

Budget

Bethel-Tate Local (046318) - Clermont County - 2015 - Straight A Fund - Rev 0 - Straight A Fund - Application Number (73)

U.S.A.S. Fund #:

Plus/Minus Sheet (opens new window)

| Purpose Code | Object Code | Salaries 100 | Retirement Fringe Benefits 200 | Purchased Services 400 | Supplies 500 | Capital Outlay 600 | Other 800 | Total |
|----------------------------|-------------|--------------|--------------------------------|------------------------|--------------|--------------------|-----------|---------------|
| Instruction | | 149,207.00 | 23,053.00 | 57,600.00 | 198,000.00 | 1,512,900.00 | 0.00 | 1,940,760.00 |
| Support Services | | 138,307.00 | 21,368.00 | 135,400.00 | 0.00 | 0.00 | 0.00 | 295,075.00 |
| Governance/Admin | | 77,956.00 | 12,044.00 | 176,750.00 | 0.00 | 7,200.00 | 0.00 | 273,950.00 |
| Prof Development | | 77,176.00 | 11,924.00 | 425,025.00 | 5,000.00 | 0.00 | 0.00 | 519,125.00 |
| Family/Community | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Safety | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Facilities | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Transportation | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Total | | 442,646.00 | 68,389.00 | 794,775.00 | 203,000.00 | 1,520,100.00 | 0.00 | 3,028,910.00 |
| Adjusted Allocation | | | | | | | | 0.00 |
| Remaining | | | | | | | | -3,028,910.00 |

Application

Bethel-Tate Local (046318) - Clermont County - 2015 - Straight A Fund - Rev 0 - Straight A Fund - Application Number (73)

Please respond to the prompts or questions in the areas listed below in a narrative form.

A) APPLICANT INFORMATION - General Information

1. Project Title:
Building Leaders in STEM

2. Executive summary: Please limit your responses to no more than three sentences.

Eighteen school districts, in seven different counties, have collaborated for this grant to address the need for developing necessary skills in fifth grade students such as problem solving, critical thinking and perseverance to insure readiness and build interests for STEM career pathways. The Building Leaders in STEM ("BLIS") grant sets the foundation for a STEM-centered classroom by increasing the teacher confidence and content knowledge as teams of teachers participate in intensive professional development, year-long mentoring and an on-line discussion community to build a network of teachers who will support one another as students engage in real-life math and science challenges. The promising STEM program at Hill Intermediate School that serves gifted students in three collaborating school districts will be replicated in participating districts as Teacher Teams implement STEM strategies and develop units that challenge both gifted and typical students in each district's newly created, high tech STEM Center.

This is an ultra-concise description of the overall project. It should not include anything other than a brief description of the project and the goals it hopes to achieve.

1320 3. Total Students Impacted:

This is the number of students that will be directly impacted by implementation of the project. This does not include students that may be impacted if the project is replicated or scaled up in the future.

4. Please indicate which of the following grade levels will be impacted:

- | | |
|--|---------------------------------------|
| <input type="checkbox"/> Pre-K Special Education | <input type="checkbox"/> Kindergarten |
| <input type="checkbox"/> 1 | <input type="checkbox"/> 2 |
| <input type="checkbox"/> 3 | <input type="checkbox"/> 4 |
| <input checked="" type="checkbox"/> 5 | <input type="checkbox"/> 6 |
| <input type="checkbox"/> 7 | <input type="checkbox"/> 8 |
| <input type="checkbox"/> 9 | <input type="checkbox"/> 10 |
| <input type="checkbox"/> 11 | <input type="checkbox"/> 12 |

5. Lead applicant primary contact: - Provide the following information:

First Name, last Name of contact for lead applicant
Melissa Kircher

Organizational name of lead applicant
Bethel-Tate Local Schools

Address of lead applicant
3420 Ohio SR 125, Bethel, Ohio 45106

Phone Number of lead applicant
513-734-2271

Email Address of lead applicant
kircher_m@betheltate.org

6. Are you submitting your application as a consortium? - Select one checkbox below

- Yes
 No

If you are applying as consortium, please list all consortium members by name on the "Consortium Member" page by clicking on the link below. If an educational service center is applying as the lead applicant for a consortium, the first consortium member entered must be a client district of the educational service center.

[Add Consortium Members](#)

7. Are you partnering with anyone to plan, implement, or evaluate your project? - Select one checkbox below

Yes

No

If you are partnering with anyone, please list all partners by name on the "Partnering Member" page by clicking on the link below.

[Add Partnering Members](#)

B) PROJECT DESCRIPTION - Overall description of project and alignment with goals

8. Describe the innovative project: - Provide the following information

The response should provide a clear and concise description of the project and its major components. Later questions will address specific outcomes and the measures of success.

The current state or problem to be solved; and

According to the National Governors Association for Best Practices (2011), over the past 10 years, STEM jobs grew three times faster than non-STEM jobs. The average annual wage for all STEM occupations was \$77,880 in May 2009, significantly above the US average for \$43,460 for non-STEM occupations. However, students are not electing to pursue STEM careers. In 2011 more Bachelor of Science degrees were awarded to students in Business (365,093), Social Science/History (177,144) Psychology (100,893), Performing Arts (93,956) or Communications (83,274) than in Engineering (76,376) or Computer Sciences (43,072). (According to the US. Dept. of Education, National Center for Education Statistics, Higher Education General Information Survey.) The demand for STEM careers is rising, however, students are not electing to pursue STEM degrees. Furthermore, STEM skills are in high demand across the workforce, not just for STEM related jobs. Companies want employees with skills such as higher level thinking skills, teamwork problem solving, innovative solutions, and communications. Many students lack perseverance and the "growth mindset" needed to solve complex problems. The challenge to create an interest in STEM begins at the elementary school level. Research shows that in elementary schools about one third of all fourth grade students have a negative interest in science and that negative attitude increased to 50% by eighth grade. Studies point to inadequate preparation among elementary educators who struggle with issues such as limited science knowledge and pedagogical experience and the lack of confidence in teaching STEM. (National Center for STEM Elementary Education) Teachers of elementary students need the background and strategies necessary to teach STEM skills in order to educate students in STEM skills and build an interest in STEM careers at an early age.

The proposed innovation and how it relates to solving the problem or improving on the current state.

