr>
<td><strong>Monday</strong></td>
<td><strong>August 15,2012</strong></td>
<td>First Day of School for Students</td>
</tr>
<tr>
<td>Monday</td>
<td>September 3,2012</td>
<td>Holiday</td>
</tr>
<tr>
<td>Wednesday</td>
<td>September 26,2012</td>
<td>Staff Development 3:00-5:00pm</td>
</tr>
<tr>
<td>Friday</td>
<td>October 19,2012</td>
<td>Statewide Professional Day</td>
</tr>
<tr>
<td>Thursday</td>
<td>October 25,2012</td>
<td>Student Holiday/Teacher Non-Workday</td>
</tr>
<tr>
<td>Friday</td>
<td>October 26,2012</td>
<td>End of 1st Marking Period (50 days)</td>
</tr>
<tr>
<td>Monday</td>
<td>October 29,2012</td>
<td>Student Holiday/Teacher Workday / Staff Development 3:00-5:00pm</td>
</tr>
<tr>
<td>Monday - Friday</td>
<td>November 19-23,2012</td>
<td>Thanksgiving Break</td>
</tr>
<tr>
<td>Wednesday</td>
<td>December 19,2012</td>
<td>Nov. 19 – 21 – Student Holidays/Teacher Non-Workdays</td>
</tr>
<tr>
<td>Two Weeks</td>
<td>Dec. 24 – Jan. 4,2013</td>
<td>Staff Development 3:00-5:00pm</td>
</tr>
<tr>
<td>Monday</td>
<td>January 7,2013</td>
<td>Winter Break</td>
</tr>
<tr>
<td>Thursday</td>
<td>January 17,2013</td>
<td>Students return to school</td>
</tr>
<tr>
<td>Friday</td>
<td>January 18,2013</td>
<td>End of 2nd Marking Period (44 days)</td>
</tr>
<tr>
<td>Monday</td>
<td>January 21,2013</td>
<td>Student Holiday/Teacher Workday / Staff Development 3:00-5:00pm</td>
</tr>
<tr>
<td>Tuesday</td>
<td>January 22,2013</td>
<td>Holiday</td>
</tr>
<tr>
<td>Monday</td>
<td>February 18,2013</td>
<td>Begin 2nd Semester/3rd Marking Period</td>
</tr>
<tr>
<td>Wednesday</td>
<td>February 27,2013</td>
<td>Holiday</td>
</tr>
<tr>
<td>Thursday</td>
<td>March 21,2013</td>
<td>Staff Development 3:00-5:00pm</td>
</tr>
<tr>
<td>Friday</td>
<td>March 22,2013</td>
<td>End of 3rd Marking Period (42 days)</td>
</tr>
<tr>
<td>Monday-Friday</td>
<td>March 25-29,2013</td>
<td>Student Holiday/Teacher Workday / Staff Development 3:00-5:00pm</td>
</tr>
<tr>
<td>Monday</td>
<td>April 1,2013</td>
<td>Spring Break</td>
</tr>
<tr>
<td>Wednesday</td>
<td>April 24,2013</td>
<td>Begin 4th Marking Period</td>
</tr>
<tr>
<td>Monday</td>
<td>May 27,2013</td>
<td>Staff Development 3:00-5:00pm</td>
</tr>
<tr>
<td>Wednesday</td>
<td>May 29,2013</td>
<td>Student/Teacher Holiday</td>
</tr>
<tr>
<td>Friday</td>
<td>June 7,2013</td>
<td>Staff Development 3:00-5:00pm</td>
</tr>
<tr>
<td>Monday - Tuesday</td>
<td>June 10,11,2013</td>
<td>Last day of school</td>
</tr>
</tbody>
</table>

**School day:**  
8:00am – 3:00pm  

**Afterschool:**  
3:00pm – 6:00pm
6. A concise description of any evaluation tool or test, if any, that the proposed charter school will use in addition to any state or federally mandated tests and how this data will be used to drive instruction.

Tri-County Academy of STEM Charter School will adopt the **5E Teaching, Learning, and Assessing Cycle**—The 5E cycle (Engagement, Exploration, Explanation, Elaboration, and Evaluation) has been advocated by many curriculum designers and educational researchers as an effective planning and teaching paradigm that leads to improved student performance. Since its introduction in the 1980s, the 5E cycle has been extensively researched, with the results showing enhanced mastery of subject matter, increased ability in developing scientific reasoning, and positive increases in cultivating interest and attitudes about science and other subject domains of learning.

Tri-County Academy of STEM Charter School will collect and document the outcomes of the 5e Learning Cycle to evaluate the overall effectiveness of the school program. These outcomes will drive performance outcome indicators, school improvement plans, and overall effectiveness of presenting and facilitating learning in the classrooms.

In addition, once a year an independent quality assurance consultant will serve to observe and audit findings through observation, parent feedback, Board members, faculty, and staff surveys, end of year testing outcomes, school reports, and progress as it pertains to school improvement or development goals, and specific strategic and operational goals. It will include both objective and subjective measures and summaries. This review will be delivered to the Board at the end of the fiscal/academic year.
7. A description of the student achievement goals for the school's educational program and the method of demonstrating that students have attained the skills and knowledge specified for those goals. These goals should include specific and measurable performance objectives over time. A timeline should be included to highlight how the school proposes to meet its objectives.

**School Achievement Objective:** to establish student achievement in mathematics, language arts, and science as demonstrated through end of year assessments / end of grades AYP results through STEM curriculum using Project Based Learning classroom. Tri-County Academy of STEM will achieve 85% proficiency as measured by EOG and EOC test results within 3-5 years.

<table>
<thead>
<tr>
<th></th>
<th>Goal</th>
<th>Strategy</th>
<th>Owner</th>
<th>Implementation time per year</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Set classroom and learning environment expectations</td>
<td>What is Project Based Learning?</td>
<td>Teachers</td>
<td>1 week</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Describe Teacher's role</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Describe Student’s role</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Model “right” PBL vs. “wrong” PBL</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Teach students Expectation Levels</td>
<td>What is a RUBRIC?</td>
<td>Teachers</td>
<td>1 week</td>
</tr>
<tr>
<td></td>
<td></td>
<td>How to read a rubric</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>How to self - assess</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Establish STEM focus lesson plans</td>
<td>Plan and collaborate</td>
<td>Teachers</td>
<td>August – May 9months</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Integrate disciplines and their objectives</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Begin with the end</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Foster confidence in delivery of teaching and facilitating in a Project Based Learning Classroom</td>
<td>Provide regular scheduled Professional Development for:</td>
<td>Director</td>
<td>July – June 10months</td>
</tr>
<tr>
<td></td>
<td></td>
<td>STEM lessons</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>PBL</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>5E</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Effective Assessments Etc.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Qualify and Quantify Assessments</td>
<td>Assess and evaluate effectiveness of learning.</td>
<td>Teachers</td>
<td>End of each marking period</td>
</tr>
</tbody>
</table>
8. An explanation of how the school will provide assistance to students that are not performing at expected levels to ensure the continued progress of student growth. The applicant needs to define their “expected levels” of performance and delineate a plan accordingly.

The Tri-County Academy of STEM will use the Response to intervention method for assisting students that are not performing grade level expectations.

Response to Intervention (RTI) is a combination of high quality, culturally and linguistically responsive instruction; assessment; and evidence-based intervention. The intervention is an implementation of 6 critical components: 1-Screening; 2-Measure/Identify; 3-Measure Baseline Data; 4-Develop Accountability Plan; 5-Monitor Progress; 6-Compare Data. Comprehensive RTI implementation will contribute to more meaningful identification of learning and behavioral problems, improve instructional quality, provide all students with the best opportunities to succeed in school, and assist with the identification of learning disabilities and other disabilities.

9. Details of the proposed charter plans to involve parents and community members in the school.

Tri-County Academy of STEM recognizes the student’s success is incomplete without parental involvement. Family-school collaboration is a cooperative process of planning that brings together school staff, parents, children, and community members to maximize resources for child achievement and development. Tri-County Academy of STEM intends to involve parents on several levels:

- Regular scheduled STEM nights for students to demonstrate project based learning
- Weekly newsletters, Website updates, school hotline
- Parent-student surveys
- Parent participation meetings such as PTO, School Development meetings, Community Committees
- Effective teacher – parent communication – early intervention
- Child Family Team meetings
- Implement system of care support for barriers, such as hunger, medical needs, lack of utilities

10. Explanation of how the school will meet the needs of gifted students, English language learners, and other at risk students. Includes details of the school’s process for identification and service of these students.

Tri-County Academy of STEM will provide a quality education for their gifted student that aligns with the North Carolina Academically or Intellectually Gifted Program Standards (Article 9B—N.C.G.S 115C-150.05).

English language learners and “at risk” students will be provided explicit targeted instruction based on curriculum based measured assessment results. Tri County Academy of STEM teachers will use the Response to Intervention to identify our English language learners and our at-risk students.

The Response to Intervention implementation includes 6 critical components: 1-Screening; 2-Measure/Identify; 3-Measure Baseline Data; 4-Develop Accountability Plan; 5-Monitor Progress; 6-Compare Data.
SPECIAL EDUCATION (G.S. 115C-108)

The charter school must accept special needs children under the federal legislation *Individuals with Disabilities Education Act (IDEA)* (20 U.S.C. 1400 Et seq.) and the state legislation (G.S. 115C-106 Et seq.).

Provide a clear and thorough explanation of the procedures the proposed charter will follow to insure compliance of the above laws.

The collaboration between the Tri-County Academy of STEM approach and special education is a natural environment for children with disabilities. The Tri-County Academy of STEM project based learning method with the 5E learning model allows for every child the ability to learn from where they are academically, socially and emotionally including exceptional children. In the Tri-County Academy of STEM classrooms, each student is viewed as an individual possessing unique gifts and sometimes challenges in their educational process. The intrinsic nature and design of the Project Based Learning – 5E learning model instructional method to learning at Tri-County Academy of STEM is demonstrative of the acceptance of every student regardless of ethnicity, national origin, gender, or disability. The curriculum in our Tri-County Academy of STEM classrooms is compatible with the individualization required by both state and federal law for children with disabilities. Each student receives access to the curriculum based on his or her individualized approach to learning and need. Through partnerships with our local school district’s professional services/resources, Tri-County Academy of STEM already consistently assesses individual student needs and provides the necessary individualized access to those resources and services. Work in a Tri-County Academy of STEM classroom is introduced to children based on individual readiness and understanding. When a child who is in any way works differently on an individual need or skill that is varied from the needs of his peers, he or she is not set apart as different. The curriculum and overall approach to education in Tri-County Academy of STEM classrooms is compatible with the individualization required by IDEA for children with disabilities to access the STEM curriculum.

The Tri-County Academy of STEM will use the Response to intervention method to establish appropriate pupil education plans.

Response to Intervention (RTI) is a combination of high quality, culturally and linguistically responsive instruction; assessment; and evidence-based intervention. The intervention is an implementation of 6 critical components: 1-Screening; 2-Measure/Identify; 3-Measure Baseline Data; 4-Develop Accountability Plan; 5-Monitor Progress; 6-Compare Data. Comprehensive RTI implementation will contribute to more meaningful identification of learning and behavioral problems, improve instructional quality, provide all students with the best opportunities to succeed in school, and assist with the identification of learning disabilities and other disabilities.
STUDENT CONDUCT AND DISCIPLINE (G.S.115C-238.29B(b)(12); G.S. 115C-238.29F(d)(4 and 5))

Provide drafts, included in this section (do not include as an appendices), of student handbooks and other policies governing student conduct and discipline. Include policies and procedures governing suspension and expulsion of students. Specifically address these policies with respect to exceptional children. Also describe how a parent could appeal the decision of a school administrator through a grievance process.

