IPG Application:

2019 NC Innovative Partnership Grant (IPG) Competition
Cohort I - (January 2020 – September 2023)

ENTITY: Guilford County Schools **ENTITY Code: 410**

SCHOOL: Bessemer Elementary **NCDPI SCHOOL #: 410328**

IPG Entity Contact Name: Dr. Jocelyn B. Becoats

IPG Entity Contact Title: Executive Director Federal and Special Programs

IPG Entity Contact Phone: 336-370-8360

IPG Entity Contact Email: becoatj@gcsnc.com

Purpose of the Program:
To carry out the State Educational Agency's statewide system of technical assistance and support for Entities,[1] which have schools identified as schools in need of Comprehensive Support and Improvement (CSI) under the State's federally approved plan for The Every Student Succeeds Act (ESSA). This competition will provide additional fiscal resources, technical support, and regular school[2] visits to improve student achievement and ultimately to assist these schools with exiting the federal identification and status of CSI.

Eligibility:
To be eligible to receive these funds, an Entity must have one or more schools identified under the federally approved definition for CSI schools. Funding will be made based on a competitive process. If an Entity is applying on behalf of more than one (1) CSI School, a separate application is required for each school and the applications should be unique to the needs of each school.

Special Provisions:
Each grant is awarded for a "period of availability" beginning July 1st and ending September 30th of the following year. The Tydings amendment extends the grant period of availability to 27 months by allowing unexpended funds as of September 30th to carry over an additional 12 months. Funds are potentially available to Entities for 27 months provided there is a continuation of funding available and the school meets annual goals as stated in the initial application.

The State Education Agency (SEA) will determine whether to renew an Entity's grant award if the school served by the applying Entity is not meeting: the goals identified for the interventions an Entity is implementing, student achievement outcomes, leading indicators, and/or other factors determined by the SEA.

November 15, 2019 – Innovative Partnership Grant Applications due date to NCDPI:
Two (2) applications are due to chris.vecchione@dpi.nc.gov (copied to IPG_application@serve.org) by 5:00 p.m. One (1) final PDF version of the IPG application with all identifiers noted, and one (1) PDF version of the IPG application that removes ALL identifiers of the specific Entity and replaces the LEA name with "Entity", or the Charter Entity name with "Charter", and the School name with "School". Both copies of the application should be sent in the same email. The second version (without identifiers) will be used by the external partner as a blind copy during the actual application review and Level I scoring. To be equitable and transparent – no application received after 5:00 p.m. on November 15, 2019 will be reviewed or considered for this competition. The application should be no longer than 40 pages total*, single-spaced with one-inch (1") margins on all sides, and using a 12pt font in Times New Roman. (*Note: Applicant may use up to four (4) additional pages to respond to Question II-B(7) ONLY, if applicable.)

All IPG questions / correspondence should be directed to:

Dr. Chris Vecchione, Assistant Director, Federal Programs @ NCDPI Email: chris.vecchione@dpi.nc.gov

[1] For purposes of this application, the term "Entity" will be used to refer to a local educational agency (LEA), a public charter school that is a local educational agency under State law, or an Innovative School District.

[2] For purposes of this application, the term "school" will be used to refer to the school served by the entity (and on whose behalf the entity is) applying for the Innovative Partnership Grant.

(A) ASSURANCES: An organization must include the following state assurances in its application for an Innovative Partnership Grant:

(**By checking <u>each</u> box**) the Entity is making the following Assurances if awarded an Innovative Partnership Grant (<u>no point value awarded; however, any application without each assurance box checked will not be reviewed beyond this point in the application, nor considered for the Innovative Partnership Grant</u>):

<u>The North Carolina Department of Public Instruction (NCDPI) Assurances:</u>
The Entity submitting this application, hereby assures that it will:

✓ Use its Innovative Partnership Grant, <u>in collaboration with a Partner</u>, to implement fully and effectively research-based school improvement strategies in each CSI School that the Entity commits to serve;

✓ Establish annual goals for student achievement on the State's assessments in reading / language arts, mathematics, and science. The Entity will also establish annual goals in other data points required by this grant and track these data points in 20-day increments throughout the period of availability of the grant using a data tracking log provided by the Federal Program Monitoring & Support Division at NCDPI;

✓ Report to NCDPI (by use of the designated data tracking log) the school-level school improvement data requested by the Federal Program Monitoring & Support Division, including baseline data for the year prior to being awarded the grant. The following data points will be collected and reported to NCDPI upon request and these metrics constitute the leading indicators for the IPG Program (in addition to school achievement data):

1.) Dropout Rate (if applicable);
2.) In School Suspensions (if applicable);
3.) Out of School Suspensions;
4.) Student attendance rate;
5.) Chronic Absenteeism Rates;
6.) Certified Staff attendance rate;

(others as determined by NCDPI)

✓ Ensure that each CSI School that it commits to serve receives all of the State and Local funds it would receive in the absence of the IPG school improvement funds and that those resources are aligned with the research-based school improvement strategies in the approved application.

✓ Employ a twelve (12) month IPG School Coach in each of its IPG awarded schools to assist the school leadership with implementation of the research-based school improvement strategies, 100% of the employed School Coach's time and services will be at the IPG awarded school. *This assurance may be met by contracting with an external provider - 40 hours per week / 12 months.*

✓ Not reassign the IPG Principal during the 2 years of "full implementation": (2020-2021 and 2021-2022) unless for reasons of demotion, retirement, or resignation.

I / We HEREBY CERTIFY that to the best of my / our knowledge, the information contained in this application is correct; and the Entity, if awarded an Innovative Partnership Grant, will abide by all assurances that are checked above and throughout this application, as well as follow this application as submitted. We understand that failure, at any time to fulfill the Assurances, will be cause for the grant award to be rescinded. As authorized individuals with the Entity identified in this application, we submit this application with NCDPI for consideration of an award for the 2020–2023 IPG Cohort I Competition. Any changes in scope or sequence of this original application must be submitted to the State IPG Coordinator for approval before taking action on such changes.

Dr. Sharon L. Contreras	Sharon L. Contreras	**11/12/2019**
Name of Superintendent	**Signature of Superintendent**	**Date Signed**
Deena A. Hayes	Deena A Hayes	**11/12/2019**
Name of Board Chair	**Signature of Board Chair**	**Date Signed**

For State Use Only

Date Received: Click or tap to enter a date. Received by: Click or tap here to enter text.

Grant Awarded: Click or tap here to enter text. If Applicable – Awarded Amount: Click or tap here to enter text.

APPLICATION NARRATIVE:

(B) SCHOOL TO BE SERVED: An Entity must include the following information with respect to the school it will serve with an Innovative Partnership Grant:

An Entity must identify

- CSI School (Name) the Entity commits to serve (if awarded);
- the grade levels served by the school (K-5, 6-8, 9-12, K-12, etc.);
- the type of school (traditional, charter, alternative, ISD, Lab, etc.);
- the NCDPI School ID # (LEA-School, i.e. xxx-xxx), and
- the proposed partner that the Entity will collaborate with in the CSI School. If the applicant Entity proposes to partner with someone NOT on the vetted and approved list – in the "Proposed Partner" column – list "other".

The Partners the Entity may collaborate with (without further justification on the Entity's part) are: (1) Darden UVA; (2) Drive; (3) Ed Direction; (4) Mass Insight; (5) Public Impact; (6) RTI; (7) Success for All; (8) UPD Consulting; and (9) WestEd (listed in alphabetical order, not rank order).

School Name:	Grade Level(s):	Type:	NCDPI ID#:	Proposed Partner*:
Bessemer Elementary	3-5	Elementary	410328	RTI, DRIVE

*Entities may propose a partner of their choice (not on the list); however, the applicant Entity must provide justification for the selection of the proposed partner, which will then be vetted in a process similar to those already approved. There is not a final guarantee that the (not previously vetted) partner will be considered an acceptable partner for IPG funding.

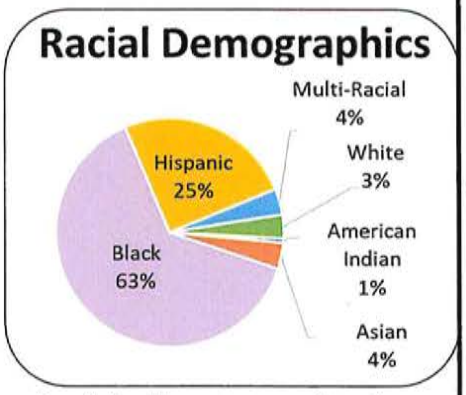
NOTE: *EACH school for which the Entity is applying, must have a separate application for review as the awards are made individually to schools and not collectively to Entities.*

(C) DESCRIPTIVE INFORMATION: An Entity must include the following information in its application for an Innovative Partnership Grant. Please provide a detailed response to each required element below (every element must have a detailed response with the exception of those marked "if applicable" - for those elements that are "not applicable" to your Entity's application – indicate "not applicable"):

I. For the CSI School that the Entity commits to serve (if awarded), the Entity must demonstrate that the Entity has analyzed the needs of the school, such as: a) Instructional Programs, b) School Leadership and c) School Infrastructure. This analysis, among other things, examines the needs identified by families and the community, school staff, and selected interventions aligned to the needs the school has identified:

Please provide the results of the needs analysis below – providing specific needs identified through the analysis in each of the corresponding areas. *(Note: For the "School Leadership" section please complete the specific questions with additional detail related to a needs analysis.)*:

This is a proposal for a STEM Spark initiative. The purpose of the initiative would be to establish engaging, inquiry-based STEM learning – atop a foundation of social emotional learning (SEL) – to spark transformative growth in all areas of academic achievement, attendance, engagement, and collective teacher efficacy. We would accomplish this by equipping teachers to provide engaging daily classroom instruction in STEM that is integrated with and supplemented by a new, once-weekly STEM specials class (formerly a computer lab special) and a revamped, once-weekly Inquiry specials class (formerly a Media specials class). An intentional SEL capacity-building program at the classroom level would nurture the self-regulation, perseverance, and collaboration abilities students need to fully engage in a productive STEM experience, as well as in all other areas of instruction. Bessemer needs this STEM Spark because our instruction is currently not meeting students' academic potential or their engagement and social emotional needs. We are also having difficulty retaining teacher capacity.

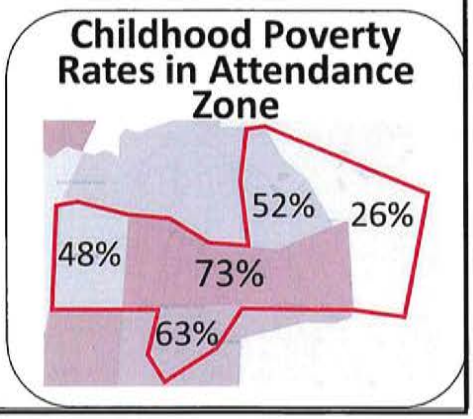


a) Instructional Programs:

***Response*:**

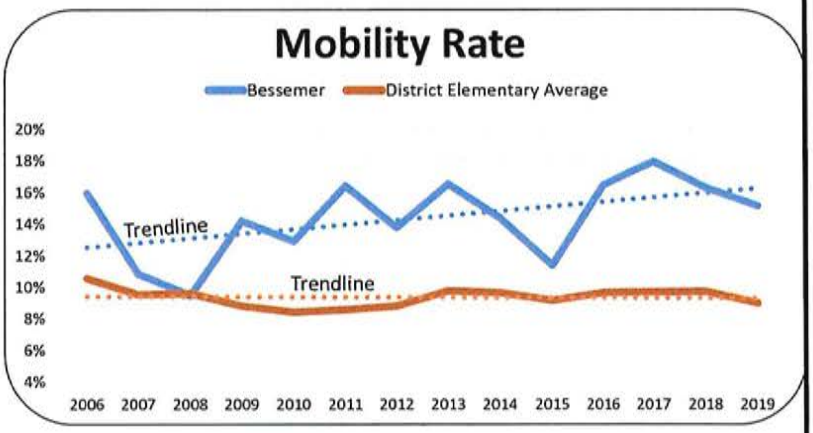
Student Community

Race. Bessemer Elementary (Bessemer) is one of GCS' 69 elementary schools. Located just northeast of the county center, Bessemer is an urban school that began operation in 1900 as a one-room schoolhouse. It is a minority-majority school, with 59% of its student community being Black and 25% Hispanic. Multi-Racial, Asian, White, and American Indian students comprise the remaining 16% of our student community.