The Building Leaders in STEM ("BLIS") project seeks to advance and replicate a promising innovative STEM program that addresses the need to change the current state of how math and science are taught in order to build interest in science and meet this demand for STEM skills. Students will engage in lessons that are challenging and build an intrinsic desire for learning. Students will learn how to solve challenging problems at an early age so that future challenges do not overwhelm them. The BLIS project has three goals: (1) Raise fifth grade student achievement in math and science by developing curriculum that involves critical thinking and problem solving for gifted students and typical students, (2) Increase teacher knowledge and confidence in teaching STEM skills by providing intensive professional development and building professional learning communities, and (3) Build STEM skills necessary to be college and career ready by integrating exciting hands-on activities with on-line lessons and using electronic devices at the student level. In Fall 2010, Bethel-Tate Local Schools and Williamsburg Local Schools collaborated to share services and created a "STEM Center". Gifted students in fifth grade from both districts visit the STEM Center one day each week for face-to-face instruction that emphasizes problem-solving skills, teamwork, and communication with higher level math challenges and STEM projects. When students leave the STEM Center, the learning continues through a blended learning model where students log into Moodle to participate in discussion groups, online lessons, and enrichment. Results from the program have shown a significant academic improvement in science and math achievement as well as fostering a passion for STEM. Participating in this initiative will be 18 districts in seven counties. Teacher Teams for each district consist of fifth grade math, science and gifted teachers who will investigate the promising units developed at the STEM Center to analyze the strategies used and how to incorporate these into their classrooms. Professional development begins in August and continues with six sessions throughout the year. During these sessions Teacher Teams and their mentors engage in intensive training in strategies to transition lessons to be student-center and evidence-based, while solving real-world problems reflected in the modeled STEM Center units. Participants also meet as Professional Learning Communities ("PLC") by discipline (math, science, or gifted) to discuss implementation of these strategies in their content areas. Between sessions, participants continue to collaborate with their PLCs and mentors on-line as the strategies are applied in their classrooms. Teacher Teams build corresponding units using the same strategies that they learned in order to build their capacity to continue to improve the STEM program in future years. In June 2015, a fifth grade STEM Camp will be held for students expressing a love for math and science during the regular school year. The purpose of the STEM Camp is to nurture the students' passion in math and science with other students with similar interests. Teachers pilot their lessons at STEM Camp in order to practice and receive feedback from their mentors and fellow team members. This will also give teaches an opportunity to make modifications of their units and be better prepared to anticipate student questions and problem areas. This project builds a network of teachers who will gain experience, knowledge and confidence needed to teach STEM strategies and change how math and science are taught to students of all ability levels. Only by transforming how math and science are taught can schools expect changes in student achievement and interest in STEM.

9. Which of the stated Straight A Fund goals does the proposal aim to achieve? - (Check all that apply)

Applicants should select any and all goals the proposal aims to achieve. The description of how the goals will be met should provide the reader with a clear understanding of what the project will look like when implemented, with a clear connection between the components of the project and the stated goals of the fund. If partnerships/consortia are part of the project, this section should describe briefly how the various entities will work together in the project. More detailed descriptions of the roles and activities will be addressed in Question 16.

Student achievement (Describe the specific changes in student achievement you anticipate as a result of this innovation (include grade levels, content areas as appropriate) in the box below.)

The first goal of this project is to increase student achievement, specifically in the areas of math and science for all fifth grade students, including students achieving at a higher grade level. To address this goal the successful STEM program at Bethel-Tate Local School will be replicated for gifted and typical students. This program incorporates many higher order thinking skills as the students must justify their claims by supporting them with evidence as they investigate real world problems. This "claims and evidence" format will better prepare students for problem solving in math and science and for the rigorous demands of the Next Generation Assessments. The program also emphasizes perseverance, a learned trait that students must develop in order to attempt these challenges and assessments. Learning perseverance is critical, particularly in students who are used to knowing the answers immediately, so that they learn tools for problem solving and stay engaged. Building perseverance at a young age will begin preparing students for the challenges for advanced course work in high school or college. As students experience success solving complex problems in math and science at an early age, it generates more interests in the field of math and science rather than giving the perception that math and science are "hard". Many teachers of elementary aged students lack the background knowledge or confidence to generate lessons and ask rigorous questions in order to transform a math or science classroom into a STEM classroom. By changing how teachers teach, we change how learners learn. This change will be completed through the establishment of a STEM Center at each school, the rigorous comprehensive professional development of Teacher Teams and the generation of face-to-face and on-line STEM curriculum. Anticipated student achievement includes higher scores on the new performance and year-end math and science assessments, greater valued-added growth in math, more reasoning and evidence in responses, and the willingness to solve a rigorous challenges that may require multiple attempts and perseverance.

Spending reductions in the five-year fiscal forecast or positive performance on other approved fiscal measures (Describe the specific reductions you anticipate in terms of dollars and spending categories over a five-year period in the box below or the positive performance you will achieve on other approved fiscal measures. Other approved fiscal measures include a reduction in spending over a five-year period in the operating budget approved by your organization's executive board or its equivalent.)

Utilization of a greater share of resources in the classroom (Describe specific resources (Personnel, Time, Course offerings, etc.) that will be enhanced in the classroom as a result of this innovation in the box below.)

The second goal of this project is to utilize a greater share of resources in the classroom by enhancing personnel qualifications, adding more rigorous math and science curriculum in a blended learning format, and utilizing technology and science equipment to solve real-world problems. In the past, the standards and assessments measured skills at the knowledge and comprehension levels. The new demands of the curriculum and expectations to be college and career ready indicate the need for curriculum and instructional practices that involve critical thinking. During this grant, participants will undergo an intensive, comprehensive training to build competence for implementing a significantly different science and math program. Recognizing the difficulty this poses for individual teachers, the grant promotes the working in teams across eighteen districts as well as establishing district Teacher Teams in order to provide support to one another. As these Teacher Teams begin using these strategies and curriculum, mentors will observe and provide feedback and support for a successful transition. The curriculum is a blended learning model that incorporates face-to-face lessons with on-line assignments and discussions. In order to address all students entrance levels to these challenging problems, the curriculum will be differentiated by creating two corresponding courses, one for the typical students and one for gifted students. These courses will belong to the districts in perpetuity with no subscription fees or licensing fees. In addition to the modeled units, Teacher Teams will develop the capacity to create additional units. Teachers will receive math and science equipment and materials necessary for the implementation of the unit that engages students in hands-on activities that complement the on-line lessons. With reduced budgets and financial constraints, students often lack the opportunity to utilize technology on a regular basis. The creation of a STEM Center provides regular practice necessary to build 21st century skills. Incorporating technology enhanced lessons at an early age not only increases interest, but provides important skills needed in math and science. The Teacher Teams will be trained and have the ability to use this technology and can become teacher leaders in their schools. These Teacher Teams become models to other classroom teachers in their district thus enhancing the classroom instruction occurring in other math and science classrooms.

Implementing a shared services delivery model (Describe how your shared services delivery model will demonstrate increased efficiency and effectiveness, long-term sustainability, and scalability in the box below.)