Student Conduct and Discipline

All students at Tri-County Academy of STEM will comply with all rules governing behavior and conduct. It is the Tri-County Academy of STEM Governing School Board’s responsibility to establish a set of written rules. The Board will revisit, revise and update student conduct rules when necessary. For application of these rules within the school environment, it is the responsibility of the Tri-County Academy of STEM Director: 1) to investigate fully the cases of students appropriately referred for misconduct and/or misbehavior, 2) to ensure fair treatment of such students and protection of their procedural and substantive rights, and to determine what, if any, action is warranted.

Philosophy

Tri-County Academy of STEM supports the NO REJECT, NO EJECT philosophy for ALL students as a means to serve as a youth advocate by delivering an effective learning environment measured by the results of the achievements of reaching the “hard and difficult” to serve.

Tri-County Academy of STEM will effectively integrate behavioral modification techniques and basic life skills where children mature, with improved cognitive and impulsive behaviors, and develop appropriate social and community behaviors. If necessary, a student’s learning day may include Positive Behavior Reinforcement, Cognitive Behavioral Therapy, Functional Family Therapy, Motivational Interviewing and Trauma-Focused Cognitive Behavioral Therapy are used to affect behavior modification and success in the school setting, home, and community.

Student Code of Conduct

Tri-County Academy of STEM will implement Positive Behavioral Support (PBS) is an empirically validated, function-based approach to eliminate challenging behaviors and replace them with pro-social skills. Use of PBS decreases the need for more intrusive or aversive interventions (i.e., punishment or suspension) and can lead to both systemic as well as individualized change.

PBS can target an individual student or an entire school, as it does not focus exclusively on the student, but also includes changing environmental variables such as the physical setting, task demands, curriculum, instructional pace and individualized reinforcement. Thus it is successful with a wide range of students, in a wide range of contexts, with a wide range of behaviors.

PBS is based on behavioral theory; problem behavior continues to occur because it is consistently followed by the child getting something positive or escaping something negative. By focusing on the contexts and outcomes of the behavior, it is possible to determine the functions of the behavior, make the problem behavior less effective and efficient, and make the desired behavior more functional. This often involves changing systems, altering environments and teaching new skills, as well as focusing on the problem behavior.
The most crucial part of devising an individualized plan for PBS is the Functional Behavioral Assessment (FBA) or an equivalent behavioral plan, which reveals information about the antecedents, consequences, and frequency of challenging behavior. FBAs also help to identify any co-occurring variables. Conducting FBAs doubles the success rate of an intervention.

The outcomes from the FBA as such, are the building blocks for the Person Centered Plan or an Individual Education Plan for each child with identified goals to monitor, evaluate and reassess. This is a collaborative effort among parents, school teachers, counselors and administrators; all partners should be committed to the plan and its implementation. This proven approach is more effective when it includes the child as well as other significant individuals (i.e., peers, teachers, and parents).

Effective implementation of PBS includes:

- An FBA or an equivalent behavioral plan, conducted when the problem behavior is first observed or as a proactive activity
- A customized plan including goals and skill building to facilitate positive outcomes and success
- Focus both on prevention of problem behaviors and early access to effective behavior support.
- Culturally competent, family-friendly behavior support
- Implementation with sufficient intensity and precision such as intense interventions that implements PBIS to produce behavioral gains have a significant and durable impact on the academic, social and living options available to the student.
**TIMELINES**

- Please create and describe a detailed start-up plan, identifying major tasks, timelines, and responsible individuals for accomplishing those tasks.

<table>
<thead>
<tr>
<th>Start-Up Activities</th>
<th>Time Frame (2012)</th>
<th>Person Responsible</th>
</tr>
</thead>
<tbody>
<tr>
<td>Create marketing material &amp; School Website</td>
<td>January</td>
<td>Board Members</td>
</tr>
<tr>
<td>Recruit Students &amp; Staff</td>
<td>January - March</td>
<td>Board Members / Director</td>
</tr>
<tr>
<td>Prepare current facility for charter school</td>
<td>April - July</td>
<td>Director</td>
</tr>
<tr>
<td>Accept School Applications</td>
<td>January - March</td>
<td>Receptionist</td>
</tr>
<tr>
<td>Public Lottery for admissions</td>
<td>March 1</td>
<td>Board Chair &amp; Vice Chair</td>
</tr>
<tr>
<td>Notify parents of admissions</td>
<td>Week of March 14</td>
<td>Receptionist</td>
</tr>
<tr>
<td>Identify school day operation logistics</td>
<td>April - July</td>
<td>Director / Board</td>
</tr>
<tr>
<td>Identify needed expenses to open</td>
<td>April - July</td>
<td>Director</td>
</tr>
<tr>
<td>Transportation Plan</td>
<td>June - July</td>
<td>Director / Board</td>
</tr>
<tr>
<td>Hire Faculty and Staff</td>
<td>June</td>
<td>Director / Board</td>
</tr>
<tr>
<td>STEM program preparation / purchase subscriptions</td>
<td>June - August</td>
<td>Director / Board</td>
</tr>
<tr>
<td>New hire orientation / human resource system</td>
<td>July</td>
<td>Director</td>
</tr>
<tr>
<td>Professional Development</td>
<td>August</td>
<td>Director / Board Chair</td>
</tr>
<tr>
<td>Prepare for open house</td>
<td>August</td>
<td>Director / Board</td>
</tr>
</tbody>
</table>
VII. BUSINESS PLAN

PROJECTED STAFF:
Provide a list of positions anticipated for the charter school; (e.g., principal or director; support staff; teachers, part-time and full-time; paraprofessionals/teaching assistants, clerical, and maintenance.)

Projected Staff for First Year:

Administration and Office Personnel: 1 full-time Director, 1 full-time Student Records and Receptionist

Teachers:
Full-time: 4 Lead Teachers, 2 Assistant Teachers
Other: Special Education Teacher (if enrollment dictates this as a need – We will seek to partner with our local district for professional resources to serve our special needs students.)

Technical Support: 1 part-time Technical / Computer Specialist

Maintenance Personnel: 1 part-time Custodian

Our projected number of staff, including lead and assistant teachers, changes with the annual projected growth of the school according to the following:

Year Two:
With an addition of a new building Tri-County Academy of STEM

Administration and Office Personnel: 1 full-time Director, 1 Assistant Director; 1 Finance Manager; 1 Guidance Counselor; 1 full-time Student Records; 1 full-time Receptionist, and 1 full-time Data Entry

Teachers:
Full-time: 10 Lead Teachers, 8 Assistant Teachers
Other: Special Education Teacher (if enrollment dictates this as a need – We will seek to partner with our local district for professional resources to serve our special needs students.)

Technical Support: 1 Full-time Technical / Computer Specialist

Maintenance Personnel: 1 Full-time Custodian; 1 part-time custodian

Year Three:

Administration and Office Personnel: 1 full-time Director, 2 Assistant Director; 1 Finance Manager; 1 Guidance Counselor; 1 full-time Student Records; 1 full-time Receptionist, and 1 full-time Data Entry

Teachers:
Full-time: 12 Lead Teachers, 10 Assistant Teachers
Other: Special Education Teacher (if enrollment dictates this as a need – We will seek to partner with our local district for professional resources to serve our special needs students.)

Technical Support: 1 Full-time Technical / Computer Specialist;

Maintenance Personnel: 2 Full-time Custodians;
Year Four:

Administration and Office Personnel: 1 full-time Director, 2 Assistant Directors, 1 Finance Manager, 1 Guidance Counselor, 1 full-time Student Records, 1 full-time Receptionist, and 1 full-time Data Entry

Teachers:
Full-time: 14 Lead Teachers, 12 Assistant Teachers
Other: Special Education Teacher (if enrollment dictates this as a need – We will seek to partner with our local district for professional resources to serve our special needs students.)

Technical Support: 1 Full-time Technical / Computer Specialist;

Maintenance Personnel: 2 Full-time Custodians;

Year Five:

Administration and Office Personnel: 1 full-time Director, 2 Assistant Directors, 1 Finance Manager, 1 Guidance Counselor, 1 full-time Student Records, 1 full-time Receptionist, and 1 full-time Data Entry

Teachers:
Full-time: 16 Lead Teachers, 14 Assistant Teachers
Other: Special Education Teacher (if enrollment dictates this as a need – We will seek to partner with our local district for professional resources to serve our special needs students.)

Technical Support: 1 Full-time Technical / Computer Specialist;

Maintenance Personnel: 2 Full-time Custodians;

Process to Advertise for Employment

Once positions or opportunities have been identified, and the required duties needed to be fulfilled Tri-County Academy will take the following or part thereof next steps:

➢ Post job opportunities with the NC Employment Security Commission
➢ Post Job opportunities on online bulletin boards & school website
➢ Advertise through local newspapers / classifieds
➢ Advertise with STEM coalitions to recruit STEM teachers

Employment process includes:

➢ Resume review meeting qualifications
➢ Phone interview
➢ Completed Application & references submission
➢ In person interview(s); a day in the school; reflection and feedback survey
➢ Submission of required documentation as such: valid IDs, Teaching License, Official transcript requests, etc.
➢ Fingerprints & Criminal background check
➢ Offer letter
Tri-County Academy of STEM handbook content includes but not limited to:

Employee roles and responsibilities excerpt

Director of the School is charged with the operation of the School within the policies and guidelines of the Board. A job description for the director shall be approved by the Board.

Lead Teachers will serve as facilitators of learning, allowing for student-centered classrooms. Teachers are responsible for establishing a positive learning environment. Teachers will be responsible for collaborating with other teachers to incorporate an integrated discipline approach to learning while meeting the Common Core State Standards objectives.

Assistant Teachers/Paraprofessionals serve as support in the classroom. Assisting the teacher to meet daily objectives while also tending to the needs of students in the classroom. Provide positive behavior interventions support and assistance of redirection.

The contents of the handbook include

- Disclaimer that handbook is not a contract
- Mission statement
- Equal Employment Opportunity (EEO) statement
- Anti-harassment policies
- Grievances Policy
- Employee responsibilities
- Leaves of absence policies
- Discipline policies

Disclaimer:
THE CONTENTS OF THIS HANDBOOK ARE GUIDELINES ONLY AND SUPERSEDE ANY PRIOR HANDBOOK. NEITHER THIS HANDBOOK NOR ANY OTHER SCHOOL GUIDELINE, POLICY OR PRACTICE CREATES AN EMPLOYMENT CONTRACT. THE SCHOOL HAS THE RIGHT, WITH OR WITHOUT NOTICE, TO CHANGE ANY OF ITS GUIDELINES, POLICIES, AND PRACTICES, WORKING CONDITIONS OR BENEFITS AT ANY TIME.