Poverty. Our community is also one of high poverty. The rate of childhood poverty in the largest and most densely populated region of our attendance zone is 73% (http://www.city-data.com/poverty/poverty-Greensboro-North-Carolina.html), followed by 63% and 48% in smaller regions. The least populated regions of our attendance zones have childhood poverty rates of 52% and 26%. As a result, one hundred

percent of our students receive free breakfast and lunch through the Community Eligibility Provision program as well as a free snack each afternoon through the Fresh Fruit and Vegetable Program.



Mobility. Mobility and transition are also significant characteristics of our student community. Since 2006, student mobility has ranged from 10% to as high as 18% and is trending upward. That is higher than the district average which has hovered around 9% during the same period.

Tiered Curricular Programs

To fully organize our instructional program around the best practices of the Multi-Tiered System of Support model (MTSS), we utilize three research-based curricular programs to provide scaffolded, grade-level, tier-one instruction in reading and math that is aligned with the North Carolina Standard Course of Study (NCSCOS).

Reading. *Lower Elementary.* In reading in the lower elementary grades, we use the research-based curriculum Core Knowledge Language Arts (CKLA). We are in our third year of implementing both the Skills and the Listen-and-Learn strands of this program. The Listen-and-Learn strand facilitates literacy acquisition in the context of content that is aligned with the NCSCOS in Science and Social Studies. Beginning in the current school year, our lower elementary teachers are supplementing CKLA with high-intensity direct daily instruction and practice in phonemic awareness and phonics.

At the tier-two level, our lower elementary teachers use the state's iStation diagnostic tool to understand students' individual reading needs and deliver differentiated literacy instruction. In the current year, we have also added as-needed supplementary diagnostic assessment based primarily on the phonics and phonemic awareness assessments developed by the Consortium on Reaching Excellence in Education (more familiarly referred to as CORE).

Upper Elementary. In upper elementary reading, we are in our second full year of implementing the researched-based American Reading Company literacy program (ARC). ARC is a transformative literacy program, aligned with the NCSCOS, which provides a scope and sequence for scaffolded, grade-level, tier-one instruction, including project-based learning that supports science and social studies standards in the NCSCOS. Importantly, the program includes a wide array of leveled text that allows students to read about grade-level content in text that is at their individual reading level.

At the tier-two level, ARC provides diagnostic tools and instructional materials that support differentiated instruction. ARC's Independent Reading Level Assessment (IRLA) serves a similar purpose as iStation does

in lower elementary – it identifies students' individual reading levels and skill deficits, allowing teachers to deliver differentiated instruction. A wide array of leveled text ensures students have plenty of material to choose from at their reading level while Foundational Tool Kits provide teachers with high quality resources for one-on-one and small-group, skill-focused lessons.

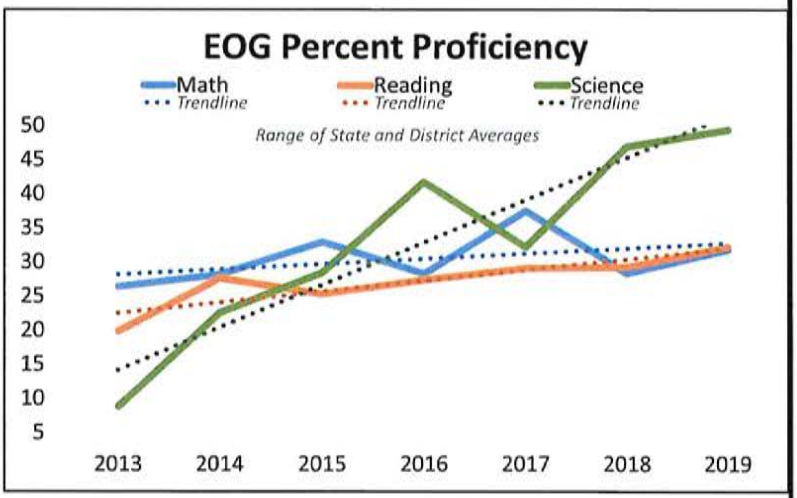
Math. In math in both lower and upper elementary, we use the research-based Eureka Math curriculum (Eureka) to guide our scaffolded, tier-one math instruction. Eureka provides a scope and sequence, aligned at every grade-level with the NCSCOS, to lead students on a conceptual journey of math acquisition. Like CKLA and ARC, Eureka provides all the lesson plans and practice materials teachers need to deliver scaffolded grade-level instruction. We are also currently in the early stages of implementing Excel-based "mastery trackers" to monitor student success in the grade-level content and to guide tier-two corrective instruction and intervention. We are in the planning stages of developing universal math screeners to better guide that tier-two math instruction.

Tier Three Interventions. To provide targeted, tier-three supports, we operate an Instructional Support Team model that advises teachers in meeting the needs of students who are not yet thriving under tier-one and tier-two supports. Our specials teachers (art, music, physical education, technology and media) also collaborate with teachers to provide inclusion and intervention support where needed. Finally, our Exceptional Children's teachers provide resource and inclusion supports to students who have been identified as having exceptional needs.

Instructional Coaching. Beginning in 2019, we implemented the Opportunity Culture model, creating full-time coaching positions to support teachers in grades three through five. Given the strong improvement in student growth that year as well as the positive movement in proficiency in every subject area, we added an additional coach and extended coaching coverage to all teachers, Kindergarten through fifth grade. Thus, we now have a K-1 coach, a 2nd grade coach, a 3-4 coach, and a 5th grade coach. These coaches provide 360° coaching that incorporates classroom management and all subject areas. They also act as conduits for additional coaching provided by external coach-partners from CKLA, ARC and Eureka.

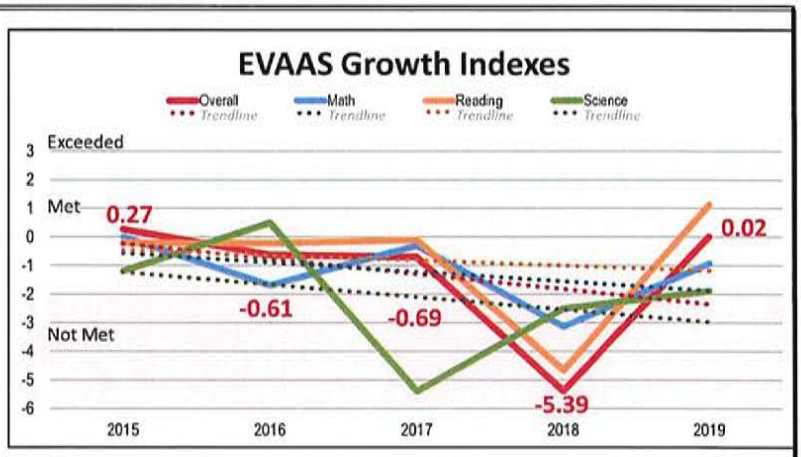
The Need for a STEM Spark

Not Meeting Students' Academic Potential. *In Science*. Student proficiency in science is trending up since 2013, but was well below state and district averages until 2018 and 2019 (http://www.ncpublicschools.org/accountability/reporting). While we are pleased with the upward trend and the fact that our students were competitive with the state and district averages in 2018 and 2019, this proficiency is accompanied by a downward trend in expected growth since 2015. Even in 2019, when our overall expected growth rebounded sharply, the rebound in science was only 0.6 standard deviations while the rebounds in reading and math were 5.79 and 2.21 standard deviations, respectively.



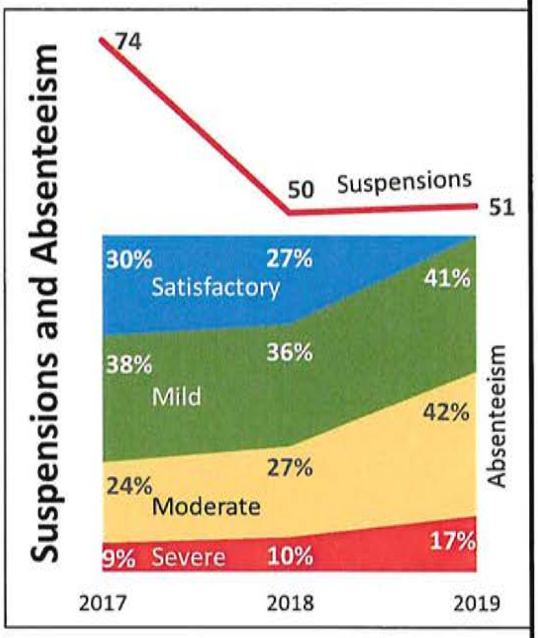
These growth deficiencies suggest that our instructional program in science is failing to springboard our students to their potential. Said differently, our students are becoming increasingly proficient while falling increasingly behind their potential.

In Reading and Math. Reading and math are following the same pattern as science, only with less amplitude and less competitiveness with state and district averages. Proficiency scores are trending up since 2013, but only 4.6% and 3.7% between 2014 and 2019, while science proficiency is up 26.9% over the same period. Expected growth, meanwhile, is trending downwards despite these modest proficiency gains. Thus, as in science, our reading and math instructional programs are failing to springboard our students to their potential in those subject areas.



Not Meeting Students' Engagement or Social Emotional Needs. While out-of-school suspensions (OSSs) are down 34% from 74 in 2017 to 50 and 51 in 2018 and 2019, they and the office discipline referrals (ODRs) that underlie them were high enough to warrant the addition of a Youth Development Counselor during the 2019 year and a second Guidance Counselor during the current year.

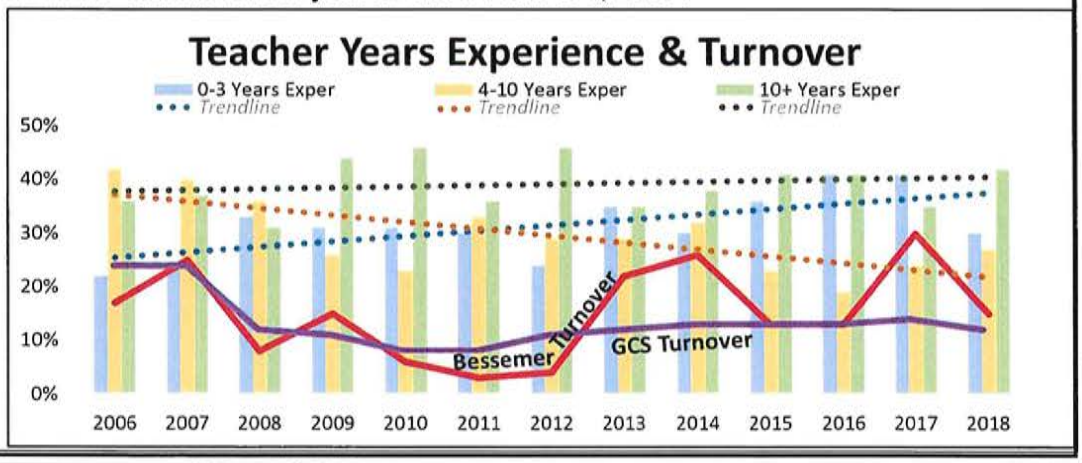
Chronic absenteeism is also a growing challenge. The percentage of students with severe to moderate absenteeism rose from 33% in 2017 to 59% in 2019. In the same time period, the percentage of students with satisfactory levels of absences dropped from 30% of students in 2017 to 0% in 2019.



All of these measures – OSSs, ODRs, and absenteeism – are proxies for a lack of engaging instruction and a failure to meet students' social emotional needs. Students misbehave when their classroom experience is boring or frustrating, and when they do not have a strong, positive relationship with their teacher. For these same reasons, students also find rationalizations not to come to school.

To respond to these challenges, we added a Youth Development Coordinator during 2019. In the current year, we also added a second Guidance Counselor and implemented a partnership with two local mental health providers. These measures, while important, are more reactive than preventive. As a result, there were 303 ODRs in the current school year as of November 8, 2019.