The third goal of implementing a shared services delivery model is the heart and soul of this project. By participating in intensive professional development during the 2014-15 school year, teachers can implement new strategies, design new lessons and plan activities that better prepare students for the achievement tests beginning in 2015 and increase student interests in math and science. The majority of the collaborating school districts are small districts with only one fifth grade math or one science teacher in the building. Some collaborating districts have multiple elementary buildings but only one fifth grade math or one science teacher per building. Without this collaboration and the opportunity for specialized training described in the BLIS proposal, these teachers have no avenues to grow and become effective STEM teachers. University science courses are not designed to better prepare elementary science teachers and elementary teachers are unlikely to pursue this type of coursework. Current math and science workshops and professional development programs provided regionally are designed to affect a wide range of teachers and use general descriptions and examples. These programs are rarely more than an introduction to a subject or topic. By sharing services, a comprehensive, long term customized professional development can be delivered for a cohort of teachers from multiple districts. As a group, these teachers develop a deep understanding of the need for change, how to change, how to use curriculum resources and how to create units that reflect the required change. The inclusion of Teacher Teams consisting of one 5th grade math, science and gifted teacher from one building per district creates a core group with common understanding and strategies. The Teacher Team members within a district will be able to quickly respond to day-to-day issues that may arise as they implement the curriculum. As the district teams use common strategies and expectations in their classrooms, students' mindsets will shift more quickly and their science and math understanding will improve. The district Teacher Teams will also be models for other grade levels as they begin to fully implement the New Learning Standards and prepare students for the Next Generation Assessments. In addition, participants will be involved in on-line professional learning communities with teachers of like subjects. Now the singleton math, science or gifted teacher has 17 other colleagues they are able to contact when they are in need of subject specific support. The trust and common expectations that evolves among participants over the year's professional development creates the safe environment that fosters support systems for long-term sustainability. Sometimes the entire Teacher Team in a district may face an issue that the three cannot solve. Mentors can now refer these groups to other Teacher Teams who have successfully addressed these same issues. By sharing services and engaging in professional development together, a network will now exist that could not be created if teachers sought professional development

individually. BLIS is replicating a promising STEM program therefore already demonstrating scalability. At the completion of the professional development there will be 18 Teacher Teams with the ability to teach other teachers.

10. Which of the following best describes the proposed project? - (Select one)

- New - never before implemented
- Existing: Never implemented in your community school or school district but proven successful in other educational environments
- Mixed Concept: Incorporates new and existing elements
- Established: Elevating or expanding an effective program that is already implemented in your district, school or consortia partnership

C) SUSTAINABILITY - Planning for ongoing funding of the project, cost breakdown

11. Financial Documentation: - All applicants must enter or upload the following supporting information. The information in these documents must correspond to your responses in questions 11-14.

* Enter a project budget in CCIP (by clicking the link below)

[Enter Budget](#)

* If applicable, upload the Consortium Budget Worksheet (by clicking the link below)

* Upload the Financial Impact Table (by clicking the link below)

* Upload the Supplemental Financial Reporting Metrics (by clicking the link below)

[Upload Documents](#)

For applicants without an ODE Report Card for 2012-2013, provide a brief narrative explanation of the impact of your grant project on per pupil expenditures or why this metric does not apply to your grant project instead of uploading the Supplemental Financial Reporting Metric.

The project budget is entered directly in CCIP. For consortia, this project budget must reflect the information provided by the applicant in the Consortium Budget Worksheet. Directions for the Financial Impact Table are located on the first tab. Applicants must submit one Financial Impact Table with each application. For consortium applications, each consortium member must add an additional tab on the Financial Impact Tables. Partners are not required to submit a Financial Impact Table.

Applicants with an "Ohio School Report Card" for the 2012-2013 school year must upload the Supplemental Financial Reporting Metrics to provide additional information about cost savings and sustainability. Directions for the Supplemental Financial Reporting Metrics are located on the first tab of the document. If your organization does not have an "Ohio School Report Card" for the 2012-2013 school year, please provide an explanation in the text box about how your grant project will impact expenditures per pupil or why expenditure per pupil data does not apply to your grant project.

Educational service center, county boards of developmental disabilities, and institutions of higher education seeking to achieve positive performance on other approved fiscal measures should submit the budget information approved by an executive board or its equivalent on the appropriate tabs of the Financial Impact Table. Educational service centers should use the "ESC" tab and county boards of developmental disabilities and institutions of higher education should use the "non-traditional" tab.

12. What is the total cost for implementing the innovative project?

Responses should provide rationale and evidence for each of the budget items and associated costs outlined in the project budget. In no case should the total projected expenses in the budget narrative exceed the total project costs in the budget grid.

3,028,910.00 State the total project cost.

* Provide a brief narrative explanation of the overall budget.

Eighteen districts will receive equipment and technology to establish a STEM Center. This equipment includes: \$4000 for Furniture: 6 tables, 20 chairs, storage units for student work and science materials, \$30000 for 30 laptop computers and a charging cart, \$1000 for a printer and computer accessories, \$1000 for initial computer configuration (to be done by the vendor), \$7500 for a smart touch TV, \$27000 for 30 Surface Pro tablets, \$12000 for tablet accessories (pen, screen protector, Microsoft Office, and two years of insurance), \$1500 for an overhead microscope, flip cameras, and document camera. Total Equipment (per school): \$84,000 Grant Total = \$1,512,000. - Supplies: Ten kits of materials that correspond to the four shared gifted units, four shared science units, and two units developed by the Teacher Teams. \$500 x 10 units= \$5000/district. Schools receive \$6000 for materials and software licenses to establish the STEM Center. Total Supplies (per district) = \$11,000. Grant Total = \$198,000. - Purchased Services from Curriculum Engineers: Unit Development: Coordinate teams to produce 8 STEM units with teacher guides (4 for math/science and 4 for gifted) and 8 corresponding courses on-line courses, and coordinate review with content experts. (\$59,600) Professional Development for Teachers and Mentors: August (4 days), September - May (12 Days) and coordination of on-line Professional Learning Communities. (\$93,150). Purchased Services Total = \$152,750 - Technology: Training for district technology support personnel (for new equipment and hardware specifications, configuration processes): \$47500, Compensation for technology support to set up and configure new equipment: 20 days @ \$400 x 18 districts = \$144,000. Technology Coordinator = 20 days @ \$400 = \$8000 to order and coordinate equipment, follow up on installation. Technology Total = \$199,500. - Teacher Allocations: (54 teachers) STEMstitute and NSTA/NCTM (registration, travel, lodging) = \$2400/teacher, University Registration Fees = \$850/teacher for 5 credits (\$700 Ashland, \$150 Miami), Stipends/fringe benefits for August and June trainings 10 days @ \$250/day = \$2500/teacher, On-Line professional