Job Description Policies Include:
- Job title
- Organization/reporting information
- Job summary statement
- Purpose and objective of the position
- Job responsibilities
- Working conditions
- Qualifications/essential functions/requirements/skills
- Equal Opportunity Employer statement

Equal Employment Opportunity Policy

We want to maintain an employee relations climate which promotes maximum personal development and achievement. We are an equal opportunity employer and do not discriminate on the bases of age, race, color, national origin, sex, religion, creed, veteran status, disability, sexual orientation or any other characteristic prohibited by law. Our Board and Director is dedicated to ensuring the fulfillment of this policy with respect to hiring, selection for training, promotion, transfer, layoff, termination, leaves of absence, rates of pay or any
other term or condition of employment. When necessary, we will reasonably accommodate employees and applicants with disabilities and with religious requirements necessitating accommodation. We expect everyone to show understanding and consideration to fellow employees and to respect and observe this policy.

**Anti-Harassment Policy**

We prohibit harassment on the basis of age, race, color, national origin, religion, disability, sex, sexual orientation or other protected characteristic. While it is not easy to define precisely what harassment on any of these bases is, it certainly includes slurs, epithets, threats, derogatory comments and unwelcome jokes, sexual advances, requests for sexual favors and other verbal or physical conduct such as uninvited touching or sexually-related comments. The purpose of this policy is not to regulate our employees’ personal morality. It is to assure that in the workplace, each employee is able to accomplish his or her job without being subjected to harassment.

**Discipline Policy**

School employees should behave in a manner that is conducive to the efficient operation of the school. Employees are expected to abide by all rules, regulations, policies, procedures and instructions of the school. To that end, all employees engaging in unacceptable conduct may be subject to discipline, up to and including termination. Each employee will be treated and respected as an individual. For this reason, an employee’s conduct and any disciplinary action will be reviewed on a case-by-case basis. Seriousness of the infraction, an employee’s length of service, work record and prior conduct will all be considered in determining the proper action to be taken.

The following steps may be taken by the school in response to acts of employee misconduct, however, a violation of any school rule or policy is sufficient grounds for disciplinary action up to and including termination.

- Step One: Oral warning
- Step Two: Written warning
- Step Three: Termination

Conduct which may result in disciplinary action includes, but is in no way limited to participation in the following:

- Discrimination or harassment
- Possession/use of alcohol/illegal drugs on school property or school time
- Use of foul or abusive language
- Insubordination
- Unauthorized disclosure of confidential or sensitive information
- Violation of safety and health policies and practices
- Excessive unauthorized absenteeism or tardiness
- Unsatisfactory performance
- Inappropriate conduct detrimental to the image of the school
- Violating any state or federal law while on school premises or school time
- Violation of any school rule or policy
QUALIFICATIONS REQUIRED FOR INDIVIDUAL POSITIONS: (G.S.115C-238.29F(e))

List the qualifications and appropriate licenses that each position must have to perform the job function(s). Describe the plan to meet the licensure requirements for teachers and paraprofessionals as prescribed by state law and No Child Left Behind. If individuals have already been identified for specific positions, please provide their qualifications and/or resumes in the appendices.

Director of School: Proven evidence of Operations Management experience. Must be technically astute as it pertains to 21st Century Learning; Teaching background in Science or Math; The ability to serve the school with public relations, marketing and strong leadership; Bachelor’s Degree required preferably in Business, Science or Math.

Lead Teachers (Full-and Part-time) and Director of Curriculum: By law, at least 75% of all Lead Teachers of K-5 will hold N.C. Licenses, 50% for middle and High School. The School plans to hire teachers already holding a NC License and/or to require teachers to obtain licensure through a lateral-entry program. Those teachers who do not hold NC License will have a proven background to teach the STEM curriculum.

Assistant Teachers/Paraprofessional: Tri-County Academy of STEM will require Assistant Teachers/Paraprofessionals to possess a minimum of a high school diploma or equivalent. Must have 1 year experience working with children; must be able to provide “at risk youth” student services in the classroom, including behavioral support.

Other Office Personnel: Must have excellent organization and interpersonal skills; possess knowledge of appropriate computer software programs; and the ability to exhibit office professionalism at all times.

Technical Support Specialist: Must have proficient knowledge of hardware & software implementation and configuration of LAN/WI-FI environments. The ability to troubleshoot and maintain stable network environment and working computers/laptops. Provide staff training when necessary.

Custodian and Cleaning Personnel: Experience in and knowledge of maintaining buildings and grounds to a level compatible with state mandated health and safety standards for schools.
ENROLLMENT

Provide a plan indicating how the school will reasonably reflect the 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-238.29F(g)(5))

Tri-County Academy of STEM will abide by the charter school legislation, G.S. 115C-238.29F(g)(5), as stated below:

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.

Tri-County Academy of STEM is located in Delco, NC where Columbus, Brunswick and Bladen Counties converge with Pender and New Hanover Counties less than 30 miles away.

Due to the diverse racial and demographics represented of the communities Tri-County Academy of STEM will serve, the school is expected to represent the broad demographic diversity of the community with a focus of at-risk youth, African-Americans, Latinos and Native Americans.

Marketing awareness of a new school of choice will begin with these efforts:

Market through advertisements in local papers; create and distribute marketing material; develop online presence; provide low cost STEM youth camp and afterschool programs through Men and Women United for Youth and Families, CDC; direct mailings to the 150+ collected addresses by Men and Women United for Youth and Families, CDC for their youth programs.

Target the following for distribution of marketing material:

Local Head Start and Early Childhood programs in Columbus, Bladen, Brunswick, Pender, and New Hanover counties; medical clinics; public agencies and bulletin boards; local merchants; other community based organizations; signage in front of school which sits on a main highway that connects Columbus, Brunswick and New Hanover Counties.
In the following tables, please list for each year and grade level, the numbers of students that the school reasonably expects to enroll. In addition, please indicate any plans to increase the grade levels offered by the school. Explain the analysis utilized to determine these specific enrollment figures.

The numbers in the following tables are projections, or estimates, and do not bind the State to fund the school at any particular level.

For the first two years the State will fund the school up to the maximum projected enrollment for each of those years as set forth and approved in the projected enrollment tables. However, in subsequent years, the school may increase its enrollment only as permitted by G.S. 115C-238.29D(d), that is, an increase of 20% per year based on the previous year’s enrollment. Any increase above 20% must be approved by the State Board of Education in accordance with G.S. 115C-238D(d).

Please accept our first year of enrollment projections of 55 students due to:

1. Current school building configuration will not allow for the minimum number of 65 students
2. The 1st year of performance will establish credibility and draw for parents to trust a new school for their child
3. The proposed new charter school is located in a rural tier 1 community which will require a rigorous marketing campaign to establish awareness and program offering of STEM. The new charter school will market to 3-5 surrounding counties in the vicinity of the proposed charter school. We believe once there has been sufficient marketing, open house events, and other community STEM programs made available to youth year round, plus the addition of a new school site, Tri-County Academy of STEM we will drastically increase projections of enrollment in the second school year. Tri-County Academy of STEM is unique and one of a kind to offer a STEM education beginning in the early years of education.
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>LEA 1</td>
<td>LEA 2</td>
<td>LEA 3</td>
<td>LEA 4</td>
</tr>
<tr>
<td>Kindergarten K</td>
<td>7</td>
<td>6</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>First 1</td>
<td>4</td>
<td>4</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Second 2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Third 3</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Fourth 4</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Fifth 5</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Sixth 6</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Seventh 7</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Eighth 8</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Ninth 9</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Tenth 10</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Eleventh 11</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Twelfth 12</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>LEA Totals</td>
<td>15</td>
<td>14</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Overall Total Enrollment</td>
<td>55</td>
<td>300</td>
<td>360</td>
<td>432</td>
</tr>
</tbody>
</table>

Official Charter Schools Application 2011
NC Department of Public Instruction
Office of Charter Schools
Online: www.publicschools.go/charter_schools/
## Budget: Revenue Projections 2012-13 through 2016-2017

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>State ADM Funds</td>
<td>$272,292.10</td>
<td>$1,513,735.85</td>
<td>$1,797,579.30</td>
<td>$2,163,490.99</td>
<td>$2,594,517.50</td>
</tr>
<tr>
<td>Local Per Pupil Funds</td>
<td>$79,558.45</td>
<td>$397,594.85</td>
<td>$504,571.23</td>
<td>$599,732.13</td>
<td>$718,118.42</td>
</tr>
<tr>
<td>Federal Funds</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>Grants*</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>Foundations*</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>Private Funds*</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>Other Funds*</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>TOTAL INCOME</td>
<td>$351,890.55</td>
<td>$1,911,330.70</td>
<td>$2,302,150.53</td>
<td>$2,763,223.03</td>
<td>$3,312,635.92</td>
</tr>
</tbody>
</table>

*If you are depending on these sources of funding to balance your operating budget, please provide documentation, such as signed statements from donors, foundations, etc., on the availability of these funds.*
SHOW CALCULATIONS FOR FIGURING STATE AND LOCAL DOLLARS FOR THE PROPOSED CHARTER SCHOOL

(OR Click on: Agency Website: Division of Financial Services, Reports and Statistics, Statistical Data)

The formula for figuring these allotments can be found in the Resource Guide.

<table>
<thead>
<tr>
<th>State &amp; Local Allotments/ADM For:</th>
<th>State plus</th>
<th>Local</th>
<th>Total/ADM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Columbus County:</td>
<td>$5,406.50</td>
<td>$853.29</td>
<td>$6,259.79</td>
</tr>
<tr>
<td>Bladen County:</td>
<td>$5,307.38</td>
<td>$1,023.98</td>
<td>$6,331.36</td>
</tr>
<tr>
<td>Brunswick County:</td>
<td>$4,525.04</td>
<td>$2,056.73</td>
<td>$6,581.77</td>
</tr>
<tr>
<td>New Hanover County:</td>
<td>$4,474.87</td>
<td>$2,631.77</td>
<td>$7,106.64</td>
</tr>
<tr>
<td>Pender County:</td>
<td>$4,480.24</td>
<td>$1,355.24</td>
<td>$5,835.48</td>
</tr>
</tbody>
</table>

**Year 1 Total: $351,690.55**
- Columbus County: $6,259.79 x 15 = $93,866.85
- Bladen County: $6,331.36 x 14 = $88,639.04
- Brunswick County: $6,581.77 x 10 = $65,817.70
- New Hanover: $7,106.64 x 8 = $56,853.12
- Pender County: $5,835.48 x 8 = $46,683.84