Challenges in Retaining Teacher Capacity. The strongest lever in addressing our challenges is the capacity of our teachers. Retaining that capacity, however, has been a challenge. In four of the six years between 2013 and

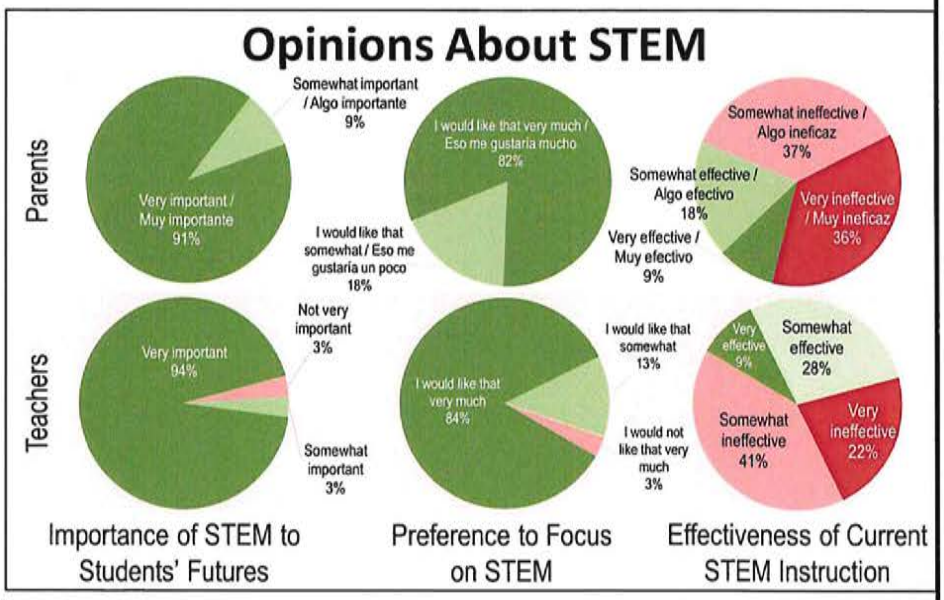


2018, our turnover rate has nearly doubled the district average. Moreover, since 2006, beginning teachers have increasingly comprised a larger percentage of our staff while teachers with four to 10 years of experience have comprised a smaller percentage. This rate of turnover and trending towards beginning teachers represents a significant capacity drain.

As described, above, we have addressed this capacity drain by adopting curricula in reading and math so that our teachers do not have to design curricula in addition to teaching it. We also implemented a coaching model to build capacity. While we are beginning to see improvements, we must get better faster.

What a STEM Spark Would Do

Spark a Turnaround. Our proposal is to implement an inquiry-based STEM experience (science, technology, engineering and math) that is supported by a social emotional capacity building program for teachers to spark an academic and behavioral turnaround at Bessemer. STEM would build on the science proficiency strengths our students have demonstrated. It would create engagement that would reduce boredom and frustration's contributions to behavioral challenges. Intentionally building our teachers' capacity for providing social emotional support would further reduce these interfering behaviors. Meanwhile, the resulting increase in engagement and learning time would increase the effort students invest into learning the reading and math necessary to succeed in the STEM work and in life. All the while, providing our increasingly inexperienced teachers with a STEM curriculum would reduce the curriculum design burdens they bear in that area.



Create Relevance for Students' Futures. In surveys administered in October 2019, 91% of parents and 94% of staff indicated that STEM is very important to our students' futures. There was also a widely shared preference that Bessemer focus on STEM (100% of parents and 97% of staff) and similar consensus on the current ineffectiveness of STEM instruction (73% of parents and 63% of staff).

b) School Leadership:

The Entity is responsible for providing strong leadership by: 1) either replacing the Principal if such a change is necessary to ensure strong and effective leadership if awarded the IPG, or demonstrating to the SEA that the current Principal has a track record in improving achievement and has the ability to lead the IPG improvement effort; 2) reviewing the performance of the current Principal; and 3) providing the Principal with operational flexibility in the areas of scheduling, staff, curriculum, and budget.

If the Entity is awarded an Innovative Partnership Grant for Cohort I, is it the Entity's intention to "replace" or "retain" the current Principal?

Response: Retain

If the answer above is "replace", please provide a detailed response to "why" and what the plan will be to hire a replacement Principal:

***Response*:** N/A – the plan is to retain

If the answer above is to "retain", please provide responses to the following:

What school year did the Principal that you plan to retain - begin serving as Principal at the school? (i.e., 2013-14SY):

***Response*:** 2018-19 School Year

How many total years of experience does the Principal being retained have as a Principal (NOT including experience as an Assistant Principal):

***Response*:** 1

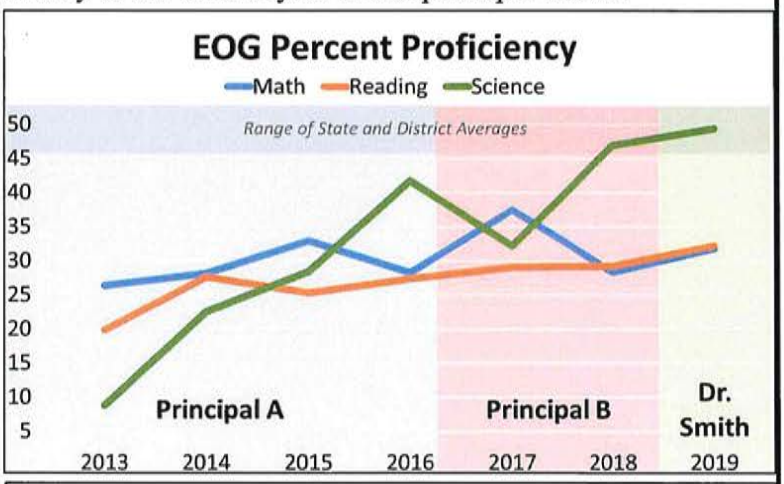
Provide a justification and rationale for retaining the current Principal (using qualitative / quantitative data):

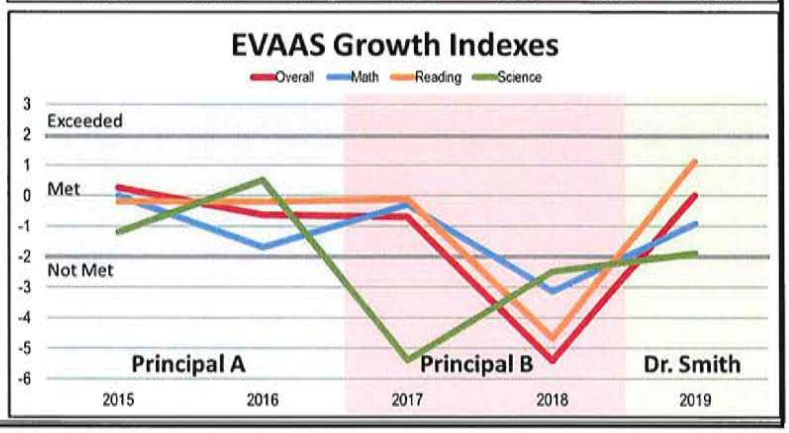
***Response*:** GCS intends to retain the current principal, Dr. Chelsea Smith. After three years of experience as an assistant principal at Wiley Elementary – a GCS elementary school that is smaller but more highly impacted than Bessemer – and two years of experience as an assistant principal at Smith High School – another highly impacted GCS school – Dr. Smith joined Bessemer as principal during the 2018-19 school year. She is currently in her second year of her principal career.

Increases in Proficiency and Growth

Dr. Smith joined Bessemer during a challenging transitional time. The previous principal was recruited away to serve in another district after only two years. Math and reading were essentially flat from start to finish over those two years. Science proficiency was an inherited bright spot as it grew from 42 to 47% in the year before Dr. Smith's arrival. Growth, on the other hand, had declined precipitously, from an overall index of -0.69 in 2017 to -5.39 in 2018.

In her first year, Dr. Smith reversed the declines she inherited. Proficiency in reading, math, and science increased 3%, 3.5%, and 2.5% respectively, with science proficiency competing solidly with state and district averages. Growth was even more pronounced. Math growth rose 2.21 standard deviations, reading 5.79, and science .6. In combination,





these growths pushed the overall growth index up 5.41 standard deviations. Thus, all four of the growth measures were reversed from "not met" to "met."

Turnaround Expertise
Dr. Smith recently completed her Doctor of Education. The focus of her dissertation research was how principals of highly impacted schools meet the manifold challenges such schools face and how to build teacher capacity to move them forward (https://libres.uncg.edu/ir/uncg/listing.aspx?styp=ti&id=25202).

The Right Person for the Job
This research expertise provides Dr. Smith with the intellectual understanding of the challenges at Bessemer and the solutions for overcoming them. Moreover, the stabilization and recovery achieved in her first year demonstrate Dr. Smith's capacity to put this intellectual understanding into action. It is for these reasons that the plan is to retain Dr. Smith as Bessemer's principal so that she can continue the turnaround that is successfully underway.

Regardless of whether the current Principal will lead this turnaround effort, or a new Principal is installed July 1, 2020…what additional "operational flexibilities" will be afforded this Principal as compared to those afforded at non-IPG awarded schools":

***Response*:**

1. **Teacher Observation Flexibility** – Restart schools may choose to do the same abbreviated teacher observation process (standards one, four, and six) for BT's 1-3 after completing at least one full observation at the beginning of the year. Staff with performance concerns or who may already be on a plan must continue to receive the full teacher observation.
2. **Licensure flexibility** – Restart schools have flexibility in hiring staff that may not meet all of the appropriate licensure requirements upon the conditions that 1) the candidate provides evidence of effective academic outcomes with students and, 2) licensure requirements are met within a year of the initial hire date.
3. **KEA flexibility** – Restart schools will have the flexibility to choose how/ if they would like to implement KEA assessments
4. **Multiplication/Cursive flexibility** – Restart schools may have flexibility in when they teach cursive and multiplication tables, but it still must be taught. If a school decides that they want to differ from the state pacing then a plan must be submitted outlining how and when this would be done and approved by both the Teaching and Learning department in addition to the SSO.
5. **Class Size flexibility** – Restart schools do not need to adhere to k-2 class size limitations.
6. **Teacher Incentives** – Restart schools may choose to provide teacher incentives utilizing CSI and/or restart funds. An Incentive of $3,000 can be given to teachers that have exceeded expected growth in their content area and/ or grade level. Restart schools may also choose to provide a recruitment incentive of $3,000 to recruit high performing teachers.
7. **Calendar Flexibility** – Restart schools have operational flexibility in planning their academic and staff calendars. Students must still attend the required 185 days or 1025 hours, but schools have the option to apply flexibilities to the other aspects of calendar law. This includes, but is not limited to, alternate start and end dates, additional time for staff planning and or work days, and or alternate daily start and end times.

c) School Infrastructure:

Response: Bessemer's school infrastructure is improving but is currently inadequate to support a STEM Spark.

Ill-Equipped Space for STEM and Inquiry-Based Learning
Bessemer currently has one computer lab that consists of approximately 30 desktop computers. Because of the immobility of the computers and tables, the space can be used for nothing other than direct instruction and individual computer work.

Our adjacent media center contains stationary, 1960s-era shelving primarily along its outer walls. Several tables, along with heavy wooden chairs, provide seating in the center of the space. A large, immobile circulation desk dominates the entrance along with four desktop computers clustered on a table. The space is functional for direct instruction and open circulation, but is not equipped with things like mobile shelving, flexibly arranged tables, or soft-core furniture to support collaboration, inquiry-based learning (IBL), and multi-purpose use.

No Curriculum or Resources for STEM
Bessemer currently has neither purchased nor adopted a curriculum for teaching STEM. Nor does it have the resources to deliver high quality, inquiry-based STEM instruction. Such resources would include reusable equipment such as robots, microscopes, virtual reality goggles, voltmeters, and 3D printers as well as consumable materials such as electrical wires, batteries, engineering blocks, circuits, and washers. The media center collection, meanwhile, lacks cultural relevancy and contains an inadequate quantity and variety of titles to support inquiry learning.

Improving Device Saturation
Beginning in 2018 and more significantly ramping up in 2019 and the current year, Bessemer has significantly increased the robustness of our digital infrastructure. This has included decreasing the student-to-device ratio to approximately 5:1 in lower elementary and 2:1 in upper elementary, as well as equipping every room with a mounted projector capable of wirelessly connecting to a laptop. In the current year, we are also experimenting in the media center and a PLC room with mobile, interactive panels.

Adequate Network Infrastructure
Our building is served by a 100MB connection with filtering through the state's Zscaler solution. Our onsite infrastructure includes multiple wired connections in every room and wireless Internet access distributed throughout the building by 29 Cisco 2802 access points. 18 Cisco 2960X switches manage traffic on our local network. Our computer lab is equipped with an access point while our media center is equipped with two.

What a STEM Spark Would Do
A STEM Spark would establish a STEM lab that is upfitted with the furniture, equipment, and consumables to provide students with a robust STEM experience. It would also upfit a newly renamed Inquiry Center (formerly the Media Center) with furniture and equipment to provide supplemental STEM experiences as well as support inquiry-based learning and collaboration. Finally, a STEM Spark would provide classroom teachers with a curriculum and supporting kits to deliver standards-aligned STEM instruction in the classroom. Meanwhile, the SEL capacity building component would equip teachers to support the self-regulation, perseverance, and collaboration abilities students must develop to fully engage in a productive STEM experience.