learning communities @ 2 hrs / 18 weeks @ \$30 = \$1080/teacher, STEM unit development time @12 hours x \$30 = \$360/teacher, Lodging, mileage, and food allowance for trainings = \$1050 - \$1625 (depending on school location= \$75,450 for 54 teachers) Total Teacher Allocations: \$462,210. - Sub fees 9 days @ \$100 = \$900. Grant Total = \$48,600. - Mentor Allocations (9 mentors): 37 days @ \$375 = \$13,875/mentor (Workshops with Teacher Teams = 17 days, Site Visits 10 days, Monthly Mentor Checkpoints, 10 days.) . On-Line professional learning communities 2 hrs / week x 18 weeks @ \$50 = \$1800/mentor , Tablet \$900 /mentor, Travel for north site mentors, \$875 x 3 = \$2625 , mileage \$300/mentor . Conference Fees (with Teacher Teams) = \$2400/mentor. Total Mentor Allocations: \$176,100. - STEM Camp (5 days): Camp scholarships for 20 students @ \$250 = \$5000, STEM Camp Coordinator, 15 Days @ 400 = \$6000. STEM Camp Total = \$11,000. - Program Administration: Project Director (salary/benefits) - 90 days @ \$450/day = 40,500, Conference Fees (NSTA, NCTM) \$5000, Mileage to districts = \$2000, Tablet \$900, Lodging \$350; Site Directors - 2 @ \$4000 = \$8000 (to monitor the acquisition and delivery and equipment and unit supplies, meet with local mentors to assess implementation of professional development strategies, oversee communication between schools, superintendents, treasurers, mentors, and Teacher Teams), Registration Fee for NSTA/NCTM for Professional Development Coordinator (\$2000), Program Evaluator - \$90,000; Grant Writer - 1% of Grant, \$30,000; Fiscal Agent - 3% of Grant, \$90,000. Total Administration Fees: \$268,750.

13. Will there be any costs incurred as a result of maintaining and sustaining the project after June 30th of your grant year?

Sustainability costs include any ongoing spending related to the grant project after June 30th of your grant year. Examples of sustainability costs include annual professional development, equipment maintenance, and software license agreements. To every extent possible, rationale for the specific amounts given should be outlined. The costs outlined in the narrative section should be consistent and verified by the financial documentation submitted and explained in the Financial Impact Table. If the project does not have sustainability costs, applicants should explain why.

Yes - If yes, provide a narrative explanation of your sustainability costs as detailed in the Financial Impact Table in the box below.

To replicate the STEM program, schools need an equipped classroom and staff trained in technology and science equipment. Funding for the BLIS project provides districts the resources necessary to obtain science equipment, unit materials, and technology to be sustainable and more importantly, comprehensive teacher training with the equipment and STEM processes and practices. Any repairs or replacement costs, estimated as \$1000 for years 3, 4, & 5, are associated with the project equipment maintenance. (Insurance will cover maintenance during years one and two.) On-line units and computer activities will decrease costs associated with printable consumables and materials, along with savings from unexpended professional development funds, and realized efficiencies through shared services, especially the continued use of on-line courses, would offset this possible expense. The majority of this grant's focus is comprehensive professional development which has no cost to maintain. Trained teachers will be able to create their own on-line courses, make updates or revisions to courses, and create additional units, providing sustainability. The development of Teacher Teams and PLCs create a support network among teachers and districts that enable continued teacher learning without additional funds. Many mentors for the project are district or ESC staff that can provide follow-up consultations with trained teachers. With the adoption of the Ohio New Learning Standards, content will not change in the next five years, so that the content and strategies learned by participants will not become outdated and can be implemented indefinitely.

No - If no, please explain why (i.e. maintenance plan included in purchase price of equipment) in the box below.

14. Will there be any expected savings as a result of implementing the project?

Yes

No

Applicants with sustainability costs in question 13 or seeking to achieve significant advancement in spending reductions in the five-year forecast must address this response. Expected savings should match the information provided by the applicant in the Financial Impact Table. All spending reductions must be verifiable, permanent, and credible. Applicants may only respond "No" if the project will not incur any increased costs as a result of maintaining and sustaining the project after June 30th of your grant year. The Governing Board will use the cost savings as a tiebreaker between applications with similar scores during its final selection process. Cost savings will be calculated as the amount of expected cost savings less sustainability costs relative to the project budget.

18,000.00 If yes, specify the amount of annual expected savings. If no, enter 0.

If yes, provide details on the expected savings (i.e. staff counts and salary/benefits, equipment to be purchased and cost, etc.). If no, please explain

Annual savings = \$1000 / year x 18 districts = \$18,000 Amount of initial year expected savings: \$95,000 x 18 districts + \$589,100 = \$3,960,000 Value of on-line courses and student instruction: \$272,000 x 18 districts = \$4,896,000 This grant provides the resources and teacher training necessary to replicate the STEM program into 18 participating districts. The district will receive these resources and professional development during the year of implementation (Year One) which will save each district \$125,000 in initial savings. These savings include \$84,000 in equipment and \$11,000 in science materials to establish the STEM Center and to use with the STEM curriculum. Also, districts save \$31,770 - \$33,495 depending on location (totaling \$589,100) in professional development/travel/ teacher stipends as Teacher Teams are trained in the STEM program and technology. Teacher Teams can provide professional development in upcoming years for other elementary math and science teachers in their districts with the STEM classroom lessons being modeled. The STEM strategies can be used for other grade levels, too. As a consortia, money will be saved as technology and equipment is purchased in larger quantities. Computers, purchased in the year of the grant implementation can also be used for state testing, saving the districts the need to purchase additional computers for testing. This grant was written to address three of the Straight A Fund Goals: To increase student achievement (Goal 1), To utilize a great share of resources in the classroom (Goal 3) and To develop a shared services model (Goal 4). These goals can be met through this project with savings during the implementation year, but does not anticipate significant spending reductions in the five-year fiscal forecast. The project provides sustainability and the continuance of the program with no additional costs for years 1-2, and minimal costs that will be offset by savings for years 3-5. Districts save money during the 2014 -2015 as the project is implemented. Each district receives curriculum that introduces blended learning and on-line courses that will be perpetual with no licensing fees. Based on the estimated cost of \$10,000 per on-line course (times 10 courses) a district saves \$100,000 for the blended STEM courses. Districts will not incur licensing fees

since these courses are created in-house and participants will be trained on how to update and revise these courses for future years. With a blended learning curriculum, students continue to learn without direct instruction of a teacher. If every instructional hour that occurs without a teacher is estimated at \$40/hour, students participating 2 hours per week on-line for 36 weeks would receive services valued at \$2880 per student. For small districts with five gifted students, this amounts to \$14,400 for gifted instruction alone. Larger districts would have services valued at even higher amounts. Math and science students participating in 30 minutes on-line per week receives \$720 worth of additional instruction per student. For an estimate of 100 fifth grade students, this amounts to \$72,000 of on-line instruction that each district receives each year. The project would allow for additional instruction without additional costs, again supporting Goals 1, 3, & 4 of the Straight A Fund - Increased student achievement, a greater share of resources in the classroom, and benefiting from shared services. Finally, with the implementation of on-line courses and the acquisition of math and science equipment and kit materials, districts will save \$1000 per year in printing costs and materials. For 18 districts, this equates to \$18,000. Since this is the only savings that would be annual, it is the number provided in the space above. The additional savings discussed would be reflected in year one only.