**Year 2 Total: $1,911,330.70**
- Columbus County: $6,259.79 x 110 = $688,576.90
- Bladen County: $6,331.36 x 80 = $506,508.80
- Brunswick County: $6,581.77 x 40 = $263,270.80
- New Hanover: $7,106.64 x 35 = $249,732.40
- Pender County: $5,835.48 x 35 = $204,241.80
<table>
<thead>
<tr>
<th>Year 3 Total:</th>
<th>$2,302,150.53</th>
</tr>
</thead>
<tbody>
<tr>
<td>Columbus County:</td>
<td>$6,259.79 x 120 = $751,174.80</td>
</tr>
<tr>
<td>Bladen County:</td>
<td>$6,331.36 x 85 = $538,165.60</td>
</tr>
<tr>
<td>Brunswick County:</td>
<td>$6,581.77 x 77 = $508,795.29</td>
</tr>
<tr>
<td>New Hanover:</td>
<td>$7,106.64 x 40 = $284,265.60</td>
</tr>
<tr>
<td>Pender County:</td>
<td>$5,835.48 x 38 = $221,748.24</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year 4 Total:</th>
<th>$2,763,223.12</th>
</tr>
</thead>
<tbody>
<tr>
<td>Columbus County:</td>
<td>$6,259.79 x 126 = $788,733.54</td>
</tr>
<tr>
<td>Bladen County:</td>
<td>$6,331.36 x 130 = $823,076.80</td>
</tr>
<tr>
<td>Brunswick County:</td>
<td>$6,581.77 x 90 = $592,359.30</td>
</tr>
<tr>
<td>New Hanover:</td>
<td>$7,106.64 x 45 = $319,799.80</td>
</tr>
<tr>
<td>Pender County:</td>
<td>$5,835.48 x 41 = $239,254.68</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year 5 Total:</th>
<th>$3,312,648</th>
</tr>
</thead>
<tbody>
<tr>
<td>Columbus County:</td>
<td>$6,259.79 x 156 = $976,527.24</td>
</tr>
<tr>
<td>Bladen County:</td>
<td>$6,331.36 x 151 = $956,035.36</td>
</tr>
<tr>
<td>Brunswick County:</td>
<td>$6,581.77 x 104 = $684,504.08</td>
</tr>
<tr>
<td>New Hanover:</td>
<td>$7,106.64 x 56 = $397,971.84</td>
</tr>
<tr>
<td>Pender County:</td>
<td>$5,835.48 x 51 = $297,809.48</td>
</tr>
</tbody>
</table>
### Budget (continued): Expenditure Projections 2012-13 through 2016-2017

**MAY BE AMENDED AS THE NEEDS OF THE SCHOOL DICTATES.**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PERSONNEL</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-----------</td>
</tr>
<tr>
<td>Total # of staff 13</td>
<td>$274,255</td>
<td>$897,280</td>
<td>$1,110,310</td>
<td>$1,260,920</td>
<td>$1,420,940</td>
</tr>
<tr>
<td>- Administrator(s) #1</td>
<td>$55,120</td>
<td>$177,840</td>
<td>$245,000</td>
<td>$253,760</td>
<td>$292,080</td>
</tr>
<tr>
<td>- Clerical #1</td>
<td>$20,000</td>
<td>$69,570</td>
<td>$71,760</td>
<td>$74,880</td>
<td>$74,880</td>
</tr>
<tr>
<td>- Teachers #4</td>
<td>$140,000</td>
<td>$438,000</td>
<td>$518,000</td>
<td>$620,000</td>
<td></td>
</tr>
<tr>
<td>- Guidance #0</td>
<td>$0</td>
<td>$36,400</td>
<td>$38,500</td>
<td>$41,000</td>
<td>$43,500</td>
</tr>
<tr>
<td>- Teacher Assistants #2</td>
<td>$40,000</td>
<td>$183,040</td>
<td>$235,000</td>
<td>$288,000</td>
<td>$350,000</td>
</tr>
<tr>
<td>- Custodian #5</td>
<td>$9,135</td>
<td>$29,760</td>
<td>$41,600</td>
<td>$44,720</td>
<td>$45,750</td>
</tr>
<tr>
<td>- Maintenance #0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>- Food Service #0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>- Bus Driver #2</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>- Other</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Technology #5</td>
<td>$10,000</td>
<td>$41,600</td>
<td>$42,640</td>
<td>$43,680</td>
<td>$44,720</td>
</tr>
<tr>
<td><strong>EMPLOYEE BENEFITS</strong></td>
<td>$30,000</td>
<td>$165,000</td>
<td>$198,000</td>
<td>$237,500</td>
<td>$217,770</td>
</tr>
<tr>
<td><strong>STAFF DEVELOPMENT</strong></td>
<td>$3,500</td>
<td>$19,250</td>
<td>$21,500</td>
<td>$23,720</td>
<td>$20,550</td>
</tr>
<tr>
<td><strong>MATERIALS AND SUPPLIES</strong></td>
<td>$2,500</td>
<td>$13,750</td>
<td>$16,600</td>
<td>$19,800</td>
<td>$15,000</td>
</tr>
<tr>
<td><strong>OFFICE SUPPLIES</strong></td>
<td>$1,500</td>
<td>$8,250</td>
<td>$9,900</td>
<td>$11,880</td>
<td>$10,000</td>
</tr>
<tr>
<td><strong>INSTRUCTIONAL EQUIPMENT</strong></td>
<td>$7,500</td>
<td>$41,250</td>
<td>$49,500</td>
<td>$58,400</td>
<td>$45,000</td>
</tr>
<tr>
<td><strong>OFFICE EQUIPMENT</strong></td>
<td>$1,500</td>
<td>$8,250</td>
<td>$9,900</td>
<td>$11,880</td>
<td>$9,500</td>
</tr>
</tbody>
</table>
## Budget (continued): Expenditure Projections 2012-13 through 2016-2017

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>TESTING MATERIALS</td>
<td>$3,000</td>
<td>$16,500</td>
<td>$19,800</td>
<td>$23,760</td>
<td>$15,375</td>
</tr>
<tr>
<td>INSURANCE</td>
<td>$5,500</td>
<td>$30,250</td>
<td>$35,000</td>
<td>$35,000</td>
<td>$35,000</td>
</tr>
<tr>
<td>UTILITIES</td>
<td>$3,000</td>
<td>$16,500</td>
<td>$19,800</td>
<td>$23,760</td>
<td>$26,150</td>
</tr>
<tr>
<td>RENT</td>
<td>$6,000</td>
<td>$120,000</td>
<td>$144,000</td>
<td>$172,800</td>
<td>$207,360</td>
</tr>
<tr>
<td>MAINTENANCE &amp; REPAIR</td>
<td>$1,200</td>
<td>$6,600</td>
<td>$7,920</td>
<td>$9,504</td>
<td>$10,000</td>
</tr>
<tr>
<td>TRANSPORTATION</td>
<td>$5,000</td>
<td>$27,500</td>
<td>$33,000</td>
<td>$39,600</td>
<td>$57,420</td>
</tr>
<tr>
<td>MARKETING</td>
<td>$2,500</td>
<td>$13,750</td>
<td>$16,500</td>
<td>$16,500</td>
<td>$16,500</td>
</tr>
<tr>
<td>FOOD/CATERERIA SUPPLIES</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>CONTRACTED SERVICES</td>
<td>$0</td>
<td>$80,000</td>
<td>$96,000</td>
<td>$100,000</td>
<td>$100,000</td>
</tr>
<tr>
<td><strong>TOTALS</strong></td>
<td><strong>$346,955</strong></td>
<td><strong>$1,454,130</strong></td>
<td><strong>$1,787,630</strong></td>
<td><strong>$2,046,124</strong></td>
<td><strong>$2,206,385</strong></td>
</tr>
<tr>
<td>Asset Type</td>
<td>Amount</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>----------------------------</td>
<td>--------</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cash on Hand</td>
<td>$0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Certificates of Deposit</td>
<td>$0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bonds</td>
<td>$0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Real Estate</td>
<td>$0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Capital Equipment</td>
<td>$0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Motor Vehicles</td>
<td>$0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Assets</td>
<td>$0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>$0</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**ADDITIONAL NOTES:**

Tri-County Academy of STEM believes in leveraging resources that serves as “partnership currency”. Men and Woman United for Youth and Families, CDC has established several relationships that have supported the vision and mission of this community organization. With that, Tri-County Academy of STEM has a commitment from a privately owned company to lend monthly support to the Tri-County Academy of STEM toward salaries, rent, school supplies and any other associated expenses until allocations are distributed.

**MARKETING PLAN (GS 115C.238.29F(g)(1-7))**

Marketing to potential students and parents is vital to the survival of a charter school. Reaching the full capacity for enrollment will be critical to obtain the necessary financial 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 GS 115C.238.29F(g) (1-7) carefully. Describe how the board will market the school to all populations (including various community ethnic groups, teachers and other employees, and the general public) to ensure that the school fully complies with the State Statute to mirror the diversity of the local education agency.

Tri-County Academy of STEM Charter School’s marketing plan will focus on developing a community awareness campaign of school offering to effectively reach target populations, teachers and other employees. The community awareness campaign will market the charter school through a variety of venues to build ongoing awareness:

- Media includes: online website, advertising on online bulletin boards, advertising with local newspapers, Kidsville magazine, direct emails.
- Provide flyers and brochures to local Head Start & Early Childhood Programs, clinics, merchants, community organizations, churches and libraries.
- Register and participate in local events and celebrations such as parades, street festivals, Founders’ day events for each township and local city, community events tables and booths.
Offer STEM camp week and afterschool program (Men and Women United for Youth and Families, CDC offer a summer camp program where 103 campers attended in the summer of 2011; currently 43 children attend the afterschool program.)

Direct mailing to all current and previous families who attended youth programs, fundraising and other events for Men and Women United for Youth and Families, CDC.

Tri-County Academy of STEM will market and continue ongoing awareness campaign throughout Columbus, Bladen, Brunswick, Pender, and New Hanover Counties. Pre- Application for school year 2013 will be accepted all year long.

SCHOOL AUDITS:

PROGRAM AUDITS: GS 115C-238.29E(b)(6)

Describe the procedure and method for evaluating the overall effectiveness of the proposed charter school program as related to the mission of the school.

In addition to the No Child Left Behind initiatives and the North Carolina ABCs of Public Education, Tri-County Academy of STEM Charter School will adopt the 5E Teaching, Learning, and Assessing Cycle – The 5E cycle (Engagement, Exploration, Explanation, Elaboration, and Evaluation) has been advocated by many curriculum designers and educational researchers as an effective planning and teaching paradigm that leads to improved student performance. Since its introduction in the 1980s, the 5E cycle has been extensively researched, with the results showing enhanced mastery of subject matter, increased ability in developing scientific reasoning, and positive increases in cultivating interest and attitudes about science and other domains of learning.

Tri-County Academy of STEM Charter School will collect and document the outcomes of the 5e Learning Cycle to evaluate the overall effectiveness of the school program. These outcomes will drive performance outcome indicators, school improvement plans, and overall effectiveness of presenting and facilitating learning in the classrooms. In addition, once a year an independent quality assurance consultant will serve to observe and audit findings through observation, parent feedback, Board members, faculty, and staff surveys, end of year testing outcomes, school reports, and progress as it pertains to school improvement or development goals, and specific strategic and operational goals. It will include both objective and subjective measures and summaries. This review will be delivered to the Board at the end of the fiscal/academic year.

FINANCIAL AUDITS: GS 115C-238.29F(f)(1)

Describe the procedure and method for conducting an independent financial audit for the proposed charter school. Give the name of the firm approved by the NC Local Government Commission (GCC) that will conduct the audit. Include the complete mailing address, telephone number and fax number.

Tri-County Academy of STEM Charter School will conduct an annual audit of the financial statements in accordance with standards for governmental and nonprofit organizations as it pertains to charter school requirements, and in accordance with the standards of the granting agencies for reporting program income and expenses. The audit will be conducted through an independent auditing firm with specialized education and experience in governmental and nonprofit auditing. The identified firm will be Stroud & Woodruff, LLP, Tony Stroud, CPA, PC, 3811 Peachtree Avenue, Suite 200, Wilmington, NC 28403, Main Number 910-793-5454 Fax 910-793-5567.
HEALTH AND SAFETY REQUIREMENTS (G.S. 115C-238.29F(a))
Describe how the school plans to adhere to the requirements of the health and safety laws and regulations of the federal and state governments. Address how the proposed charter school will meet the following requirements:

Safety: staff is trained annually to our current Emergency Plan. Evacuation plans with directional arrows are posted for easy viewing upon an emergency. Additionally, every teacher and staff member at Tri-County Academy of STEM receives American Red Cross CPR and First Aid training to maintain current certification. We follow all childcare code in handling hazardous materials, human by-products, and medication administration. Our building is required to be inspected for health and fire safety each year. Current inspections are on file. Tri-County Academy of STEM agrees to continue to adhere to all applicable federal, state, and local health and safety laws and regulations.