II-A. The Entity/School must use its Innovative Partnership Grant, in collaboration with a Partner, to implement fully and effectively research-based school improvement strategies. Select the proposed partner from the pre-vetted list of partners below that the Entity/School plans to develop a partnership with:

Response:

- ☐ Darden / UVA - Curry Partnership for Leaders in Education
- ☒ DRIVE Educational Systems
- ☐ Ed Direction
- ☐ MASS Insight
- ☐ Public Impact
- ☒ RTI International
- ☐ Success for All Foundation
- ☐ UPD Consulting
- ☐ WestEd
- ☐ Other (see II-B)

II-B. If the Entity/School selected "other" in Element II-A; please indicate the entity that you propose to partner with (will have to be "vetted" and not guaranteed to be "approved" (if applicable):

Not applicable. We chose to partner with pre-qualified organizations.

The following questions must be answered by all applicants. All questions requesting information about "Partners" must be addressed for all partners selected (whether on the pre-vetted list or those selected outside the pre-vetted list).

3.) For the CSI School, that the Entity commits to serve (if awarded), the Entity/School must demonstrate that it has taken into consideration family and community input in selecting the proposed partner:

Response: We invited parent and community input in two ways. First, we developed a survey in October 2019 that was communicated and shared through our website, over Class Dojo (a teacher-parent communication application that many of our teachers and parents use), by connect-ed automatic calls made in both English and Spanish to all parents, and by networking through our Parent Advisory Council (PAC) leaders. The results of that survey are discussed and graphically depicted, above, on page 9.

Second, we held a Parent Advisory Council (PAC) leadership meeting in October 2019 to discuss the idea and our partnership options. The leadership members were strongly in favor of becoming a STEM-focused school. In fact, one parent expressed regret that her older daughter – a 2019 Bessemer graduate – would miss the STEM experience.

During the PAC leadership meeting, we also solicited feedback regarding our selected partners. Administrative staff had already researched and communicated with all nine pre-qualified partners. The extent of those communications depended on the responsiveness of the partners and ranged from emails and voice messages to meetings held in-person and over video-calls. PAC leadership unanimously chose RTI as the preferred partner for STEM and DRIVE as the preferred partner for SEL.

4.) For the CSI School that the Entity commits to serve (if awarded), the Entity/School must demonstrate that it has taken into consideration school level input from school level staff (not solely administration) in selecting the proposed partner:

Response: Similar to parent and community input, we invited staff input in two ways. First, we developed and shared a survey in October 2019 that was communicated and shared with staff by email. The results of that survey are discussed and graphically depicted, above, on page 9.

Second, we held a School Improvement Team (SIT) meeting in October 2019 to discuss the idea and our partnership options. Administrative staff had already researched and communicated with all nine pre-qualified partners. The extent of those communications depended on the responsiveness of the partners and ranged from emails and voice messages to meetings held in-person and over video calls. The SIT voted to pursue the idea and to partner with RTI for STEM and DRIVE for SEL.

5.) The Entity/School must describe actions it has taken, or will take to: a) screen and select the external Partner, b) ensure their quality, and c) regularly review and hold accountable said Partner for their performance and measurable outcomes:

(a) Response: Bessemer staff reached out to all pre-qualified partners to conduct an interview assessing how each partner's core competencies, experiences, and capacities fit with Bessemer and our proposal. The depth, breadth and frequency of the subsequent communications varied based on the partners' responsiveness, but included in-person, video, phone, and email communications.

Bessemer administration then shared the findings with Bessemer's School Improvement Team and Parent Advisory Council leadership to solicit feedback on the choice of partners.

(b) Response: Relying on our own evaluation as well as the state's pre-qualification of the partners, we ultimately chose to partner with RTI for STEM and inquiry-based learning and with DRIVE for building the social emotional support capacity of our teachers.

RTI

Local Experience. RTI is based in North Carolina and currently provides support to more than 52 North Carolina school districts. Working in school settings ranging from K-13, RTI supports schools and districts with integrated methods of staff development that blend knowledge acquisition with hands-on application. Every engagement is customized based on the specific context and desired outcomes of the school or district. The result is a tailored support profile that enables us to best match staff experiences, skills, and resources to the needs of each project. To date, more than 90% of school and district clients choose to continue their relationship with RTI after the initial engagement.

Practitioner-Focused. More than 80% of RTI school consulting team members are former licensed K–12 educators with experience leading classrooms, schools, and districts in North Carolina. One of the fundamental components of implementation success is based on support from "purveyors who know interventions from a practice point of view" (Fixsen et al. 2010). The team supporting Bessemer is led by Dr. Angela Hinson Quick. Dr. Quick is a former NC Teaching Fellow, biology teacher, Title I school principal, deputy superintendent at NCDPI, and non-profit senior vice president. Dr. Quick was a highly awarded teacher and principal, active in the development of school infrastructure, cross-community relationships, and curriculum reform. She has led state- and national-level projects that involve the design and creation of curriculum and instruction methodologies, expansion of dual-credit opportunities for underserved students, and development of science, technology, engineering, and mathematics (STEM) education programming and outreach.

Engineering is Elementary Certified Staff. RTI staff are certified Engineering is Elementary (EIE) trainers. Through the EIE train-the-trainer process, our staff can support teachers to use the EIE curriculum units, build an understanding of engineering, technology and the Engineering Design Process, and support the implementation of the open-ended engineering design challenges with students.

Research-Driven. RTI's support of schools is differentiated by proximity and access to seminal experts in education research. RTI International, an independent, nonprofit research and technical assistance organization dedicated to improving the human condition by turning knowledge into practice. RTI was founded in 1958 in North Carolina and served as the founding catalyst for the internationally renowned Research Triangle Park. The Center for Education Services, who will be providing support, is embedded in RTI's Education and Workforce Development division, which includes more than 250 staff members who provide research and technical assistance across the education continuum, from newborn screening to adult education. The ability to diagnose needs and then rapidly pair practitioner consultants with research experts facilitates a practical translation of evidence-backed practices into school-level action.

RTI believes that all children, regardless of circumstances, deserve access to a quality education that empowers them to thrive. Their support approach integrates four drivers of meaningful change in education: strengthening teaching and learning (in this case STEM and IBL), developing leaders, improving operations through change management, and facilitating collaborative networks. Based on school improvement and implementation research (Duke 2006; Fixsen et al. 2010; Fullen 2006; Herman et al. 2008), these four components reinforce educator capacity building and local sustainability.

Sustainability Emphasis. The objective of providing CSI support is to position schools for sustained and improved student achievement. Because the level of support intensity in school turnaround efforts is generally not sustainable as a long-term strategy, a thoughtful sustainability plan is essential, typically executed over multiple years (Meyers 2017). RTI uses a gradual-release model to implant capacity based on the concept of "I do, we do, you do" starting early in the engagement so that, by the end, there is sufficient capacity to sustain improvement. We know that staff attrition is often a challenge in low performing schools (Henry, et al 2017). To help avoid turnaround being dependent on individual heroes, RTI will purposefully engage district-level staff in support and approach every engagement. RTI's team will also model specific techniques that are easily replicated across multiple settings and that may be applied to multiple challenges, including all facilitation materials. RTI professional learning is scaffolded to transition techniques to local practitioners who are in the optimal position to sustain the local high expectations for teaching and learning. One example of this type of scaffolding is the transition from small-group practice with lesson-tuning protocols to school-wide instructional rounds to district-wide peer school reviews. Notably, shared ownership is not delayed to a later phase of engagement; rather, it occurs immediately based on the co-planning efforts to reinforce buy-in based on authorship, not just ownership (TED 2010).

DRIVE

Building Culture Builds Capacity. DRIVE's focus on creating the conditions that foster a positive school climate ignites the passion of educators in the building, unites the learning community with an integrated purpose, and elevates student outcomes both in the classroom and prepares students for success in life after school. DRIVE founders spent decades in North Carolina schools working to improve culture as a means to increase capacity in both staff and students with great success. DRIVE co-founder and Senior Coach, Charlie Lyons, will be supporting Bessemer Elementary during this grant. Lyons is a former NC Principal Fellow with experience at several Title 1 schools, some of which are in Guilford County. He has led school culture and SEL initiatives to improve staff capacity in schools across North Carolina, South Carolina, and Georgia among other states.

DRIVE's most recent work with Beginning Teacher cohorts in North Carolina have registered a 93% retention rate compared with the state average of 65%. This addresses a key capacity drain that Bessemer is experiencing. DRIVE's research partners from the Alliance of the Study of School Climate have demonstrated through 20 years of national research that school culture has the highest correlation rate to student achievement and other factors of a successful learning community. This emphasis on culture correlates to a strong social-emotional component to all of DRIVE's training and coaching.

Scientifically Based Methods. Based on decades of research from Dr. William Powers and Dr. William Glasser, DRIVE's work is rooted in the science of human behavior and intrinsic motivation. In order to build long lasting social-emotional capacity, teachers must understand the science of why humans behave the way they do. This includes recognizing their own actions / reactions through the lens of Perceptual Control Theory. As classroom teachers at Bessemer build their social-emotional skills through self-reflection and self-evaluation they will be able to improve their practice in the classroom and to increase the references by which they can reach a larger number of students.

Creating a Positive and Safe School Environment. DRIVE's primary mission is to create a school climate that is warm, inviting and inclusive so that all learners can reach their maximum potential. This will be essential to the success we foresee at Bessemer Elementary. Our DRIVE partners recognize that meeting students' basic needs is essential to developing social-emotional competencies so that students can feel comfortable challenging themselves academically in the classroom. Bessemer Elementary staff will gain critical skills from DRIVE staff through modeling, small group and individual coaching sessions on how to best build SEL capacity. DRIVE Coaches have extensive K-12 classroom and district experience, but DRIVE also has several coaches with experience in non-profit substance abuse, drug prevention, counselling, and community organization services that are available to provide support as needed and when appropriate.

(c) Response: Our proposal builds in periodic reviews with our partners. These will occur at the beginning, middle and end of each year. During these reviews, we will assess progress in key performance metrics; reflect on what is working and what is not working; and make adjustments that capitalize on effective practices and improve ineffective practices.

6.) The School must describe actions it has taken, or will take, to design and implement a plan consistent with the research-based school improvement strategies and interventions the proposed Partner offers:

Response:

Leading Change: Visioning the STEM Spark

RTI and DRIVE's approach to school-based technical assistance is grounded in the prevailing belief that context is fundamental to effective support. The context and culture within classrooms, schools, districts, the local community, and the broader state all contribute to the success of school reform. These layers of environmental relationships reinforce the notion that school reform should not be undertaken in isolation—peer and district connections are essential (Meyers & Smylie 2017). Therefore, support is never delivered without first engaging in planning conversations with school and district leadership. The approach is not based on a one-size-fits-all model, but is customized based on the situation, strengths, and desired outcomes.

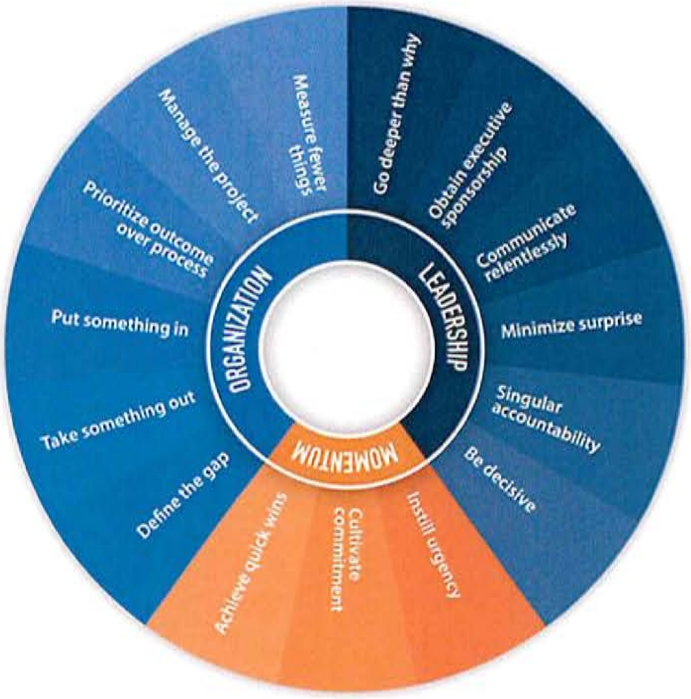
The work is guided by an overarching Theory of Change represented in the graphic below. At the core, this approach is based on educators being the catalyst for improving student achievement. Therefore, RTI and DRIVE work directly with educators to build capacity, self-efficacy, instructional practices, and organizational structures that translate into improved student learning and, ultimately, achievement.

Education is deeply contextual and successful implementation of any intervention must include meaningful service co-design and customization to develop Bessemer's STEM Spark. Furthermore, the education environment changes rapidly with demands that continuous and objective improvement mechanisms be embedded before, during, and after any meaningful change effort. Our work is also guided by recognition that peer teaching is an accelerant to adult learning. The principle of Cognitive Congruence suggests that the gap between experts and novices is better addressed by leveraging peers to co-teach and explain content in relatable ways (Jauregui et al. 2008). Thus, we will utilize peer-learning networks and partner co-design of professional development to facilitate learning and sustainability.