15. Provide a brief explanation of how the project is self-sustaining.

All Straight A Fund grant projects must be expenditure neutral. For applications with increased ongoing spending as documented in question 11-14, this spending must be offset by expected savings or reallocation of existing resources. These spending reductions must be verifiable, permanent, and credible. This information must match the information provided in your Financial Impact Table. Projected additional income may not be used to offset increased ongoing spending because additional income is not allowed by statute. Please consider inflationary costs like salaries and maintenance fees when considering whether increased ongoing spending has been offset for at least five years after June 30th of your grant year. For applications without increased ongoing spending as documented in questions 11-14, please demonstrate how you can sustain the project without incurring any increased ongoing costs.

For educational service centers and county boards of developmental disabilities that are members of a consortium, any increased ongoing spending at the educational service center or county board of developmental disabilities may also be offset with the verifiable, permanent, and credible spending reductions of other members of the consortium. This increased ongoing spending must be less than or equal to the sum of the spending reductions for the entire consortium.

Explain in detail how this project will sustain itself for at least five years after June 30th of your grant year.

In order to improve math and science achievement with fifth grade students, it is imperative that elementary teachers have the background knowledge and confidence in STEM areas to challenge the students effectively. During the 2014-2015 school year, teams of teachers will delve into professional development on critical thinking, STEM strategies, science and engineering practices, and science and math content. On-line discussions throughout the year provide an avenue for teachers to discuss challenges, successes, and best practices with colleagues, mentors, and curriculum specialists as the teachers practice their newly learned skills. In many of the small schools, these teachers are the only teacher with the position of gifted teacher, fifth grade math teacher, or fifth grade science teacher and the opportunity to share with like professionals is powerful. This new network of teachers will continue discussions in Fall 2015 as they engage in iDiscovery together and continue to share through the established PLC Moodle site. Mentors will continue to join these conversations as several are district employees who are continuing their role as mentor on a district level. In addition to networks for content teachers, the creation of Teacher Teams at each school builds a structure within fifth grade as these teams implement and create STEM units together. These units, both the face-to face lessons and on-line lessons, will continue for at least five years and will be aligned to the new standards. These Teacher Teams and the Professional Learning Communities continue to be a resource for teacher collaboration and support beyond the end of the grant. The development of curriculum for math, science, and gifted teachers can be very extensive as teachers look for real-world problem-solving lessons. The generation of high quality, rigorous curriculum units to implement in these classes will continue to be a resource for many years. The shared on-line courses are downloaded to the schools with no subscription fees or yearly costs. Highly trained Teacher Teams can become teacher leaders within their schools as a model for other grade levels. The curriculum will be aligned to the Ohio New Learning Standards and will not need to be revisited or edited for content, and the on-line format makes it very easy for teachers to add websites and upload resources as new resources are shared. The acquisition of science materials and technology for the STEM Center and curriculum units integrates 21st century skills and STEM content and non-consumable for future use. With technology in place, materials purchased and Teacher Teams trained in STEM strategies, this program be sustainable for many years. As these STEM concepts and instructional strategies for math, science, and critical thinking are shared with other elementary classroom teachers, the benefits will not only be sustainable, but also incorporated into other classrooms as well.

D) IMPLEMENTATION - Timeline, scope of work and contingency planning

16. Please provide a brief description of the team or individuals responsible for the implementation of this project, including other consortium members and/or partners.

This response should include a list of qualifications for the applicant and others associated with the grant. If the application is for a consortium or a partnership, the lead should provide information on its ability to manage the grant in an effective and efficient manner. Include the partner/consortium members' qualifications, skills and experience with innovative project implementation and projects of similar scope.

Enter Implementation Team information by clicking the link below:

[Add Implementation Team](#)

For Questions 17-19 please describe each phase of your project, including its timeline, scope of work, and anticipated barriers to success.

A complete response to these questions will demonstrate specific awareness of the context in which the project will be implemented, the major barriers that need to be overcome and the time it will take to implement the project with fidelity. A strong plan for implementing, communicating and coordinating the project should be outlined, including coordination and communication in and amongst members of the consortium or partnership (if applicable). It is recognized that specific action steps may not be included, but the outline of the major implementation steps should demonstrate a thoughtful plan for achieving the goals of the project. The time line should reflect significant and important milestones in an appropriate and reasonable time frame.

17. Planning - Activities prior to the grant implementation

* Date Range 10/05/2013 - 07/31/2014

* List of scope of work (activities and/or events including project evaluation discussions, communication and coordination among entities).

Planning for this project began on October 5, 2013, when the seven members of the Planning Team met to discuss the BLIS grant and how it would impact student achievement in different districts around Ohio. Many of the participating teachers and coordinators had visited the STEM Center and returned to their districts to discuss with administration the possibilities for a similar program at their schools. However, the prospects of each individual district's chance for success without teacher training, challenging curriculum, and equipment was doubtful. Gifted coordinators from several schools began discussions on action steps that would be needed to make this happen as a consortium with the hopes that grant funding could make this a reality. The Planning Team met with curriculum specialists to discuss necessary strategies to transform math and science education, and they met with technology vendors to evaluate different models of devices to determine which best met the needs of the students. Discussion on how the program would be evaluated led the Team to the University of Cincinnati, where professional evaluators advised the team on avenues for evaluation. Participating districts will be matched with a mentor who oversees the implementation of the program in their district(s) and supports the Teacher Teams throughout the professional development. The mentors are primarily the gifted coordinators who are already familiar with the operations of the districts and the gifted teachers. In preparation for possible grant funding, rooms will be reserved for the professional development and for storage of purchased materials. Services for professional development, program evaluation, unit development will be tentatively reserved. Bids from vendors will be collected in preparation of the equipment acquisitions.

* Anticipated barriers to successful completion of the planning phase

The first barrier will be quick turnaround time between the funding awards in July and the beginning of the BLIS project in August. To overcome this barrier, the project director, mentors and math and science consultants have been planning the professional development, collecting bids for technology, and collecting baseline data now. Mentors communicated with districts to plan the location of a STEM Center and the expectations of the program. Most teachers and mentors have visited the STEM Center and have a shared vision of the project. Trainers for professional development, the program evaluators, and curriculum consultants have been contacted and are on "stand-by". Busy teachers are often reluctant to find time to implement a new innovative practice. Resources are in place to support the teacher, including mentors that meet with teachers monthly and communicate frequently, year-long professional development sessions, Teacher Teams, and a Professional Learning Community that builds a network of fellow teachers. The project begins with an intensive three day workshop which serves to build relationships and common goals. The inclusion of teacher stipends for hours beyond the scheduled work day and during the summer honors this additional time commitment and effort. Schools lack the materials or technology necessary to implement the blended STEM units. In addition to new technology, schools receive materials to establish a STEM Center and materials for the shared STEM units and units the Teacher Teams create. Communication is key through each step so that all schools are progressing toward the same goal. At the beginning of the year, parents, students and building staff will be informed of the program. Teacher Teams allow for building communication, PLCs allow for content discussions, and mentors will be on hand to address questions and issues. The Project Director, Site Coordinators, and Mentors meet monthly to discuss the project issues.