Immunization of Students Upon enrollment, the School currently requires all students to submit a copy of their most recently updated record of physical wellness and immunizations signed by their physicians.

Fire and Safety Regulations As an existing school, Tri-County Academy of STEM is required by law to have annual fire and safety inspections. Tri-County Academy of STEM has monthly fire drills and documented evacuation times. Tri-County Academy of STEM will continue to abide by all regulations.

Food Inspections Tri-County Academy of STEM does not plan to have a school cafeteria that is required to have food inspections. Kitchen area for the staff does comply with annual school building inspections.

Hazardous Chemicals In accordance with Childcare Code, all cleaning solutions and other hazardous chemicals are kept in locked cabinets. Teachers receive annual training in the appropriate handling of hazardous chemicals and potential spills to ensure compliance with regulations.

Bloodborne Pathogens All teachers receive orientation information regarding, and a kit to prevent, transmission of bloodborne pathogens. All staff members receive American Red Cross CPR and First Aid Training to ensure up-to-date certification.

Diabetes care plans All teachers receive orientation information regarding Diabetes care from the school’s Registered Nurse consultant.

Providing students in grades 9-12 with information on how a parent may lawfully abandon a newborn
Tri-County Academy of Stem will provide such information through the Registered Nurse consultant as a required informational meeting to students of grades 9-12

Providing parents and guardians with information about:
- Meningococcal meningitis and influenza and their vaccines at the beginning of each year
- Cervical cancer, cervical dysplasia, human papillomavirus, and the vaccines available to prevent diseases

Tri-County Academy of Stem will provide such information through the Registered Nurse consultant and during such times as Open House, School Registration, and /or Parent Teacher conferences.
CIVIL LIABILITY AND INSURANCE (G.S. 115C-238.29F(c))

State the proposed coverage for:

Comprehensive General Liability
Officers and Directors/Errors and Omissions
Property Insurance
Motor Vehicle Liability
Bonding
  Minimum amount:
  Maximum amount:
Other

One Million Dollars ($1M) per occurrence
One Million Dollars ($1M) per occurrence
Full replacement cost coverage
One Million Dollars ($1M) per occurrence
Fidelity Bonds
No less than Two hundred and fifty thousand dollars ($250,000.00)
To Be Determined
Workers’ Compensation

TRANSPORTATION (G.S. 115C-238.29F(h))

Describe in detail the transportation plan that will ensure that no child is denied access to the school due to lack of transportation.

Men and Women United for Youth and Families, CDC currently serves students from five different counties within a 30 mile radius. Men and Women United for Youth and Families, CDC understands transportation might be an obstacle for some students outside of our LEA who would like to attend the Tri-County Academy of STEM Charter School. Tri-County Academy of STEM will partner with Men and Women United for Youth and Families, CDC to expand their services to provide transportation to serve families who desires access to Tri-County Academy of STEM education for their child.

Additionally, Tri-County Academy of STEM will plan to communicate with the Columbus County School system about the possibility of partnering with them to provide access for local students through the school system’s bus services, understanding that this would likely require reimbursement for the transportation expense.

Tri-County Academy of STEM will continue to be proactive and creative to provide transportation to eliminate transportation as a barrier to attend school.
FACILITY (GS 115C-238.29D(c))

Describe the facility in which the school will be located. Include information on how the site is appropriate to your mission and instructional program. 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 facility and has provided a valid Certificate of Occupancy for Educational use to The Office of Charter Schools.

Name of the facility (if known): N/A

Address: 44 Dream Avenue

City/State/Zip: Delco, NC 28451

Description of the Facility:
Total square feet: 2
Number of Classrooms: 6
Number of Restrooms: 4
Other Rooms: 2 computer labs, 1 Records room, 1 Receptionist office, Lobby, Finance office, Director's office,

Auditorium: N/A
Gymnasium: N/A
Music Room: N/A
Art Room: N/A
Laboratory: N/A

Ownership: □ Fee Simple or ✓ Lease

If the facility is to be leased, provide the following information:
(a) Term of the Lease: Annual
(b) Type of Lease: Long Term w/30 day notice
(c) Rent: $500 per month

Name of Landlord: Community Support Agency

Address: P.O. Box 465

City/State/Zip: Delco, NC 28436

Phone: 910.655.0698 Fax: 910.655.0611

Document inspections for the following:
(a) Fire: 10/2011
(b) Safety: 10/2011
(c) Handicapped accessibility? Yes
Describe how the maintenance will be provided for the facility.

Tri-County Academy of STEM intends to hire a full time custodian/maintenance person to address daily cleaning, trash removal, disinfecting bathrooms, vacuuming, wiping glass doors, glass receptionist window and maintaining lights, electricity, plumbing, and filters as needed. Maintenance also includes keeping up the grounds and maintaining safety of the property.

Describe the method of finding a facility if one is not readily available at this time including information about the spatial needs of the school to best suit your adopted educational program and instructional methodologies. Does the applicant have a facility contingency plan should their initial efforts not be successful?

Tri-County Academy of STEM is in current negotiations with a private company to obtain and lease an 18,300 square foot building (Appendix F) to lease long term beginning in the school year of 2013, if Tri-County Academy of STEM receives NC charter. The property sits on 12 acres located in Columbus County close to current building, with room to grow. Long term plans are to expand the grounds to offer playground, Basketball courts, and picnic area with shelter.
VIII. LEA IMPACT STATEMENT

Pursuant to G.S. 115C-238.29B(d), the charter school applicant must submit a copy of the application to the LEA in which the school will locate within seven days of the submission of the application to the Office of Charter Schools. The LEA may then submit information or comment directly to the Office of Charter Schools.

Please attach to this application a return receipt, or other documentation, verifying the applicant's timely submission of a copy of this application to the LEA.

I, Devoria K. Berry, the responsible agent for Tri-County Academy of STEM Charter School, pledge to submit to Columbus County Schools a complete copy of this application by November 16, 2011 deadline established by the North Carolina Department of Public Instruction and, upon its delivery, agree to forward documentation of such to the NC DPI upon request.

Signature of responsible Agent

Date 11/9/11
IX. APPENDICES (OPTIONAL)

You may include numbered and indexed appendices to provide additional information that you believe will assist the State Board of Education in the consideration of your application.

Appendix A: Men & Women United for Youth and Families, CDC Program Booklet enclosed on back cover

Appendix B: STEM Articles
  ➢ NC State Looks to transform Elementary STEM teaching
  ➢ State Education Rankings: the Best and Worst for Math and Science
  ➢ More Focus on Math, Science Education Vital to Economic Progress
  ➢ STEM Education and Jobs: Declining Numbers of Blacks Seen In Math, Science

Appendix C: Director & Teacher Resumes

Appendix D: Current School Inspection

Appendix E: Current School Fire & Building Inspection

Appendix F: New Site Building Plan
N.C. State looks to transform elementary STEM teaching

WRAL Tech Wire STEM News

RALEIGH, N.C. – A five-year study at N.C. State University could help reverse the nation's decline in production of scientists, engineers, and mathematicians.

Project ATOMS (Accomplished Elementary Teachers of Mathematics and Science) is fueled by a $3.1 million grant from the National Science Foundation. The goal is to improve the ability of teachers to provide high-quality science and mathematics education for all students.

Dr. Ellen McIntyre, head of N.C. State's Department of Elementary Education and the primary investigator for the grant, said the study shines a spotlight on how teacher-education programs prepare teachers for careers in the classroom. Furthermore, she added, this work will provide elementary school students with better experiences in science and mathematics which could be a way to increase interest in science careers.

"Without a firm foundation in elementary school, we can’t get young people interested in entering science, technology, engineering and mathematics fields, the so-called STEM disciplines," McIntyre said. "But we realize, too, that elementary school teachers need to have stronger knowledge of science and math subjects and need to be better able to successfully teach this content to young children and get them excited about science and math."

The multi-part study will examine N.C. State elementary education majors' knowledge and understanding of science and math content, and how they use that knowledge to be effective in the classroom. Then, after the N.C. State students graduate, the study will follow them into their new workplaces to observe how effective their teaching style and methods are when compared with teachers who haven't gone through the same teacher preparation.

"Elementary school teachers are generally highly motivated and love children, but they tend to be mediocre or weak in science," McIntyre noted.
McIntyre said N.C. State requires elementary-education students to take rigorous STEM classes — including calculus — as part of their general education requirements. Added McIntyre, “thanks to assistance from collaborators across campus, including those from the mathematics and physics departments and our engineering and design colleges, some of these classes were developed especially with elementary school teachers in mind.”

If the project is deemed successful by the study results, McIntyre believes it should be easily replicated and scaled by other elementary teacher preparation programs.

"We want to find out if a program like this prepares teachers better in STEM fields, and if it makes a difference in elementary student learning and performance," McIntyre closed. "If it works, it could become a model for training elementary school teachers."

Get the latest news alerts: Follow WRAL Tech Wire at Twitter.

Copyright 2011 WRAL Tech Wire. All rights reserved.
Tags: STEM education, NCSU

STEM Education

STEM News is generated through a collaborative effort between the NC STEM Community Collaborative, MCNC, and WRAL Tech Wire. To submit story ideas, please email WTW Editor Rick Smith rsmith@wral.com or Noah Garrett noah@thinkncg.com.
State Education Rankings: The Best And Worst For Math And Science

In recently released rankings of how states' primary education systems are preparing students for careers in engineering, Massachusetts, Minnesota and New Jersey top the list. Mississippi trails as the worst in the country, following West Virginia and Louisiana.

The SERI was developed by Susan Wite from the Statistical Research Center at the American Institute of Physics and physicist Paul Cottle of Florida State University.

The SERI score given to each state is on a scale of 1 to 5 and reflects how well states perform and allow opportunities for success in physics and math education and teacher qualifications.

The numbers below reveal that few states are performing at high levels, and most are poorly preparing students for science, technology and engineering.

According to a statement last week, Cottle said that although the SERI scores do not compare states to schools' performances in other countries, even the American leader -- Massachusetts -- would struggle to compete with countries like China or Singapore.

For years, the U.S. has lagged behind other countries in math and science. A 2009 study showed that American students ranked 25th among 34 countries, behind nations like China, Singapore, South Korea, Hong Kong and Finland.