The process for school support will begin with a needs assessment and/or a review of recent needs assessments to inform how we co-design a plan of action that best matches the vision for STEM Spark. Though we have already engaged in early efforts to establish a shared understanding of context (by virtue of preparing this application), the needs assessment process/review will include a deeper effort to assess the strategies that best match current conditions at Bessemer. This effort will result in a data-based performance baseline; engagement of stakeholders (including students, teachers, and community members); and alignment of planning efforts to district, community, and state initiatives.

Once the needs assessment is complete, we will shift to focus on change management strategies. This process answers three questions that inform design of support: What are we trying to change? How are we trying to change it? How will we know if the change occurred? We then diagnose the type of change desired and match it with the best-aligned change strategies.

The change management approach we will use is based on RTI's research-based model described in detail in their change management whitepaper (Edney & Baker 2019). RTI has developed numerous resources, ranging from a change classification and diagnostic method, to a library of change strategies that can be matched with the diagnostic, to a change "derailer" protocol used for cultural reflection and readiness. Their change model is based on three components: Leadership, Momentum, and Organization.



Leadership

Communicating, inspiring, and removing barriers to success. Emphasizes *who* is driving the change.

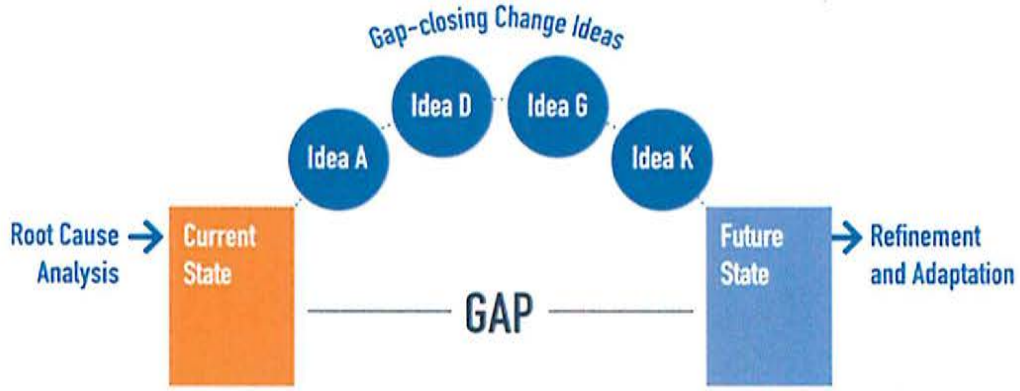
Momentum

Cultivating the will for change while nurturing motivation to complete the effort. Emphasizes *what* is being accomplished.

Organization

Setting the effort up for success, enabling and empowering those who are engaged. Emphasizes *how* the change is being accomplished.

In most cases, the early support focus is on cultivating commitment and buy-in among school stakeholders and staff. Efforts then shift into facilitating a process to develop a shared vision for the desired future-state of the school using a gap-based planning approach starting with a root cause analysis:



The resulting blueprint informs the specific implementation actions that will occur in partnership with RTI and DRIVE during the project. The change blueprint also provides a framework to fold in each aspect of the project design: improving instruction, leadership development, school climate and culture, and community engagement.

Establishing buy-in among stakeholders will be essential to project success. As part of a broader change management effort, Bessemer will work with RTI and DRIVE to conduct an annual premortem process as part of the annual planning adjustment phase of the project. The premortem process is a research-based technique adapted from health care that is used to manage risks with complex, high-risk, forward-looking projects (Klein, 2007; Johns Hopkins, 2016). The process includes a careful review of hypothetical causes of failure or challenge from the perspective of the future. Teams work to assess probable causes, prioritize concerns, and assess both the impact and likelihood of each cause. Finally, teams work to define specific mitigating adjustments that can be made in the project to avoid such outcomes. Research indicates many advantages afforded by the premortem process, including diminished groupthink (Serrat, 2012), diminished fear of negative outcomes, and increased ability to correctly identify reasons for future outcomes by 30% (Mitchell, Russo, & Pennington, 1989).

K-5 Instructional Support for STEM: Inquiry Based Learning

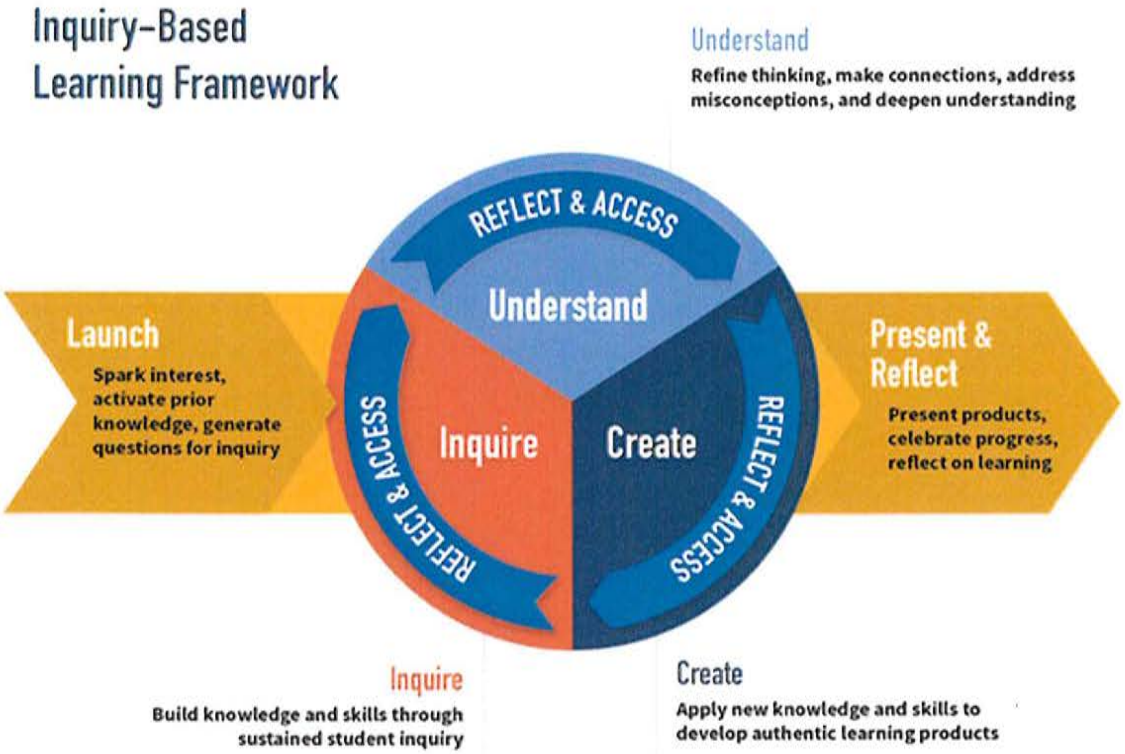
Inquiry-based learning (IBL), is an approach to learning that uses real-world and relevant contexts to engage all students in STEM instruction. Beginning with a driving question to frame the STEM content, IBL promotes inquiry and critical thought by requiring students to define problems, formulate relevant questions, analyze and evaluate information, create and refine products, and present and defend their work to a public audience. The IBL approach provides the opportunity for all students not only to learn STEM content, but also to turn that content knowledge into relevant, real-world applications that engage them in action-oriented work.

RTI uses five core characteristics to guide their IBL approach and support successful outcomes. This IBL approach emphasizes embedding a common language and instructional strategy among teaching staff. Support includes:

a. a needs assessment for each context around pedagogical shifts to create
b. conditions to help cultivate a culture of IBL instruction that leads to
c. the design of IBL units by teachers that give both teacher and students ownership in appropriate places of the project and
d. support teachers with early implementation so that they may experience some degree of success.

A recent (February 2019) RTI analysis of pre- and post-evaluations of a four-part inquiry-based learning (IBL) professional learning program in Winston-Salem/Forsyth County Schools (NC) indicated 41% growth in educator "confidence in understanding of IBL" and 40% growth in "confidence in using a backwards design process to develop IBL lessons and units." This kind of deliberate, cohort-based growth in teacher efficacy provides one of the strongest known links between adult educator practice and student achievement in terms of effect size (Hattie, 2012).

Much of the learning in IBL occurs when students investigate, explore, and discover new learning to develop an informed response to a central driving question. Through this process of inquiry and discovery, students learn to work collaboratively. They learn to evaluate themselves and others, solve problems, and refine their work. According to one teacher in a study conducted by MIDA Learning Technologies (2016), "it was not about 'did they get the right answer, but it was about the process and how they did the work'" (Speziale et al., p. 37). This emphasis on process requires a shift in teacher thinking toward a student-centered, inquiry-driven approach that is supported through both professional learning sessions and ongoing coaching.



Support for inquiry-based teaching and learning must encompass several different elements: understanding what is meant by inquiry-based teaching and learning and knowing the advantages supported by research and evidence; understanding the change process that occurs when teachers are learning to teach through inquiry and students are learning to learn through inquiry so that all of their concerns can be anticipated and support can be tailored to meet their evolving needs; and providing a coordinated support system that maximizes the staff's opportunity to grow and succeed in teaching through inquiry (National Research Council, 2000).

IBL represents powerful strategies to make STEM instruction more engaging for students. Making learning purposeful and meaningful for students can increase students' interest and can make them more likely to engage and succeed with learning rigorous content (Hulleman & Harackiewicz, 2009). Additionally, students feel motivated to participate in tasks that engage them in a collective endeavor and that they perceive as valuable (Quay, 2017).

Inquiry-based approaches to teaching and learning can lead to an increase in overall student achievement and a decrease in the achievement gap between high-achieving and low-achieving students. Kahle, Meece, and Scantlebury (2000) found that an inquiry-based approach led to increased engagement among students as well as an increase in achievement scores of African American students and a narrowing of differences in achievement between male and female students.

Professional Learning and Instructional Coaching Support to Create the STEM Spark

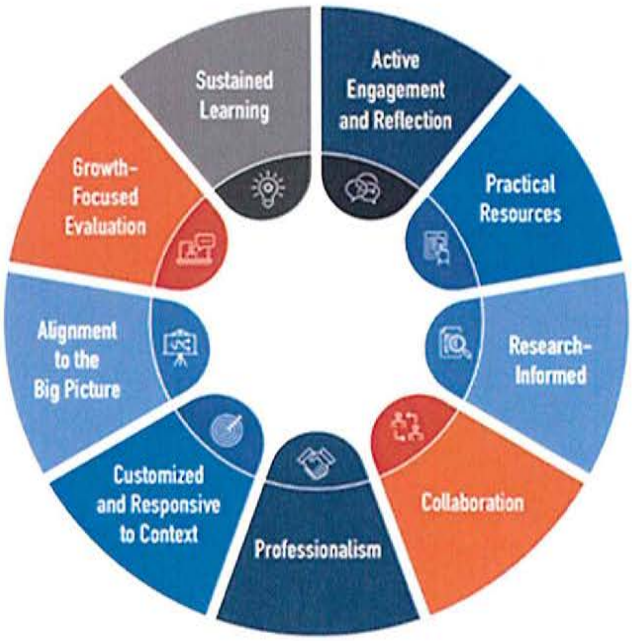
In order to support high quality teaching and learning, RTI integrates three research-based approaches to coaching and professional learning facilitation. First, Dr. Jim Knight's seven principles of partnership promote teacher engagement with coaching, identification of relevant and meaningful goals, and focus on student learning (2007). Second, Dr.'s Costa and Garmston's cognitive coaching model supports people in becoming more reflective and transforming mental models of how new situations are addressed based on changes in practice, beliefs, and dispositions (2006). Third, Elena Aguilar's transformational coaching practices provide perspectives for supporting recipients through inquiry, change management, systems

thinking, understanding themselves as adult learners, influences of systemic oppression, emotional intelligence, and compassion (2013). This three-pronged approach to coaching is a non-evaluative model that aims to develop the practices, common language, and reflection techniques of educators to move proactively toward improved teacher and student outcomes. Site-based school support is concentrated on the quality and rigor of instruction in classrooms, self- efficacy of instructional staff, and SEL and relational supports that are often needed in communities in poverty.

Professional learning workshops introduce educators to new approaches and strategies, while job-embedded instructional coaching stimulates the self-reflection and self-analysis needed to improve or refine instructional effectiveness (Veenman & Denessen, 2001). While just 19% of teachers implemented a new practice in their classroom after attending a workshop that included modeling, practice, and feedback, 95% of teachers did so when coaching was added (Bush, 1984). Because coaching is essential for implementing new practices, it will be provided to staff operating at both the classroom as well as administrative level at Bessemer.