18. Implementation - Process to achieve project goals

* Date Range 08/01/2014 - 06/26/2015

* List of scope of work (activities and/or events, including deliverables, project milestones, interim measurements, communication, and coordination).

In August, Teacher Teams from 18 school districts meet to develop Professional Learning Communities (PLCs) based on the disciplines (math, science, gifted). A self-evaluation on teaching practices and math/science content will be administered. Teachers learn how to use Moodle, which serves as an on-line avenue for continuing professional development. Experience with Moodle as a user prepares teachers for instructing their students. Mentors meet in August 2014 to learn protocols, rubrics, and tools for observing teachers, specifically in the use of critical thinking, STEM strategies, and math/science content. From September to May, participants and mentors attend six training sessions and participate in on-line discussions to build relationships as strategies are implemented. Each session addresses a STEM strategy and includes breakout sessions for the different disciplines and sessions for Teacher Teams to plan how to implement these strategies in their districts. Mentors communicate monthly with the Teacher Teams and again with the Project Director to evaluate progress of the project and discuss any barriers. The mentors and project director will coordinate action steps to address the issues and can modify upcoming professional development if indicated. Development of a broader understanding of a STEM program will occur through the attendance of either the NSTA or NCTM conferences. During the conference, teachers research resources and attend sessions that build capacity for teaching the unit(s). Teams of mentors will coordinate discussions with the teachers throughout the conference. In June 2015, Teacher Teams meet to finalize two STEM units. Later in June, Teacher Teams pilot their lessons at a STEM Camp for fifth grade students. Mentors and colleagues provide feedback to the Teacher Teams. In the last week of June, Teacher Teams present their units at STEMstitute, sharing their work with teachers in Southwest Ohio schools.

* Anticipated barriers to successful completion of the implementation phase.

One anticipated barrier is to keep the project moving along and stay on schedule. To maximize the effectiveness of professional development, it is important that the learning be on-going throughout the school year and that strategies are implemented in classroom settings. PD continues from August to May, giving teachers time to incorporate STEM strategies into their lessons. A calendar of touch points will be disseminated to show the pacing of the project. Teachers will have support from the mentors, Teacher Teams, and PLCs to assist participants with questions and challenges that arise and to assure that teachers stay on course. Not all teachers will be at the same level regarding the math and science content and the different needs associated with gifted and typical students. The mentors will be an important support for those teachers who need support in these areas. A science consultant, a math consultant, and a team of gifted coordinators are included as mentors and can address this barrier. Mentors meet monthly to discuss the progress of the project and can adjust professional development and PLC discussions as indicated as well as address material needs, technology glitches, and program issues.

19. Summative Evaluation - Plans to analyze the results of the project

* Date Range 01/01/2015 - 06/30/2015

* List of scope of work (activities and/or events, including quantitative and qualitative benchmarks and other project milestones).

The BLIS summative evaluation will focus on the student achievement in mathematics and science. Baseline data will be gathered based on the 2014-2015 academic year. The analysis of these scores will compare the science scores for students in each quintile for the students who attend classes at the STEM Centers versus students who do not. Data from each school year will compare the observed mathematics and science scores to the predicted science scores for individual students in the each quintile, especially the fifth quintile which represents the highest achieving students. These differences will be analyzed by the following grouping variables: whether or not the students received STEM Center instruction, grade level, Teacher Team and regular classroom instructor. All student-level data will be provided by the school districts for analysis purposes without any individual students being identified by name and all results will be reported in aggregate. Data will be analyzed again at the end of the each subsequent school year. For the teachers, the evaluation will focus on documenting the teachers' promising practices that enhance STEM instruction. These will include data collected from all constituents: teachers, mentors, administrators and these teachers' students. Since Teacher Teams will be working with other teachers in their buildings to support student learning at all ability levels, we will also interview or survey these teachers to see what practices and behaviors best support these curricular materials so that they benefit all students. The summative evaluation will document the program's impact on their participating teachers' knowledge and skills after completing the professional development provided by the grant and after these materials are implemented in the STEM Centers or classrooms. Interview and survey data will be collected from the participating teachers, their mentors, and administrators.

* Anticipated barriers to successful completion of the summative evaluation phase.

One anticipated challenge for comparing the data will be in the changes in state testing for 2015. The Ohio Achievement Tests are being eliminated as the Next Generation Assessments are administered in 2015. These new assessments have been developed with the charge to be more rigorous. Therefore, using results from a newly implemented test may be problematic due to administration or interpretation issues. The data analyzing the different grouping variables will be more indicative of the projects success. When analyzing data for gifted students, it will also be important to look at student growth as opposed to mastery of concepts. This data will become part of the districts report card as part of the gifted indicator. Data collected from focus groups and surveys will be analyzed by the UC Evaluation Services Center staff. Mentors and Teacher Teams will continue to analyze yearly data for indications of improved math and science achievement.

20. Describe the expected changes to the instructional and/or organizational practices in your institution.

The response should illustrate the critical instructional and/or organizational changes that will result from implementation of the grant and the impact of these changes. These changes can include permanent changes to current district processes, new processes that will be incorporated or the removal of redundant or duplicative processes. The response may also outline the expected change in behaviors of individuals (changes to classroom practice, collaboration across district boundaries, changes to a typical work day for specific staff members, etc.). The expected changes should be realistic and significant in moving the institution forward.

Please enter your response below:

Students in Ohio are expected to be college and career ready when they graduate from high school. This requires the mastery of a curriculum that is more rigorous and also incorporates skills in communication, collaboration, critical thinking, and creativity. Many gifted programs have focused on these skills in the past and now these skills are expected in all content areas for all students. However, traditional classrooms lack learning that enhances critical thinking, reasoning, problem solving and STEM skills. When coupled by the changes in technology and the demands of the 21st century workplace, schools are charged to re-evaluate traditional curriculum and how students are educated. The application of knowledge is just as important as the knowledge itself. Through extensive professional development and professional learning communities, the gifted teachers in Teacher Teams with fifth grade math and science teachers will learn and implement instructional strategies that challenge students to reach higher achievement levels and utilize problem-solving skills. Many gifted teachers, through their certification coursework, have been introduced to strategies that promote this type of learning. Classroom teachers, however, traditionally have training that focuses on content rather than critical thinking or problem solving skills. Professional development through the BLIS project hones in higher order thinking skills and problem solving and as Teacher Teams integrate these critical thinking and STEM skills into math and science content. The STEM classroom incorporates best practices in teaching math and science and becomes the model for other math and science classrooms in the district. The development of the online professional learning community in 2014-2015 is sustainable for many years given that mentors and Teacher Teams will exist at each the districts. The on-line PLC, established during the implementation of the grant, provides an avenue for teachers to discuss lessons and instructional practices for many years as the STEM strategies are implemented. This immersion into professional development with both like content teachers and school colleagues prepares participants to make these lasting changes in the classroom and offers a different approach to teaching. Training will include sessions with topics such as student-led investigations, writing claims with evidence, math problem solving skills, the engineering design process, and higher level questioning. These strategies will be taught in combination with the New Ohio Learning Standards at fifth grade and will transform how the Teacher Teams plan and deliver instruction. Systemic changes in instruction will directly impact student learning.