## State Rankings for Math and Science Education

<table>
<thead>
<tr>
<th>Rank</th>
<th>State</th>
<th>SERI</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Massachusetts</td>
<td>4.82</td>
</tr>
<tr>
<td>2</td>
<td>Minnesota</td>
<td>4.06</td>
</tr>
<tr>
<td>3</td>
<td>New Jersey</td>
<td>4.04</td>
</tr>
<tr>
<td>4</td>
<td>New Hampshire</td>
<td>4.01</td>
</tr>
<tr>
<td>5</td>
<td>New York</td>
<td>3.94</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Position</th>
<th>State</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>Virginia</td>
<td>3.73</td>
</tr>
<tr>
<td>7</td>
<td>Maryland</td>
<td>3.57</td>
</tr>
<tr>
<td>8</td>
<td>Connecticut</td>
<td>3.28</td>
</tr>
<tr>
<td>9</td>
<td>Indiana</td>
<td>3.28</td>
</tr>
<tr>
<td>10</td>
<td>Maine</td>
<td>3.24</td>
</tr>
<tr>
<td>11</td>
<td>Florida</td>
<td>3.13</td>
</tr>
<tr>
<td>12</td>
<td>Illinois</td>
<td>3.08</td>
</tr>
<tr>
<td>13</td>
<td>South Dakota</td>
<td>3.08</td>
</tr>
<tr>
<td>14</td>
<td>Wisconsin</td>
<td>3.06</td>
</tr>
<tr>
<td>15</td>
<td>Colorado</td>
<td>3.04</td>
</tr>
<tr>
<td>16</td>
<td>Kansas</td>
<td>3.00</td>
</tr>
<tr>
<td>17</td>
<td>Kentucky</td>
<td>3.00</td>
</tr>
<tr>
<td>18</td>
<td>Vermont</td>
<td>2.93</td>
</tr>
<tr>
<td>19</td>
<td>Georgia</td>
<td>2.88</td>
</tr>
<tr>
<td>20</td>
<td>Washington</td>
<td>2.86</td>
</tr>
<tr>
<td>21</td>
<td>Utah</td>
<td>2.85</td>
</tr>
<tr>
<td>22</td>
<td>Pennsylvania</td>
<td>2.80</td>
</tr>
<tr>
<td>23</td>
<td>Tennessee</td>
<td>2.67</td>
</tr>
<tr>
<td>24</td>
<td>Ohio</td>
<td>2.64</td>
</tr>
<tr>
<td>25</td>
<td>Delaware</td>
<td>2.60</td>
</tr>
<tr>
<td>26</td>
<td>Michigan</td>
<td>2.60</td>
</tr>
<tr>
<td>27</td>
<td>Oregon</td>
<td>2.58</td>
</tr>
<tr>
<td>28</td>
<td>Wyoming</td>
<td>2.58</td>
</tr>
<tr>
<td>29</td>
<td>Montana</td>
<td>2.53</td>
</tr>
<tr>
<td>30</td>
<td>Idaho</td>
<td>2.47</td>
</tr>
<tr>
<td>31</td>
<td>Texas</td>
<td>2.45</td>
</tr>
<tr>
<td>32</td>
<td>North Dakota</td>
<td>2.40</td>
</tr>
<tr>
<td>33</td>
<td>Missouri</td>
<td>2.39</td>
</tr>
<tr>
<td>34</td>
<td>California</td>
<td>2.38</td>
</tr>
<tr>
<td>35</td>
<td>Rhode Island</td>
<td>2.38</td>
</tr>
<tr>
<td>36</td>
<td>North Carolina</td>
<td>2.34</td>
</tr>
<tr>
<td>37</td>
<td>Hawaii</td>
<td>2.29</td>
</tr>
<tr>
<td>38</td>
<td>Iowa</td>
<td>2.25</td>
</tr>
<tr>
<td>39</td>
<td>Alaska</td>
<td>2.20</td>
</tr>
<tr>
<td>40</td>
<td>South Carolina</td>
<td>2.20</td>
</tr>
<tr>
<td>41</td>
<td>Arkansas</td>
<td>2.14</td>
</tr>
<tr>
<td>42</td>
<td>Oklahoma</td>
<td>2.01</td>
</tr>
<tr>
<td>43</td>
<td>Nebraska</td>
<td>1.97</td>
</tr>
<tr>
<td>44</td>
<td>Nevada</td>
<td>1.93</td>
</tr>
<tr>
<td>45</td>
<td>Arizona</td>
<td>1.91</td>
</tr>
<tr>
<td>46</td>
<td>New Mexico</td>
<td>1.72</td>
</tr>
<tr>
<td>47</td>
<td>Alabama</td>
<td>1.60</td>
</tr>
<tr>
<td>48</td>
<td>Louisiana</td>
<td>1.59</td>
</tr>
<tr>
<td>49</td>
<td>West Virginia</td>
<td>1.58</td>
</tr>
<tr>
<td>50</td>
<td>Mississippi</td>
<td>1.11</td>
</tr>
</tbody>
</table>
More Focus on Math, Science Education Vital to Economic Progress

Posted: 10/27/11 01:44 PM ET
Follow

Co-written by Mrinalini C. Rao

A great deal of attention recently has been focused on an issue of real importance to the future of our nation -- the need to train more undergraduates, especially blacks, Hispanics and women, in science, technology, engineering and mathematics (STEM) fields. We cannot envision a sustained U.S. economic recovery in our increasingly competitive world without a steady supply of highly trained professionals in the STEM disciplines, nor can we imagine full economic equality and opportunity unless the diversity of STEM professionals mirrors that of our nation as a whole. We congratulate both the Obama administration and the Association of American Universities (AAU) for highlighting this issue. Given the differential achievement gaps and escalating poverty rates among racial and ethnic minorities: How will the nation respond?

The administration has put STEM education on the front burner through a series of reports, and has emphasized the importance of higher education in eliminating disparities among those in the STEM fields. A Commerce Department report released last month found underrepresentation of blacks and Hispanics in STEM fields. "Educational attainment may affect equality of opportunity in these critical, high-quality jobs of the future," the report said. "...by increasing the numbers of STEM workers among currently underrepresented groups through education we can help ensure America's future as a global leader in technology and innovation." This puts significant responsibility for solving this problem on the shoulders of higher education, and it is a challenge we are eager to meet.

For example, there is the AAU's announcement, a few months ago, of a five-year initiative to improve STEM education at the undergraduate level. In announcing the initiative, the AAU noted the disturbing fact that more than 40 percent of entering college freshmen who planned to major in STEM-related fields changed to non-STEM majors by graduation. If we are to make progress in producing more professionals in science and technology, it is imperative that we reduce this attrition and support students who want a career in the STEM disciplines so they graduate with a STEM degree. We also need highly trained and inspirational K-12 science and math teachers, which is why initiatives such as the Association of Public and Land-grant Universities (APLU)'s ongoing efforts to prepare a new generation of top science and math teachers are so important.

Much of the responsibility for making progress rests with individual colleges and universities, as our mission includes recruiting, educating and graduating the STEM professionals of the future. At the University of Illinois at Chicago we have long recognized these issues and have many initiatives in place with proven results. We want to share some highlights in hopes that they will stimulate a deep interest in the topic and a sharing of ideas and solutions.

We were greatly honored earlier this year when UIC's Women in Science and Engineering program was one of only four organizations and 11 individuals across the U.S. to receive the 2011 Presidential Award for Excellence in Science, Mathematics and Engineering Mentoring. The awards, administered by the National Science Foundation (NSF), recognize the role mentoring plays in the academic and personal development of students studying science or engineering -- particularly students in groups underrepresented in those fields. The WISE program founded in 2002, works to increase participation of women and girls in science, technology, engineering and mathematics.
UIC's WISE program has built a strong network with community organizations and local businesses to attract grade school girls to math and science. A peer mentoring program supports undergraduate women majoring in math and the sciences. We've reached out to literally thousands of girls and young women -- from grade school through college -- to spark their interest in the STEM fields.

And we're seeing results. For example, at UIC our most recent six-year graduation rates for female STEM majors rose in two years to 50 percent from 43 percent among African Americans, to 48 percent from 46 percent among Latinas, and to 66 percent from 53 percent among whites. More than 1,300 students in grades 6-12 received online mentoring from 225 science, technology, engineering and math professionals.

Other programs extend to faculty. Women in Science and Engineering System Transformation (WISEST), was established to increase the number and leadership status of women and underrepresented minority faculty members in science and engineering at UIC. Since 2006, the number of female tenure-system faculty members in the 11 STEM disciplines has increased to 51 from 33. The number of underrepresented minority women has risen to eight from four. WISEST has supported start-up costs for 14 new faculty members and a 15th starts in January. In an effort to ensure that the transition from graduate student to faculty is robust, UIC WISEST completed a highly successful postdoctoral program for underrepresented STEM women, for one cohort. Resources to make such programs widely available should be an important priority.

While progress is being made at UIC and at many other universities, we have much work ahead of us. A 2010 study by the American Association of University Women, citing NSF statistics, said that in 2007, colleges and universities awarded 138,874 STEM bachelor's degrees to men and just 88,371 to women, even though women made up the majority of U.S. undergraduates.

Elementary, middle and high schools are critically important because that is where students' career paths are often identified, their ambitions are nurtured, and they obtain fundamental knowledge necessary for success at the university level. At UIC and many other universities, colleagues are working to improve the quality of instruction and create opportunities in the STEM fields for young students.

Vicki Chou, dean of the UIC College of Education, is principal investigator for a four-university, $16 million Teacher Quality Partnership grant from the U.S. Department of Education. The five-year project, now in its third year, will reform teacher training to ensure deep, relevant knowledge in math, science and reading. Maria Varelas, professor of curriculum and instruction, has co-led National Science Foundation grants totaling more than $6 million with colleagues from biology, chemistry, earth science, environmental science and physics for teacher preparation. Donald Wink, professor of chemistry, is a leader of the NSF-funded Chicago Transformation Teacher Institutes. In partnership with four other Chicago-area universities and in conjunction with Chicago Public Schools, Dr. Wink and UIC colleagues are developing programs to improve high school math and science education. Programs such as the Science Olympiad, based in suburban Chicago, have had a profound influence on thousands of young people in all 50 states.

To help increase representation of blacks and Hispanics in STEM fields, student groups in UIC's College of Engineering, such as the National Society of Black Engineers (NSBE) and the Society of Hispanic Professional Engineers (SHPE), are active in trying to attract and retain students in engineering programs. NSBE is working with the city of Chicago's community college system to encourage transfer students to consider engineering programs. This past April, UIC-SHPE co-hosted the society's regional conference, attracting almost 400 Hispanic undergraduate and graduate students and more than 75 Hispanic high school students from the Chicago Public Schools.

In 2008, UIC partnered with the Noble Network of Charter Schools to create UIC College Prep near our campus. UIC faculty members help develop the curriculum, with a focus on the health sciences (UIC has a full complement of health science colleges including medicine, dentistry, nursing, pharmacy, applied health sciences, public health, and social work).

The school has gotten off to a tremendous start. For example, all public school students in Chicago take an ACT-developed assessment test in eighth grade, called EXPLORE, and then take the PLAN test at the beginning of their sophomore year. The increase in scores for UIC College Prep students from the EXPLORE to the PLAN test were the highest in the city. Last year, UIC College Prep had the lowest student attrition among Chicago
Public Schools. Each year in the City of Chicago Math League, more than two dozen Chicago public high schools spread over three divisions compete in algebra, geometry and pre-calculus. The schedule features four division-only contests and a citywide final. Fielding a rookie team with no seniors, UIC College Prep's "Mathletes" completed a successful inaugural campaign by winning Division C for the 2010-11 academic year.

Each of UIC's health science colleges helps develop curriculum and hosts the school's students on campus. When the students visited the College of Nursing this year, they learned how to use an automated external defibrillator. UIC faculty and students visit the high school to present case studies and lessons. Our faculty members and students, including students in the WISE program, serve as mentors and offer after-school tutoring.