As part of the IPG effort, RTI will support Bessemer's coaches with co-led professional learning. These efforts will be guided by the following nine design tenets (Bill & Melinda Gates Foundation 2014; Darling-Hammond 2005; Learning Forward 2016):

1. **Active Engagement and Reflection** Professional learning is experiential in nature; participants move, read, write, think, discuss, and reflect on experience to develop knowledge and skills.
2. **Practical Resources** Participants receive tools and resources that can be immediately used in classroom, school, and district contexts
3. **Research-Informed** Professional learning is connected to a research-base that supports learning strategies, content, and targeted outcomes
4. **Collaboration** Participants engage in purposeful collaboration to share ideas, address problems of practice, build expertise and develop networks of support
5. **Professionalism** Facilitators are well prepared and well versed in implementation strategies; teachers are treated as professionals who bring valuable experience to the learning
6. **Customized and Responsive to Context** Professional learning is co-planned with school and district personnel to ensure contextual relevance and use of appropriate data
7. **Alignment to the Big Picture** Professional learning is deliberately connected to goals and curriculum; coherence with school/district goals and practices is prioritized
8. **Growth-Focused Evaluation** Professional learning includes opportunities for personal and team reflection while embedded evaluation contributes to continuous tailoring and improvement
9. **Sustained Learning** Support following professional learning is purposeful, ranging from virtual check-ins to job-embedded coaching, to support educator needs and capacity building



Cohort-Based Approach

RTI and DRIVE will use a cohort approach for professional learning efforts of core instruction whenever possible to provide additional structure and resources to help Bessemer's staff sustain and reinforce gains. Cohort models of professional learning and skill development are effective because they give individuals ample opportunities to build culture, community, and continuity in pursuit of collectively determined goals (Browne-Ferrigno & Muth, 2008). Cohort-model program delivery is also associated with a higher rate of student persistence (Reynolds & Hebert, 1998), student achievement, and stronger professional networks (Muth & Barnett, 2001). Education leadership scholars Browne-Ferrigno and Maughan add that cohort models may, over time, evolve into "communities of practice" (CoPs) that can "expand an individual's opportunities for professional growth and career advancement through sharing of expert knowledge and development of collegial relationships" (n.d.).

7.) The Entity must describe the actions it has taken, or will take, to determine its (the Entity's) capacity to provide adequate resources and related support to each CSI School, as identified in the Entity's application in order to implement, fully and effectively, the necessary research-based school improvement strategies and interventions of the Partner it has selected on the first day of the first school year of full implementation (2020-21):

Response: GCS district leadership has taken and will continue to take action to provide adequate resources and support to each CSI school. First, this applicant school is currently a Restart school and through this designation has supports that include but are not limited to flexibility in teacher observations, licensure, multiplication/cursive writing, KEA assessments, teacher incentives, and academic planning calendar.

Second, this applicant school is part of a district-wide implementation of the LEA's first comprehensive, integrated, high-quality ELA and math curricula. Placing high-quality resources consistently across content areas and grade spans is a strategic priority to ensure students gain foundational skills to be successful. It is also essential for teachers to draw from excellent lessons and references contained in the materials that are aligned to standards. The goal is for every GCS student to have access to challenging lessons with on-grade assignments and engaging activities.

In addition, the district has entered into partnerships with technical assistance providers to coach teachers in the skillful use of these resources and to share professional learning with principals, curriculum facilitators, and school support officers in providing instructional leadership to teachers. The district has invested in a tiered coaching system for curriculum implementation that prioritizes new and lateral-entry teachers. Schools, including this applicant school, with higher numbers of these inexperienced teachers are allocated additional days of job-embedded coaching. The Offices of Federal Programs and Restart, which work closely already with this applicant school, will guide integration of the school's research-based innovation in tandem with these other instructional initiatives. As we note in Question 9, the district has mapped a framework for regular meetings with the schools and technical assistance partners.

Third, to ensure implementation readiness on Day 1, the district's Federal Program office and Office of Restart will meet with the school and selected Partner before the first day of the school year to also look at how the research-based innovation meshes with any other programming in the school. Additionally, the Federal Programs and Restart Office teams will convene monthly reviews during the planning period, and quarterly thereafter, of grant budget implementation timelines, required data, and expenditures. The goal will be to ensure that IPG improvements are implemented with fidelity, issues are addressed quickly, and funds are expended on time and in concert with Restart and Title I Funds. These reviews will be attended by the school coach, principal, School Support Officer (SSO), Federal Programs Executive Director and the Director of Restart Programming.

Fourth, the district's Parent Academy will work with this applicant schools to promote family engagement to understand and support this research-based innovation. Examples include but are not limited to the

following: family nights with dinner and hands-on programs that allow parents and family members to experience new equipment and learning firsthand; opportunities to connect with representatives from GCS magnet and CTE academy programs that students could move into after leaving this applicant school; or career and college nights with representatives from industry, community college and local universities.

8.) The Entity/School must describe actions it has taken, or will take, to align other resources (for example, Title I or CSI funding, etc.) with the selected intervention:

Response: GCS will continue to provide all the resources it provides non-IPG schools. This includes Title I funding and staff allotments as well as support from district leaders and content specialists.

Opportunity Culture Instructional Coaching Model

Identified as a Restart school, Bessemer operates an Opportunity Culture model of instructional coaching. We first began this model in 2019 with three instructional coaches, each serving one grade level in third, fourth and fifth grades. In this, the second year of implementation, we exchanged our curriculum facilitator for an additional instructional coach, expanding the number of coaches to four. Two of those coaches each serve two grade levels – one serves kindergarten and first grade; the other serves third and fourth grades. The other two coaches each serve one grade level – one serves second grade; the other serves fifth grade.

Working in concert with the IPG Coach, these coaching positions will be the primary conduits for getting STEM and SEL into grade-level instruction on a daily basis. They and will also be the key capacity-storage batteries for sustaining STEM and SEL implementation over time.

Title I

Title I funding is a key source of funding for Bessemer. Among other things, it is used to fund the Technology Teacher Assistant position that this application proposes to level up to a certified teacher. Title I funding also provides nearly all the school's physical and digital technology resources. During the course of this grant, Title I funding will continue to build the student-to-device ratio and wireless internet saturation while also sustaining the four-year device replacement cycle. The district Title I office also provides technical support for budgeting, planning, and meeting federal management and reporting requirements. This support would continue during the grant period.

Comprehensive Support and Improvement

As a function of being identified as a Comprehensive Support and Improvement school under ESSA, Bessemer completed a comprehensive needs assessment with a team from the North Carolina Department of Public Instruction in November 2019. This will provide an opportunity to identify key deficiencies and opportunities as well as to develop plans to redress the deficiencies and capitalize on the opportunities – one of which key opportunities we believe STEM and SEL will be.

Staff Allotments

GCS will continue to provide Bessemer with staff allotments based on our average daily membership. This includes the Media Specialist role, which will be a key element of the STEM infusion.

Learning Area

Because GCS is a large district, the schools within GCS are divided into eight learning areas, each of which is supported by a School Support Officer. This allows the district to provide schools with more differentiated support and to provide principals with stronger mentoring relationships and faster support response times.

Bessemer is one of nine schools in Learning Area Three and is supported by Chris Tolliver. Mr. Tolliver served as principal for Eastern Guilford Middle School from 2014 to 2017. During his time at Eastern Guilford Middle, Tolliver led the school to increases in all state EOG and end of course tested areas, an

increase in the school letter grade from a D to a C, exceeded expected growth as a school based on the NC EVAAS measure, and brought the school off the state-identified low-performing list.

Prior to his appointment as principal, Tolliver served as an assistant principal at James B. Dudley High School and a teacher at Johnson Street Global Studies, where he was recognized as the Teacher of the Year in 2008.

Tolliver received his undergraduate degree in Elementary Education at Concord University in Athens, West Virginia, and a master's degree in School Leadership from High Point University.

District Content Specialists
The district's Teaching, Learning and Professional Development department provides support from content specialists across all aspects of the instructional program. Of those, STEM, Blended Learning, and Library Media Services directly collaborated on the preparation of this application and would be heavily involved in the implementation of the IPG grant, if awarded. Specialists from the areas of Career and Technical Education, Math, and Professional Learning and Leadership would also be involved in implementation should the grant be awarded.

Technology Maintenance and Problem Solving
The district's Technology Services Department will continue to provide the expertise and manpower to maintain and solve problems with Bessemer's STEM equipment. As this requires substantial competencies for which Bessemer does not have a dedicated position, all equipment purchased for the STEM implementation will be equipment approved for support by the Technology Services Department or that is accompanied by a support package that is affordable on a perpetual basis after the grant period.

Guilford Parent Academy
The district's Guilford Parent Academy (GPA) works to bridge the gaps for student success by engaging parents and involving them in their children's education. GPA will continue to provide consultation and support to Bessemer in designing and improving ways to engage and communicate with parents.

9.) The Entity must describe how it will provide effective oversight and support for implementation of the research-based school improvement strategies if this school is awarded the IPG:

Response: Guilford County Schools will provide effective oversight and support for the school's implementation of research-based school improvements through specialized training, regularly scheduled budget and expenditure reviews, and ongoing communications. The Executive Director of Federal Programs and the Director of Restart Programming will coordinate these activities.

1. **Training** – Upon hiring, school coaches will participate in district-led training in budget and spending processes led by Financial Services and Federal Programs team.
2. **Team Reviews** – Federal Programs and Restart Office teams will convene monthly reviews during the planning period, and quarterly thereafter, of grant budget implementation timelines, required data, and expenditures. The goal will be to ensure that IPG improvements are implemented with fidelity, issues are addressed quickly, and funds are expended on time and in concert with Restart and Title I Funds. These reviews will be attended by the school coach, principal, School Support Officer (SSO), Federal Programs Executive Director and the Director of Restart Programming.
3. **Communications** – Updates from these IPG implementation meetings will be shared with the Chief Academic Officer through project specific meetings as appropriate. The CAO will share quarterly updates with the Superintendent. The Board of Education will receive an annual progress report on the participating schools' work during a regularly scheduled Board business meeting. Further, the Federal Programs and Restart Offices will act as a communications liaison between the school

coaches, principals, SSOs, and DPI as needed to ensure grant implementers are up-to-date on deadlines, changes, and other factors during the term of the grant.

10.) The Entity/School must describe how it will meaningfully engage (a) families and the (b) community in the implementation of the selected research-based school improvement strategies on an ongoing basis:

(a) Response: We believe strongly that parent engagement is an essential component of students' success. We are also fully cognizant of the many challenges poverty presents to this engagement. Most notably among these are a high mobility rate, a lack of transportation, a lack of affordable childcare, the demands of working multiple jobs and off-peak shifts, language barriers, and parents' negative school experiences as children and young adults.

To bridge these obstacles, we will continue to develop our Parent Advisory Council and the opportunities it provides for parents to positively engage with staff, learn how to support their children's academic and social-emotional growth at home, and advance their own intellectual and professional growth. We will also work with GCS' Guilford Parent Academy to design and improve methods for engaging and communicating with parents.

With respect to the grant, one of the elements that will be developed as a part of the grade-level, standards-aligned curriculum are Home Connection Kits – digital resources for each major module of the curriculum at each grade level that allow parents to support their child's STEM learning. In addition to questions and talking points that parents can use to discuss the students' learning, the kits would also include digital videos and interactive activities that students and parents can use to support and extend the students' learning at home with only a smartphone. The resources would be delivered to students and parents through Bessemer's website.

We will also explore how our rejuvenated facilities can be used to support parent learning. This might include, for example, partnerships with Guilford Technical Community College to provide at our school courses that are of high interest to our parents, such as courses for English language learners, financial literacy, parenting and child development, or resume writing.

With the help of DRIVE, we will explore parent interest in a series of family workshops to help our community learn effective ways to improve social-emotional learning at home. These workshops will include scientifically proven theories on human motivation and help parents/guardians develop some of the same skills and practices that the teachers and staff of Bessemer will learn. This creates a consistency between the SEL development students are getting at school and the development they are getting at home.

(b) Response: We also recognize the importance of engaging partners in our local, national, and global community. At the local level, we will explore with our Parent Advisory Council and existing community partners how to most effectively engage them in the social-emotional wellness of our children as well as the ongoing support of our STEM Spark initiative. This might include bringing in speakers to discuss specific STEM topics or careers, visits to STEM facilities in one of the many colleges and universities located in Guilford County, or visits to STEM industries in the county such as Qorvo semiconductor company or Syngenta. We would also explore extending our partnership with Communities in Schools to offer STEM based experiences in our facilities for our students afterschool.