E) SUBSTANTIAL IMPACT AND LASTING VALUE - Impact, evaluation and replication

The responses in this section are focused on the ability to design a method for evaluating the project's capacity for long-term sustainable results. Therefore, the questions focus on the method of defining the problem(s) the project hopes to solve and the measures that will determine if the problem (s) have been solved.

21. Describe the rationale, research or past success that supports the innovative project and its impact on student achievement, spending reduction in the five-year fiscal forecast or utilization of a greater share of resources in the classroom.

The response should provide a concise explanation of items which provide rationale that will support the probability of successfully achieving the goals of the project. Answers may differ based on the various levels of development that are possible. If the proposal is for a new, never before implemented project, the response should provide logical, coherent explanations of the anticipated results based on some past experience or rationale. For projects that have been implemented on a smaller scale or successfully in other organizations, the response should provide the quantifiable results of the other projects. If available, relevant research in support of this particular proposal should also be included.

Please enter your response below.

Ohio has recognized the need for innovation and STEM skills in order to build a workforce for the 21st century. However, current trends in Ohio

show our students are well below the expectations of the marketplace. Research by the Greater Cincinnati STEM Collaborative reports that 80% of jobs created in the next decade will require math and science skills, 52% of high-school seniors taking the ACT exam were ready for college level science, and 84% of U.S. middle-school students say they would rather clean their room, eat their vegetables, or take out the garbage than learn math or science. Areas in Appalachian Ohio are without local museums to visit, companies that involve STEM, and most importantly a school that introduces STEM at an early age. Students in small schools and rural areas lack the opportunity to learn about STEM careers and the skills necessary for building tomorrow's leaders. This project addresses the need for introducing STEM to students at an early age and challenging them to use math and science in a problem-solving format. In September 2010, a program was created for serving gifted students in southern Clermont County. Before developing the program, best practices on gifted programs were analyzed. Research by Dr. Karen Rogers, professor of Gifted Students at the University of St. Thomas, was pivotal when developing the program. Results of her studies showed that (1) Gifted students served in a resource room demonstrated an effect size of .49 years in math and science standards and .44 years when measuring critical thinking. (The "effect size" is the additional growth students made above the expected one year's growth.) (2) If students are provided a daily challenge in their area of talent, the effect is 1/3 to 1/2 year's additional growth. (3) The elimination of excess drill and review showed a greater accuracy in retained information and a greater focus on new learning. (4) Exposure to content beyond grade level showed 1.9 to 5.7 additional grade equivalent months growth. Based on this research, a blended learning program was created that included resource room time, an on-line learning community, and a curriculum that exceeded grade level expectations. The new curriculum resulted in significant increases in student achievement in math and science. When the scores of students at Bethel-Tate were analyzed, students who visited the STEM Center had substantial increases over their peers. For this comparison, the OAA science scores for students in the fifth quintiles were compared. These students represented the highest ability students in the districts and many were identified as gifted in math, reading, or science who do not attend classes at the STEM Center. Data from the 2011-2012 school year compared the observed science score to the predicted science score for students in the fifth quintile and found students served averaged a score 12.04 points above their predicted score as compared to scores averaging -3.61 for students who did not receive STEM instruction. Data from the 2012-2013 school year showed repeated success as students served scored 8.69 points above the predicted scores while students not served had scores that averaged -21.2 points. (These students have the same teachers for science the other four days each week.) Last year, it was decided to increase the time spent on math at the STEM Center and join an on-line math program to complement the face-to-face lessons at the STEM Center and regular classroom instruction. When the NCE data from the fifth quintile was analyzed for math, students in the STEM Center increased 3.55 places and those not served decreased 8.00 places. These exciting results from serving gifted students through STEM served as the inspiration of this project in order to share this program with other districts and to incorporate these strategies into the regular math and science classrooms.

22. Describe the overall plan to evaluate the impact of the concept, strategy or approaches used in the project.

This plan should include the methodology for measuring all of the project outcomes. Applicants should make sure to outline quantitative approaches to assess progress and measure the overall impact of the project proposal. The response should provide a clear outline of the methods, process, timelines and data requirements for the final analysis of the project's progress, success or failure. The applicant should provide information on how the lessons learned from the project can and will be shared with other education providers in Ohio.

* Include the name and contact information of the person who will be responsible for conducting the evaluation and whether this will be an internal or external evaluation.

Using a Rapid Response framework, the evaluation will provide timely feedback to the BLIS project team and participants, promoting continuous improvement for the teachers regarding identified knowledge and skills, and for the project regarding attainment of project goals and impacts discussed earlier in this proposal. Evaluation questions and activities are outlined below: ? Evaluation Question 1: To what extent do the BLIS trained teachers acquire and demonstrate new STEM strategies and technology applications? Activities: 1a) Pre-post Teacher surveys and focus groups related to knowledge and skills (after PD and at the end of academic year); 1b) Review expert assessment of units developed (after PD); 1c) Conduct "How's it going?" brief on-line surveys (end of each semester); 1d) Conduct "How'd the year go?" focus group and survey (late Spring); 1e) Review of feedback given by mentors to teachers; and 1f) Teacher evaluation and reflection surveys (after implementation of materials). ? Evaluation Question 2: How does the BLIS project impact learning in STEM classrooms? Activities: 2a) "How'd the year go?" focus groups and surveys with teachers (late Spring); 2b) Student feedback forms completed after materials used; 2c) "Tell us about the STEM Center" focus groups with students (late Spring with Bethel students and two other student groups selected from other districts); 2d) Analysis of math and science achievement tests as described in section 18; 2e) Track student school retention. ? Evaluation Question 3: To what extent do the teachers share knowledge and skills learned with colleagues? Activities: 3a) "How'd the year go?" focus group and survey (late Spring); 3b) STEMstitute evaluation; 3c) Coordinating classroom teachers survey at end of academic year. External evaluators from the University of Cincinnati Evaluation Services Center will conduct the evaluation under the coordination of Catherine Maltbie, Ed.D. (cathy.maltbie@uc.edu, 513-556-1469).

* Include the method by which progress toward short- and long-term objectives will be measured. (This section should include the types of data to be collected, the formative outputs and outcomes and the systems in place to track the project's progress).