What this leads to are students who are not only well-prepared academically, but who have an idea of the career opportunities available in the sciences and mathematics and what it takes to succeed at the university level. It's a formula for our shorthand definition of UIC's mission: "Access to excellence and success." Across the nation and especially in the STEM disciplines, we need more of these innovative approaches and we need to evaluate their effectiveness in realizing the goal.

Paula Allen-Meares is Vice President of the University of Illinois and Chancellor of the University of Illinois at Chicago (UIC). Mrinalini (Meena) Rao is former Vice President for Academic Affairs for the University of Illinois and Professor of Physiology and Biophysics at UIC.

This Blogger's Books from amazon.com

Cross-Cultural Research (Pocket Guides to Social Work Research Methods) by Jorge Delva, Paula Allen-Meares, Sandra L. Momper

PHOTO GALLERIES

- Sex Ed Dolls

FOLLOW US

Connect with your friends

STEM Education And Jobs: Declining Numbers Of Blacks Seen In Math, Science

With black unemployment reaching historic levels, banks laying off tens of thousands and law school graduates waiting tables, why aren't more African-Americans looking toward science, technology, engineering and math – the still-hiring careers known as STEM?

The answer turns out to be a complex equation of self-doubt, stereotypes, discouragement and economics – and sometimes just wrong perceptions of what math and science are all about.

The percentage of African-Americans earning STEM degrees has fallen during the last decade. It may seem far-fetched for an undereducated black population to aspire to become chemists or computer scientists, but the door is wide open, colleges say, and the shortfall has created opportunities for those who choose this path.

STEM barriers are not unique to black people. The United States does not produce as high a proportion of white engineers, scientists and mathematicians as it used to. Women and Latinos also lag behind white men.

Yet the situation is most acute for African-Americans.

Black people are 12 percent of the U.S. population and 11 percent of all students beyond high school. In 2009, they received just 7 percent of all STEM bachelor's degrees, 4 percent of master's degrees, and 2 percent of PhDs, according to the National Center for Education Statistics.

From community college through PhD level, the percentage of STEM degrees received by blacks in 2009 was 7.5 percent, down from 8.1 percent in 2001.

The numbers are striking in certain fields. In 2009, African-Americans received 1 percent of degrees in science technologies, and 4 percent of degrees in math and statistics. Out of 5,048 PhDs awarded in the physical sciences, such as chemistry and physics, 89 went to African-Americans – less than 2 percent.

Several factors are cited by scientists, educators and students. One is a self-defeating perception that STEM is too hard. Also mentioned are a lack of role models and mentors, pressure to earn money quickly, and discouraging academic environments.

The impact reaches beyond the black community as America struggles to produce enough scientists to prosper in a world ruled by technology.

"White men make up less than 50 percent of the U.S. population. We're drawing (future scientists) from less than 50 percent of the talent we have available," says Mae Jemison, the first black woman astronaut, who has a medical degree and a bachelor's in chemical engineering.

"The more people you have in STEM," she says, "the more innovations you'll get."
Jemison says the problem begins for children of all backgrounds in grade school, where they are usually asked to memorize facts out of a book instead of satisfying their natural curiosity through experiments and exploring. She also says many primary school science teachers took little science in college.

Allen Gordon has been teaching math in Oakland, Calif., for seven years. He always tries to apply real-word situations to his lessons – coupons, compound interest on bank accounts, album sales.

"If math and science seem boring and of no use on a primary education level, who would want to pursue it while in college?" he says. "Especially when you don't see many, if any, black men or women teaching."

"Math and science are not something that black men and women sit around and pontificate about at home, dinner parties, the sports bar, hair salon, et cetera," he says. "It doesn't fit into their social idea of status."

"Let's face it, there is no glory in saying, 'I teach math or science.' Career school teachers still seem to be very proletarian."

Even some of Gordon's fellow teachers ask how he can teach math, saying, "Funny, you don't look like the nerd type."

That's a stereotype Jemison knows well.

"The media images you see of scientists are older white males who are goofy or socially inept in some way," she says. "That's the mad scientist, the geek" – and it doesn't include role models for young black and Hispanic students.

Jemison, who watched "Star Trek" growing up, declines to call the black female character Lieutenant Uhura an inspiration, but the fictional space traveler did affect her.

"Her character was really an affirmation that my assumptions about going into space were shared by others, and that everyone had a right and a role to play. So that affirmation, for a little kid growing up, it's an image of possibilities."

Growing up in Murfreesboro, Tenn., Christopher Smith used to tutor fellow black students at his high school.

The students would often start solving a complicated math problem by doing everything right. "Then they would say, 'I don't know what I'm doing!'" recalls Smith, now pursuing a PhD in biomedical engineering at Johns Hopkins University.

He thinks some African-Americans psyche themselves out of STEM.

"Today I talk to friends back home, and they say, 'I wouldn't be able to do good in college anyway.' A lot of it is just confidence," Smith says. "If people convince you that science and math is harder than everything else, and you already have low self-esteem, maybe that's one reason there are so few black scientists."

"Few" is a generous term in Smith's field of biological and biomedical sciences, where 6,957 PhDs were awarded in 2009. Only 88 went to black men – that's 1 percent. (176 went to black women.)

LaMont Toliver also sees a problem with what he calls "self-doubt." He is director of the University of Maryland Baltimore County's Meyerhoff Scholars Program, a national leader in increasing STEM diversity.

"Advanced placement courses, calculus, chemistry, these are hard courses," Toliver says. "Some of them believe that they just can't do it. Then you couple that with a lack of encouragement."
"If we were more supportive as a community, as parents and providing guidance and mentoring at an early age, then more African-American students would do it."

Money is another factor in the STEM disparity. It takes many years after college to get the advanced degrees needed to become leaders in math and science fields – university professors, directors of research labs, heads of engineering departments – and some black students can't afford to wait that long.

Before one recent New Year's Eve, Smith, the Johns Hopkins student, was debating whether to purchase a bus ticket from Baltimore to New York City to hang out with friends. It was a tough decision – the ticket cost $37.

Smith, 27, received a fellowship for black scientists this year from Merck and the United Negro College Fund. As he works toward his PhD, Smith lives on a salary and stipend of about $25,000 per year.

Like many black students, Smith comes from modest means. His mother was a homemaker with a high school diploma; his father earned a GED, became an electrician and eventually owned a business.

"I get paid to go to school, so I don't want to complain," Smith says.

But he's still several years away from completing his PhD, and he's tired of agonizing over a $37 bus ticket. Even after he gets that degree, he'll need to do a year of post-doctoral study. "If I stay here at Hopkins" for post-doc work, he says, "I'll make the same or less than a city sanitation worker."

At each stage of science education, many black students feel pressure to stop studying and start earning real money. Smith, who has an undergraduate degree from MIT, says he could be making as much as $115,000 per year in a corporate job.

Yet it's hard to advance far in science without at least a master's, if not a doctorate.

Joseph Francisco, a black chemistry professor at Purdue and past president of the American Chemical Society, has a PhD from MIT. He says his undergrad students are always telling him, "I got to think about a job."

"With first-generation college students, there is enormous pressure," Francisco says. "Without a mentor who can tell you about what to expect beyond undergrad, who can explain what are the opportunities after a postgraduate degree, they just stop at a bachelor's degree."

Francisco mentions another source of pressure affecting black STEM students: isolation.

In 1981, Francisco was studying at MIT when he heard about a national organization for black chemists. He went to its convention, in Chicago.

"It was incredible," Francisco remembers. "I remember having the feeling, 'you are not alone.' That sense of isolation can be powerful."

It was different when he was growing up on the black side of segregated Beaumont, Texas. He was raised by his grandmother, who had a third-grade education, and his grandfather, who laid concrete pipes. There was a black pharmacist in his neighborhood, and Francisco worked part-time in the shop. There was a black doctor, teachers, a college professor.

That changed when he went to the University of Texas and then MIT, where there were few black faces.

In a 2010 Bayer Corp. survey of 1,226 women and underrepresented minority chemists and chemical engineers, 40 percent said they were discouraged from pursuing a STEM career. Sixty percent said college was where most of the discouragement happened.
Jemison, the astronaut, says that while at Stanford, "some professors were not that thrilled to see me in their classrooms."

"Stereotypes impact the people who have an opportunity to influence your career," she says. "They don't see you as a peer."

After receiving his PhD, Francisco had several job offers. He chose Wayne State University in Detroit, and would later become president of the National Organization for the Professional Advancement of Black Chemists and Chemical Engineers.

"I saw an opportunity at Wayne State to do good science in a supportive place that gave me the flexibility to make a contribution to the community," he says. "To give something back, to a black community."

In the world of atoms and numbers, does the color of the person who studies them really matter?

Many of America's technology giants say, yes. Merck has funded tens of millions of dollars in United Negro College Fund scholarships. Bayer has a special focus on recruiting and promoting minorities. Technology giants such as Boeing, General Electric and Xerox support organizations dedicated to raising black STEM participation.

Their motivation is simple math. If bright and capable students' talents go undeveloped, "this represents a loss for both the individual and society," the National Science Board said in a 2010 report.

The report said that after the Soviet Union beat America into space with Sputnik, the U.S. was inspired to educate a new generation of innovators. This national urgency faded by the 1970s, the report said, and was replaced by complacency.

Some 16 percent of all U.S. undergraduates major in natural science or engineering, compared with 25 percent in Europe, 38 percent in South Korea and 47 percent in China, the report said.

To reverse this decline, the report said America must "cast a wide net to identify all types of talents and to nurture potential in all demographics of students."

Jemison identifies another incentive. Even though scientists may use the same methodology, "what topics they choose to research, even the interpretation of facts or what they choose to look at is influenced by experience."

"So many times it's the diversity of thought and perception and experience base that starts to make the difference in the problems you research and the solutions you consider," she says.

"It's a much more robust reason for diversity that just the head count."

Jesse Washington covers race and ethnicity for The Associated Press. He can be reached at or jwashington(at)ap.org. http://www.twitter.com/jessewashington

Online:

Mae Jemison: http://www.drmae.com

Meyerhoff Scholars Program: http://www.umbc.edu/meyerhoff

National Science Board report: http://1.usa.gov/nwHbkU

PROFESSIONAL EXPERIENCE

Community Support Agency, Delco, NC 2010-Present
Chief Operations Manager

Center for Alternative Resources, Cary, NC 2009-2010
Southeast Coastal Regional Director
Regional oversight of Day Treatment Centers

Brunswick County Schools, Leland, NC 2005-2009
High School Science Teacher – Earth Science, Biology, Physical Science, Brunswick County Academy
Alternative school offers unique programs to prepare students for redirection and success in the global society.
21st Century Teacher – Brunswick County
AVID Summer Institute, Atlanta Ga. 2007

Savvier Technologies / Consultant Cary, NC 2002-2005
- Strategic development and planning – operations
- New Business and Marketing development

International Business Machines Corporation, RTP, NC 2001-2002
Executive Consultant – Senior Project Manager – Worldwide Deployment Team
The scope of the project included Supply Chain Management, Content Management, ePayment Process, Customer Relations Management, and Risk Management Mitigation. Assigned to IBM-Japan, Tokyo as the Lead Project Manager for the World Wide Team to successfully deploy an online “configure to order” service product.