On the state level, we will explore additional college and industry visits, particularly in the Research Triangle Park area. On the national and global level, we will explore how we can use video calling technology to

expose our students to cultures and geographies of interest, to experts in various fields, to other students in faraway places, and generally use the technology as a window on the world.

11.) The Entity must describe how it will sustain the reforms after the funding period ends (beginning with the 2023-24 school year):

Response: The primary needs for sustainability are twofold:

1. internal capacity to maintain high-quality instruction, periodic curricular updates, and equipment maintenance and support; and
2. funding to sustain the STEM specials teacher role, replenish consumables, and maintain the four-year refresh rate on devices.

Internal Capacity

The objective of providing enhanced STEM Spark support to Bessemer is to position it for sustained and improved student achievement. Because the intensity of support in school turnaround efforts is generally not sustainable long-term, a thoughtful sustainability plan is essential, typically executed over multiple years (Meyers 2017). In support of this plan, RTI and DRIVE will use a gradual-release model to implant capacity based on the concept of "I do, we do, you do" starting early in the engagement so that, by the end, there is sufficient capacity to sustain improvement.

The RTI and DRIVE teams also know that staff attrition is often a challenge in low performing schools (Henry, et al 2017) and is, in fact, a key challenge for Bessemer. To help avoid turnaround being dependent on individual heroes, RTI and DRIVE will purposefully engage district-level staff in support and approach of every engagement. They will also model specific techniques that are easily replicated across multiple settings and that may be applied to multiple challenges. Professional learning will be scaffolded to transition techniques to GCS practitioners who are in the optimal position to sustain the district's high expectations for teaching and learning. One example of this type of scaffolding is the transition from small-group practice with lesson-tuning protocols to school-wide instructional rounds to district-wide peer school reviews. Notably, shared ownership is not delayed to a later phase of engagement; rather, it occurs immediately based on the co-planning efforts to reinforce buy-in based on authorship, not just ownership (TED 2010).

Our plan will build capacity at Bessemer to provide, improve, and sustain the intensive STEM Spark work following the conclusion of the grant. Bessemer will establish sustainable capacity through several key features:

1. District hired implementation coaches will lead service delivery and technical assistance in partnership with external support from RTI and DRIVE.
2. A gradual-release approach for specialized professional learning and external consulting support across the life of the program to transfer expertise to Bessemer and GCS staff.
3. School-based leadership teams and instructional coaches that have developed new professional capacity to maintain processes and procedures as well as teach and model effective practices for school staff.
4. Effective SEL capacity development will elevate overall school culture, which has proven to have a positive inertia on achievement, engagement, discipline incidents, and teacher retention for years after the interventions, including through leadership changes.
5. Use of local, in-kind capacity to enhance program activities and reduce redundancies through school planning, professional learning communities, community inclusion, and staff development efforts (USED, 2017)

Funding

The bulk of the expenses of this application are one-time upfit and launch costs. This includes costs for establishing a STEM lab; reimagining the space and purpose of the Inquiry Center to support STEM and inquiry-based learning; developing the standards-aligned STEM curriculum at each grade level; and building the instructional and coaching capacity to deliver inquiry-based STEM instruction and SEL development in core classrooms, the STEM lab, and the Inquiry Center.

Once the initiative is launched and the internal capacity is established, the annual sustaining costs include maintaining the STEM specials teacher position, replenishing consumables, and maintaining the four-year refresh rate on devices. These costs can be absorbed into Bessemer's Title I budget as well as be supported by funds associated with Bessemer's status as a Comprehensive Support and Improvement school.

12.) The School must describe how it will implement, to the extent practicable, in accordance with its selected IPG Partner, one or more research-based school improvement strategies:

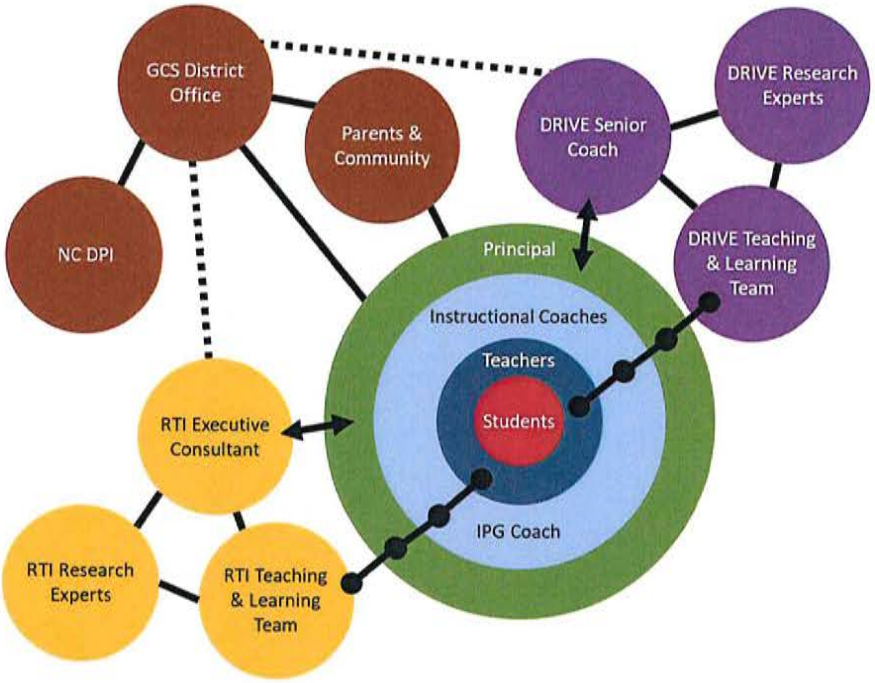
Response: The concept of our STEM Spark initiative is to make engaging, inquiry-based STEM learning a third and indispensable prong of our students' elementary experience alongside explicit reading and math instruction. We would accomplish this by providing daily classroom instruction in STEM that is integrated with and supplemented by a new, once-weekly STEM specials class and a re-imagined, once-weekly Media specials class. An intentional social emotional capacity-building program at the classroom level would help students develop the self-regulation, perseverance, and collaboration abilities they need to fully engage in a productive STEM experience.

The core elements of this initiative would include:

- **STEM Lab**: Remove the desktops and tables in our computer lab and upfit it with the furniture, equipment, and consumables needed to make it a STEM lab. We would also incorporate a class set of laptops so that devices can be inserted into the experience where appropriate while retaining the ability to have a 1:1 experience when necessary.
- **Certified STEM Teacher**: Hire a certified teacher with a demonstrated competency in STEM and inquiry-based learning. We would prioritize the capacity development of this teacher as s/he would become a key component for sustaining internal capacity.
- **Weekly STEM Special:** Replace our current weekly technology specials class with a STEM special that provides students with highly engaging, standards-aligned, inquiry-based STEM learning opportunity once each week.
- **Re-imagine a Modern, STEM-Inspired Media Center:** Design and upfit the Media Center to provide space to support STEM learning and inquiry, as well as high flexibility for multi-functional other purposes. The upfit would include a classroom set of tablet devices to support technology access in that space as well as an infusion of appropriate books to support inquiry-based learning.
- **Weekly Media Special:** Adjust the current weekly medial specials class to incorporate supplemental STEM and inquiry learning experiences, provide access to books that support inquiry, and provide space and facilitation for peer collaboration.
- **K-5 STEM in Core Classrooms:** Develop standards-aligned, inquiry-based STEM learning activities for K-5 science instruction and provide teachers the training and coaching necessary to deliver it. This would also include digital and physical resources to support inquiry, as well as a digital classroom in Canvas for students and home-connection kits.
- **Social Emotional Capacity Building:** Provide teachers with professional development and job-embedded coaching to build their capacity to provide the social emotional supports students need to self-regulate, persevere and collaborate with their peers in order to fully engage in a productive STEM experience.

- **Leadership Planning Team**: Team of school leaders responsible for the overall vision and implementation of STEM Spark. Guided by RTI, this team will develop acumen in change management and project management tools and strategies to assist them as they develop, monitor and assess STEM Spark over the duration of IPG.

Effective implementation begins with a thoughtful management approach. In tandem with our partners, we will develop an effective organizational structure, which may resemble the structure, below.



This approach positions school leaders to be the empowered interface with the district, parents and the community, and the RTI and DRIVE partner teams. This positioning nurtures leadership capacity building and reinforces sustainable practices.

13.) The Entity must describe how it will monitor the CSI School, that receives IPG funds including:

a.) Establishing annual goals for student achievement on the State's assessments in both reading/language arts and mathematics; and,

b.) Measuring progress on the leading indicators as defined in the Assurances Section of this application:

(a) Response: GCS has established annual goals for Bessemer's student achievement, behavior, and absenteeism. These goals are reflected in our tracking log.

(b) Response: GCS's district office will review these goals annually while Bessemer, RTI and DRIVE will monitor progress towards the goals during their periodic review sessions at the beginning, middle and end of each year.

14.) January 2020 – June 30, 2020 is considered "Planning" for purposes of this Grant. Please provide a description of the planning activities, the timeline for implementing those activities, and a description of how those activities will lead to successful implementation and start of the first year of "full Implementation" on July 1, 2020:

January – June 2020 (Planning Year):

Response:

Activity	Expected Timing	Outcome
IPG launch and organization including facilitated planning sessions focused on project structure (roles and responsibilities), establish work teams, define communication cadence, scheduling (with an emphasis on minimizing time away from instruction), finalize IPG coach job description and post, establish data collection procedures, introduce support team from RTI and DRIVE.	January - March	Project plan established to guide IPG implementation
Establish and refine STEM Spark vision across key IPG elements with input from stakeholder. Complete a facilitated change management diagnosis to identify barriers and strategies that best match the situation. **Complete Comprehensive School Climate Audit** including stakeholder focus groups and building walkthroughs to acquire a detailed assessment of the readiness for effective SEL instruction.	February - March	Clear vision and change management diagnosis are completed
Clarify the action hypothesis for Bessemer (why we believe it will work and what it will take to drive success). Review and map existing initiatives to ensure connections are made to reinforce priorities	February - March	Hypothesis for improvement is prepared
Define and institutionalize measurable goals for success (short term) aligned to the vision and action hypothesis of Bessemer. Define any outstanding needs regarding data analysis and prepare process for baseline assessments as needed.	February - March	Realistic goals and milestones are established. Baseline determined.
Engage Community and Staff in planning efforts through structured engagement opportunities. Establish opportunities for ongoing external engagement in the IPG growth process. Begin promotion and needs analysis of parent/community workshop series to begin Fall 2020.	March - April	Structure established for regular input from critical stakeholders
Engage in a facilitated root cause analysis process around key issues for Bessemer with leadership, staff, district, and community teams. Plot root causes with addressability and match planning strategies.	March - June	Assessment of underlying cause of challenges to better target support activity
Prepare a customized blueprint for success that forms a cohesive plan for improvement that uses each of the	March - June	Completed comprehensive plan to

	described activities during the planning phase. This includes a comprehensive plan for professional development and support aligned to the unique planning outcomes for Bessemer		guide the IPG efforts of Bessemer
	Complete the planning and begin the upfit of the STEM lab and Media Center, utilizing the expertise and lessons learned from other schools who have succeeded in this process.	March - June	Both spaces are re-imagined and upfit on-schedule for completion by August.

15.) The School must include a timeline delineating the steps it will take to implement the selected research-based school improvement strategies identified in this school's application:

2020–2021 (Full Implementation Year):

Response:

Leadership Planning Team	• Summer Leadership retreat • Series of design meetings focused on monitoring, feedback, data check points, troubleshooting and adjustments to STEM Spark implementation. • Utilize retreat setting to strengthen strong collegial relationships amongst the leaders. • Develop vision of the new story for Bessemer. • Establish reference points for how Bessemer leadership will treat and interact with one another and the other stakeholders. • Beginning of year check-point timed with previous year EOG data release to review outcomes versus goals and set new metrics for the year • Midyear continuous improvement assessment that includes stakeholder engagement and plan adjustment based on emerging variables. This is also a time to revisit the original action hypothesis and assess and needed tuning • Refine blueprint during summer planning period, including development of implementation schedule for 2021-2022 year. Reassess progress towards identified goals. • Individual leadership coaching support for principal, assistant principal, and/or instructional coaches.
STEM Lab and Media Center	• Upfit is completed by August 15. • Replenish consumables as needed.
STEM Specials Teacher and Instructional Coaches	• Series of summer workshops for a small cohort (including the STEM teacher) on adopted/adapted STEM curriculum units (as determined in planning year • Study visits/site visits for cohort to see another elementary school(s) with implementing STEM • Site visits to STEM industries in the broader area
STEM Specials Class	• Coaching support for implementation of STEM curriculum and EIE units
K-5 STEM in Core Classrooms	• Series of workshops for full staff on the STEM curriculum, the engineering design process, and fundamentals of IBL strategies and practices

	• Job-embedded coaching support to shift instruction towards IBL practices
Social Emotional Capacity Building	• Coach-the-coaches summer workshop to prepare them to support teacher capacity building in STEM and SEL. • Back-to-school workshop for all staff to establish competency in core social emotional practices • Job-embedded coaching in developing greater mastery of core social emotional practices • Periodic after-school and teacher workday workshops to refresh and advance social emotional support capacity.