OAO Corporation, Durham, NC 1999-2001
Director, eCommerce Business Solutions

International Business Machines Corporation, RTP, NC 1983-1999
Multiple positions: Senior Project Manager – eBusiness; Business Analyst; Project Manager – LAN Network Management; Software Engineer – Software Application Development

NON PROFIT

Soundchangers in partnership with Urban Ministries Inc. publications was nationally recognized by The Hampton Minister’s Conference of 2005 for Urban Ministry Awareness – Recapture the Youth

Founder, Choices4teens, Inc. (CHOICES), Apex, N.C. 2002
CHOICES - a spiritual and life enrichment program for youth

EDUCATION
- Bachelor of Science, Tennessee State University, Nashville, TN
- eCommerce Executive Business Program, University Of North Carolina, Chapel Hill, NC
- Masters in Arts in Ministry, Justice Fellowship College of Theology, Raleigh NC
429 Dickson Road
Riegelwood, NC 28456

STEPHANIE HENRY
(910) 231-6688, Cell
(910) 655-8529, Home

OBJECTIVE: To obtain an Assistant Principal position

EDUCATION:
M. A., Administration, May 1994
Fayetteville State University
Cumulative GPA: 4.0

B.S., English Education, May 1981
Fayetteville State University

RELEVANT EXPERIENCE:
Acme Delco Middle School, Delco, NC
Teacher, September 2007 – present
- Maintained positive communication with partnership
  teacher, administration, students, and parents
- Planned and conducted lessons and activities in reading,
  writing
- Created short-range and long-range lesson plans
- Managed classroom behavior
- Participated in various workshops and conferences for staff
  development

East Bladen High School, Elizabethtown, NC
Teacher, January 1984 – September 2007
- Maintained positive communication with partnership
  teacher, administration, students, and parents
- Planned and conducted lessons and activities in reading,
  writing
- Created short-range and long-range lesson plans
- Managed classroom behavior
- Participated in various workshops and conferences for staff
  development

Bladen Community College, Elizabethtown, NC
Part-time Instructor, August 1982 – December 1983 and January
2002 – Present
- Early Childhood Education
- English Education

Hallsboro Elementary School, Hallsboro, NC
Teacher Assistant, January 1982 – June 1982
Christopher A. Graham

E-mail: kring2g@yahoo.com
1326 Clancy Dr. □ Leland, NC  28451 □ (910) 399-7694

Objective:  To obtain a full-time lateral entry teacher position in the field of mathematics.

Strengths:
- Goal-oriented, will work with others and/or independently to meet deadlines.
- Strong analytical and problem-solving skills: aggressively seek challenges.
- Extremely computer literate, strong communication, interpersonal and organizational skills.
- Highly creative and adaptive to a wide variety of people and circumstances; work well with others.

Education:
North Carolina Agricultural and Technical State University, Greensboro, NC
Bachelor of Science Degree
Major:  Computer Science
Graduation Date:  December 2003
University of North Carolina at Wilmington, Wilmington, NC
Middle School Math Teacher Certification  Expected Graduation Date:  May 2012

Professional Experience:
Leland Middle School, Leland, NC  Technology Assistant  2004-present
- Troubleshooting computers, networks, software, and
- Administer NT Server 4.0, XP, 2000, 98 & 95 Workstations
- Provided teaching, training, and consultation for staff and students.
- Assist in Web Site development. (HTML and MS Front Page).
- Responsible for hardware and software set ups, installs and configuration.
- Math Tutor and Summer School Teacher

Creative Solutions llc
Community Support Specialist  2007-2008
- Worked in Team environment.
- Worked with adolescent/child by providing positive intervention/activity for clients.

North Carolina Agricultural and Technical State University, Greensboro, NC
Computer Lab Tech 2  2000-2003
- Provided customer service at the help desk.
- Basic trouble shooting of networks, hardware, and software.
Programming Research Developer  Summer of 2003
- A-Star Algorithm design and test (Unix and MS Visual C++, Unix and MS Visual Java, HTML and Open GL)
- Worked as a team of developers to produce variations of the A-Star Algorithm

Eli Lilly & Company, Indianapolis, NC  Program Developer/Program Manager  Summer Inter of 2001
- Managed the life cycle of a project.
- Developed and designed a database using lotus notes and dream weaver.

Special Skills:
Knowledge of Class room instruction that works, SRA’s Direct Instruction, Success Maker, Study Island, Accelerator Math, NC WISE, Glencoe, McNag Hill, IMPACT Module, CPS, Knowledge of Service Notes.

Honors:
George Saunders Science Scholar, Phi Beta Sigma Fraternity Inc. (Community Service Chair, Parliamentarian, Mentoring Committee), HPC (High Performance Computing) Top Student Award, Kitrell-Allen-Adams Scholar (2002), Effective Teacher Training

Activities:
Mt. Calvary AME Church (Youth Choir Director, Youth Dept. Chair, Asst. Church School Superintendent, Steward), ROCAME (Advisor), GENTS (Advisor), Middle School Football and Basketball coach (Leland Middle School), North Carolina RAYAC (President), SED RAYAC (President), CIS Mentor for Leland Middle School.

Personal:
Avocations: games, people, sports, music, church, youth, teaching, and traveling.

References:
Available upon request
Experience

Educator
August 1986 - 2011 New Hanover High, Wilmington, NC
- Geometry
- Algebra I, II, and III
- SAT Preparatory
- Earth Science

Educator
July 2005 - Present Cape Fear Community College, Wilmington, NC
- Adult High School
- General Equivalency Diploma Program

Educator
August 1984 – June 1986 Hallsboro High, Hallsboro, NC
- Advanced Math
- Algebra II
- Physics

Educator
August 1979 - June 1984 Acme-Delco Jr./Sr. High, Delco, NC
- Algebra I
- Geometry

Education

Elizabeth City State University, Elizabeth City, NC
August 1975 – June 1979
- B.S. Mathematics Education
- Certified in Secondary Mathematics and General Science
- Cum Laude

Extracurriculars

North Carolina Teacher’s of Mathematics, National Education Association, Delta Kappa Gamma Society for Women in Education (Corresponding Secretary), Mount Nebo Missionary Baptist Church (Financial Secretary)

References

Dale Pelsey-Becton, New Hanover County Schools (910) 200-7613
Boubacar AW

Quick Biography

Attended Georgetown University located in Washington D.C. from the period of August 20th 1994 to May 23rd 1998 on a basketball scholarship earning a degree in International Relations. Upon graduating, I went on to pursue a basketball career overseas traveling all over the world, meeting people from different backgrounds and getting to learn new languages and cultures. I am fluent in three (3) languages, FRENCH, ENGLISH AND SPANISH.

ADDRESS

1520 FLUSHING DRIVE, WILMINGTON, NC, 28411
EMAIL: booaw@hotmail.com
HOME PHONE # 910-793-5569
MOBILE PHONE # 910-264-8120

EDUCATION

East Columbus High School Sep 1993 – May 1994 High school diploma
UNIVERSITY
Georgetown University Aug 1994 – May 1998 B.A International Relations
A minor in French

PROFESSIONAL EXPERIENCE

New Hanover County Schools 08/2011 – Present
Lateral Entry Teacher K-12

Basketball School Supervisor 8/01/2010 to 7/31/2011
San Andres Basketball School, Mexico City, Mexico

Professional Player 8/6/2008 to 5/6/2009
Halcones UV Cordoba A.C. Cordoba, Veracruz

Professional Player 8/01/2003 to 12/01/2007
La Ola Roja, Mexico City, Mexico

Professional Player 12/03/2007 to 5/30/2008
Club Rieti, Roma, Italy

Club Belgrano, San Nicolas, Argentina
Columbus County
Emergency Services
Fire Marshal's Office

Name of Facility: Community Support Agency
Physical Address: 44 Dismas Ave Suite A, NC 28411
Phone Number: 910-655-0694 Owner/Mgr: Andra Simmons
Key Holder Information: Name: Donald Bray Phone #: 274-4618
Name: Kim Brown Phone #: 685-4101
Fire Alarm System: ☑ Protected ☑ Unprotected ☑ Monitored System
Sprinkler System: ☑ Protected ☑ Unprotected ☑ Wet ☑ Dry

During the course of this fire inspection the following violations or hazards were identified:

1. All violations noted on inspection dated 10-13-2011 have been corrected.

2. Building has no outstanding violations at time of inspection.

The above violations or hazards must be corrected by: ____________________________ (Compliance Date)

Signature: ____________________________
Signature of Inspector: ____________________________

Date of Inspection: 10-25-2011

Title: Deputy Fire Marshall

Columbus County Government in accordance with North Carolina General Statutes must inspect businesses on periodic bases for the protection of its citizens from hazards associated with fire.

608 North Thompson Street
Whiteville, North Carolina 28472
### Inspection of School

**Name of School:** Tri-County Academy of Stem

**Location Address:** 1334 Davis Ave

<table>
<thead>
<tr>
<th>Section</th>
<th>Score</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Water Supply</td>
<td>175</td>
<td></td>
</tr>
<tr>
<td>2. Sanitary Sewage Disposal</td>
<td>205</td>
<td></td>
</tr>
<tr>
<td>3. Drinking Fountains</td>
<td>80</td>
<td></td>
</tr>
<tr>
<td>4. Toilet Facilities</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>5. Lavatory Facilities</td>
<td>70</td>
<td></td>
</tr>
<tr>
<td>6. Floors: Walls and Ceilings</td>
<td>30</td>
<td></td>
</tr>
<tr>
<td>7. Storage Spaces</td>
<td>70</td>
<td></td>
</tr>
<tr>
<td>8. Lighting and Ventilation</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>9. Dressing Rooms and Showers</td>
<td>80</td>
<td></td>
</tr>
<tr>
<td>10. Solid Waste Disposal</td>
<td>80</td>
<td></td>
</tr>
<tr>
<td>11. Premises: Miscellaneous</td>
<td>80</td>
<td></td>
</tr>
</tbody>
</table>

**Total Score:** 40

**Additional Comment Sheet Attached**

---

**Instructions:**

**Purpose:** General Statute 130A-236 requires the Commission for Health Services to adopt rules governing the sanitation of public, private, and religious schools. This form has been developed to record the results of such inspections. **Preparation:** Local environmental health specialists shall complete the form every time they conduct an inspection. Prepare in original and two copies for: 1. Original to be left with principal. 2. Copy for the local health department. 3. Copy for the Environmental Health Services Section, Division of Environmental Health. Disposition: Please refer to Records Retention and Disposition Schedule B.3.6, Inspection Records for County/District Health Departments which is published by the North Carolina Division of Archives & History. Additional forms may be ordered from: Division of Environmental Health, 1632 Mail Service Center, Raleigh, NC 27699-1632. (Courier 52-01-00)
X. SIGNATURE PAGE

The foregoing application is submitted on behalf of Men and Women United for Youth and Families, CDC. The undersigned has read the application and hereby declares that the information contained in it is true and accounts to the best of his/her information and belief. The undersigned further represent that the applicant has read the Charter School Law and agrees to be governed by it, other applicable laws, and SBE regulations.

Print/Type Name: Devoria K. Berry

Position: Vice – Chairperson

Signature: Devoria K. Berry Date: 11/9/2011

Sworn to and subscribed before me this 9th day of November, 2011.

Andrea B. Simmons
Notary Public Official Seal

My commission expires June 30, 2014.