2021–2022 (Full Implementation Year):

Response:

Leadership Planning Team	• Summer Leadership retreat • Series of design meetings focused on monitoring, feedback, data check points, troubleshooting and adjustments to STEM and SEL implementation. • Beginning of year check-point timed with previous year EOG data release to review outcomes versus goals and set new metrics for the year • Midyear continuous improvement assessment that includes stakeholder engagement and plan adjustment based on emerging variables. This is also a time to revisit the original action hypothesis and assess and needed tuning. • Refine blueprint during summer planning period, including development of implementation schedule for 2022-2023 year. Reassess progress towards identified goals. • Individual leadership coaching support for principal, assistant principal, and/or instructional coaches.
STEM Lab and Media Center	• Replenish consumables as needed
STEM Specials Teacher and Instructional Coaches	• Series of summer workshops for a small cohort (including the STEM teacher) on additional STEM curriculum units
STEM Specials Class	• Coaching support for implementation of STEM curriculum and EIE units
K-5 STEM in Core Classrooms	• Summer planning time for teachers to align IBL to K-5 science standards • IBL refresher workshop for new staff • Series of workshops for a cohort of 3-5 teachers focused on deepening IBL practices and integrating IBL across disciplines • Coaching support for 3-5 cohort to integrate IBL across subject areas • Study visits/site visits for cohort to see another elementary school(s) with implementing STEM

	• Site visits to STEM industries in the broader area
Social Emotional Capacity Building	• Coach-the-coaches summer workshop to refresh and deepen coaches' preparedness to support continued teacher capacity building in STEM and SEL • Back-to-school workshop for all staff to refresh and deepen competency in core social emotional practices • Job-embedded coaching in developing greater mastery of core social emotional practices. • Periodic after-school and teacher workday workshops to refresh and advance social emotional support capacity

2022–2023 (Sustainability Year):

Response:

Leadership Planning Team	• Summer Leadership retreat • Series of design meetings focused on monitoring, feedback, data check points, troubleshooting and adjustments to STEM Spark implementation. • Beginning of year checkpoint timed with previous year EOG data release to review outcomes versus goals and set new metrics for the year • Midyear continuous improvement assessment that includes stakeholder engagement and plan adjustment based on emerging variables. This is also a time to revisit the original action hypothesis and assess and needed tuning • Refine blueprint during summer planning period, including development of implementation schedule for 2022-2023 year. Reassess progress towards identified goals. • Individual leadership coaching support for principal, assistant principal, and/or instructional coaches.
STEM Lab and Media Center	• Replenish consumables as needed
STEM Specials Teacher and Instructional Coaches	• Series of summer workshops for a small cohort (including the STEM teacher) on additional STEM curriculum units
STEM Specials Class	• Coaching support for implementation of STEM curriculum and EIE units
K-5 STEM in Core Classrooms	• Summer planning time for teachers to align IBL to K-5 science standards • IBL refresher workshop for new staff • Series of workshops for a cohort of 3-5 teachers focused on deepening IBL practices and integrating IBL across disciplines • Coaching support for 3-5 cohort to integrate IBL across subject areas

	• Study visits/site visits for cohort to see another elementary school(s) with implementing STEM • Site visits to STEM industries in the broader area
Social Emotional Capacity Building	• Back-to-school workshop for all staff to refresh and deepen competency in core social emotional practices. • Job-embedded coaching in developing greater mastery of core social emotional practices • Periodic after-school workshops to refresh and advance social emotional support capacity

(D) BUDGET: An Entity must include a budget that indicates the amount of school improvement funds the Entity will require each year if this CSI School is awarded the IPG:

Note: An Entity's budget should cover all of the years of implementation (4) and be of sufficient size and scope to implement the selected Partnership in the CSI School, plus the salary and benefits of the IPG School Coach, plus any additional funding the applicant school will require to carry out the research-based school improvement strategies found in this application.

Note: An Entity's budget should not exceed:

2019 – 2020 (Planning): $200,000
2020 – 2021 (Full Implementation): $500,000
2021 – 2022 (Full Implementation): $500,000
2022 – 2023 (Sustainability): $300,000

Total should not exceed $1,500,000 (as a reminder these funds are in ADDITION to CSI Funds – PRC105)

Note: Indicating a budget does not guarantee the exact amount awarded. The amount awarded will be determined by the SEA based on availability of funds.

Example: Entity Response for (3.5) Years

SCHOOL (SAMPLE) BUDGET				
Year 1 2019-20 (Planning)	**Year 2 2020-21 (Full Implementation)**	**Year 3 2021-2022 (Full Implementation)**	**Year 4 2022-2023 (Sustainability)**	**Four - Year Total**
$146,000	$475,000	$480,000	$295,000	**$1,396,000**
SCHOOL (PROPOSED) BUDGET				
Year 1 2019-20 (Planning)	**Year 2 2020-21 (Full Implementation)**	**Year 3 2021-2022 (Full Implementation)**	**Year 4 2022-2023 (Sustainability)**	**Four - Year Total**
198,928	499,677	499,127	298,559	**1,496,291**

Please provide a justification for each year of the budget that was entered above. This justification should include estimated costs for each initiative included in the application which should total annual proposed costs (include estimate partnership costs, IPG School Coach salary, supplies, additional contracts, recruitment and retention pay (if applicable), etc. This is just an ESTIMATE; those that are awarded with the IPG will have the opportunity to revise with "actuals" once awarded:

Justification for 2019-20 (Planning) budget:

Response: See the estimated line-item budget, below, on page 34.

Justification for 2020-21 (Full Implementation) budget:

Response: See the estimated line-item budget, below, on page 34.

Justification for 2021-22 (Full Implementation) budget:

Response: See the estimated line-item budget, below, on page 34.

Justification for 2022-23 (Sustainability) budget:

Response: See the estimated line-item budget, below, on page 34.

The following are estimated line-item totals that justify the annual totals listed above, on page 34.

	Planning Jan-Jun 2020	Year 1 2020-21	Year 2 2021-22	Sustainability Year 2022-2023
Personnel				
IPG Coach Salary & Fringes		117,344	117,344	106,676
STEM Teacher Salary & Fringes	-	100,100	91,000	91,000
Principal Incentive		20,000	20,000	
Total Personnel	**-**	**237,444**	**228,344**	**197,676**
STEM Lab				
Minor Upfit	7,500		-	-
Equipment	14,350		15,000	
Furniture	15,000			
STEM Kits	37,484	5,000	3,000	1,900
Consumables		2,249	2,249	2,249
Afterschool Club Stipends		4,800	4,800	4,800
Total STEM Lab	**74,334**	**12,049**	**25,049**	**8,949**
Inquiry Center				
Minor Upfit	15,000		-	-
Equipment	21,000		14,000	7,000
Furniture	40,000		-	-
Total Inquiry Center	**76,000**	**-**	**14,000**	**7,000**
K-5 Classrooms				
STEM Kits		58,900	70,000	5,500
Consumables		3,534	3,534	3,534
Total K-5 Classrooms	**-**	**62,434**	**73,534**	**9,034**
Professional Development				
Summer Staff Stipends		17,550	9,450	
Supplies & Materials		1,000	500	
Facility Rental Fees		1,500	750	
STEM & Industry SITE Visits	1,080	1,200	1,200	1,200
Total PD	**1,080**	**21,250**	**11,900**	**1,200**
RTI Partner Costs				
K-5 Inquiry STEM Support	-	35,000	27,500	15,000
STEM Specials Support	-	25,000	25,000	12,500
Leadership Planning Support	20,000	25,000	25,000	17,500
Total RTI Partner Costs	**20,000**	**85,000**	**77,500**	**45,000**
DRIVE Partner Costs				
Climate Audit & Strategic Planning	11,700	-	11,700	-
Coaching Days	15,814	64,700	48,700	29,700
Leadership Summer Training Retreat	-	6,930	3,465	-
Staff Summer Launch	-	9,870	4,935	-
Total DRIVE Partner Costs	**27,514**	**81,500**	**68,800**	**29,700**
ANNUAL TOTAL	**198,928**	**499,677**	**499,127**	**298,559**
GRANT TOTAL	**1,496,291**			

(E) DATA TRACKING LOGS: The following pages include the Data Tracking Logs that need to be completed for the grade span(s) of the school to be served in this application. Complete the areas shaded in yellow for the applicable grade span(s). For schools serving more than one grade span, complete the applicable Tracking Log for each. Delete Tracking Logs not needed for grade span(s) not served.

Data Point	Year	20th Day	40th Day	60th Day	80th Day	100th Day	120th Day	140th Day	160th Day	180th Day	Final
ISS (Incident Count)	2018 – 19	0	0	0	0	0	0	0	0	0	0
	2019 – 20	0	0								
	Average										
	2020 – 21										
	2021 – 22										
	2022 – 23										
OSS (Incident Count)	2018 – 19	2	13	6	1	5	10	1	8	5	51
	2019 – 20	4	5								
	Average										
	2020 – 21										
	2021 – 22										
	2022 – 23										
Student Attendance %	2018 – 19	94.0	93.5	93.0	91.8	92.1	90.6	90.9	91.8	87.9	91.7
	2019 – 20	93.9	92.9								
	Average										
	2020 – 21										
	2021 – 22										
	2022 – 23										
Certified Attendance %	2018 – 19	96.8	90.5	88.2	92.1	91.9	90.5	95.3	95.9	96.7	93.4
	2019 – 20	96.7	96.0								
	Average										
	2020 – 21										
	2021 – 22										
	2022 – 23										

Math 3 (GLP / CCR %)	2018 – 19	29.3/13.4	Math 4 (GLP / CCR %)	2018 – 19	29.3/13.4	Math 5 (GLP / CCR %)	2018 – 19	37.0/19.8	Math Composite (GLP / CCR %)	2018 – 19	31.8/15.5
	2019 – 20			2019 – 20			2019 – 20			2019 – 20	
	Average			*Average*			*Average*			*Average*	
	2020 – 21			2020 – 21			2020 – 21			2020 – 21	
	2021 – 22			2021 – 22			2021 – 22			2021 – 22	
	2022 – 23			2022 – 23			2022 – 23			2022 – 23	
Reading 3 (GLP / CCR %)	2018 – 19	24.4/14.6	Reading 4 (GLP / CCR %)	2018 – 19	37.8/24.4						
	2019 – 20			2019 – 20							
	Average			*Average*							
	2020 – 21			2020 – 21							
	2021 – 22			2021 – 22							
	2022 – 23			2022 – 23							

2018 – 19 = Pre-Baseline Year
2019 – 20 = Baseline Year / Planning
2020 – 21 = Year 1 – Full Implementation Year
2021 – 22 = Year 2 – Full Implementation Year
2022 – 23 = Year 3 – Sustainability Year

Reading 5 (GLP / CCR %)	2018 – 19	34.6/21.0	Reading Composite (GLP / CCR %)	2018 – 19	32.2/20.0						
	2019 – 20			2019 – 20							
	Average			*Average*							
	2020 – 21			2020 – 21							
	2021 – 22			2021 – 22							
	2022 – 23			2022 – 23							
Science 5 (GLP / CCR %)	2018 – 19	49.4/40.7	Total Composite (GLP / CCR %)	2018 – 19	34.5/21.0						
	2019 – 20			2019 – 20							
	Average			*Average*							
	2020 – 21			2020 – 21							
	2021 – 22			2021 – 22							
	2022 – 23			2022 – 23							

Data Point Goals	2020–21	2021–22	2022–23	+ / -
ISS Incident #	0	0	0	
OSS Incident #	48	45	41	
Student Attendance %	92.7	93.2	93.7	
Certified Attendance %	94.4	94.9	95.4	
Math GLP / CCR %	36.6/17.9	41.4/20.3	47.8/23.5	
Reading GLP / CCR %	37.0/23.0	41.8/26.0	48.2/30.0	
Science GLP / CCR %	53.6/44.1	57.8/47.5	63.4/52.1	
Total Composite GLP / CCR %	39.3/24.0	44.1/27.0	50.5/31.0	