Multiple measures will be used to evaluate project activities' effectiveness, overall success of the professional development and teacher-mentor relationships, PLC activities and ultimately how these changes in teacher practices impact students' STEM achievement as described in section 18. Theory suggests that as teachers see student results they will desire PD that supports these gains. Therefore, the evaluation will provide the project team and participants with data indicating the extent to which project goals are met on a regular basis. This includes pre-surveys prior to any activities, survey and interview data collected after the fall PD leading to adjustments being made in the spring PD activities, late spring data that will help inform STEMstitute activities, and an end of the summer evaluation that will help define the following academic year implementation details. Teachers and students using the Bethel STEM Center will be evaluated using case study methodology to identify promising practices. At the end of the 2014-2015 academic year, Bethel teachers and mentors can present to others participating in the project what worked and how to get the most out of the teacher-mentor relationships. The content from these presentations will be used triangulate other data collected from the teachers and mentors. The students using the Bethel STEM Center will be interviewed, via a discussion group, and their responses will be used to create a survey that can be administered to students as other STEM Centers are implemented. Additionally, the mentors who are providing development and implementation support will supply the evaluation team with written summaries of their assessments of the teachers' curricular materials and their implementation. The following project identified constituencies will be involved in the evaluation: teachers, mentors, project team members, the teachers' students, and STEM classroom teachers who work with the BLIS participating teachers.

* Include the method, process and/or procedure by which the project will modify or change the project plan if measured progress is insufficient to

meet project objectives.

In summary, the BLIS evaluation is two pronged. The Bethel STEM Center will be evaluated as a case study to identify promising practices that can be utilized as the other STEM Centers are planned and implemented. For example, data focused on project implementation will be collected and analyzed in an ongoing effort to look at what is working and what is not working in the project. Parallel evaluation activities will focus on the professional development and mentoring given to the BLIS participating teachers as they create and implement these STEM materials. Modifications in the project plan will result from ongoing assessment of evaluation data. When necessary, the project team will implement changes.

23. Describe the substantial value and lasting impact which the project hopes to achieve.

The response should provide specific quantifiable measures of the grant outcomes and how the project will lead to successful attainment of the project goals. Applicants should describe how the program or project will continue after the grant period has expired.

Please enter your response below.

The impact that the STEM Center has had at Bethel-Tate Schools is substantial. Students are demonstrating higher achievement scores in math and science, they are building thinking skills, and they are setting higher goals for themselves. Students have developed a "growth mindset" that challenges them to tackle problems that they might not be able to solve initially or that have more than one answer. For gifted students, it is crucial that they experience these types of problems at a young age. Gifted students who are first challenged at the college level often become discouraged and change majors or even quit college. One example of this can be seen by the number of students who enter college to study engineering compared to those that complete the engineering program. According to research by Dr. Mitchell J. Chang at UCLA "Studies have found that roughly 40 percent of students planning engineering and science majors end up switching to other subjects or failing to get any degree. That increases to as much as 60 percent when pre-medical students, who typically have the strongest SAT scores and high school science preparation, are included. That is twice the combined attrition rate of all other majors." Students currently served at the STEM Center engage in lessons at the elementary grade level that are challenging and build an intrinsic desire for learning. Students learn how to solve challenging problems at an early age so that future challenges do not overwhelm the students. The exploration of STEM strategies, STEM careers, and lessons that involve higher order thinking skills work best when gifted students can complete them with like-ability peers. Just like athletes who strive to improve by playing others who are higher-ranked, gifted students are motivated when they learn with peers at their intellectual level. This project will replicate this effective and motivating program to other schools in order to develop gifted programs that challenge our talented students. While it is imperative that gifted students be challenged during their gifted classes, it is equally as important that all students be challenged in their math and science classes and be college and career ready with the necessary STEM skills. Many elementary teachers lack the confidence and content knowledge necessary to develop lessons and units that incorporate STEM skills and higher order thinking skills. This project builds teacher capacity through two avenues. As Teacher Teams, participants will develop corresponding units for the gifted and math/science classes that mirror STEM skills at different ability and content levels that can be implemented at their home districts. In addition, the three PLCs (one each for math, science, and gifted) provide support for teachers when implementing STEM strategies and new lessons in their classrooms. Several of the smaller districts participating in this grant only have one fifth grade science teacher or one gifted teacher for the district. The participants in the project will meet as teams throughout the year, participate in on-line discussions bi-weekly, and delve through professional learning together, creating strong relationships between participants that will continue after the grant ends. These networks will be supported by curriculum specialists and mentors and establish as safe environment for teachers to continue to collaborate, communicate, and celebrate. By strengthening the STEM skills of math, science and gifted teachers and replicating the successful program at Bethel-Tate and expanding the strategies to the regular classroom, the project addresses the goal to raise fifth grade student achievement in math and science by developing curriculum that involves critical thinking and problem solving for gifted students and typical students.

24. Describe the specific benchmarks, by goal as answered in question 9, which the project aims to achieve in five years. Include any other anticipated outcomes of the project that you hope to achieve that may not be easily benchmarked.

The applicant should provide details on the quantifiable measures of short- and long- term objectives that will be tracked and the source of benchmark comparative data points. Responses should include specified measurement periods and preliminary success points that will be used to validate successful implementation of the project. If a similar project has been successfully implemented in other districts or schools, identification of these comparable benchmarks should be included.

* Student Achievement

The first goal of this project is to increase student achievement. The BLIS project focuses on the student achievement in math and science for fifth grade students in 18 districts. This will be completed through the establishment of the STEM Center at each school, the professional development of Teacher Teams and the generation of face-to-face and on-line STEM curriculum for students. Students' achievement will be monitored and benchmarked in several different ways. 1. The BLIS project's evaluators' summative evaluation will focus on the student achievement in mathematics and science in the participating districts. Evaluators will create focus groups of teachers and students to assess baseline data and to determine progress. The baseline data will be gathered on the 2014-15 school year. The analysis of these scores will compare the observed science and mathematics scores on the Next Generation Science Assessments of students in each quintile. The differences will be analyzed by the following grouping variables: whether or not the students received STEM Center Instruction, Teacher Team and regular classroom instructor. 2. Students in the BLIS program will be given an interest survey at the beginning & end of each year. These surveys will be compared for any changes in interest of math & science. 3. Students will be given quarterly math and science assessments requiring students to write claims-evidence-reasoning type responses. These assessments will be rubric scored and analyzed for improvement of responses over time. 4. Students' value-added growth in math will be analyzed in both STEM center class and regular class. 5. Quarterly student feedback forms completed after STEM materials are used. 6. Quarterly antidotal classroom and walk-through observations and assignment completion will be used as indicators of student engagement. All benchmark data will be analyzed each subsequent year to study trends of progress as teachers hone their newly learned skills.

* Spending Reduction in the five-year fiscal forecast

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* Utilization of a greater share of resources in the classroom

The second goal of this project is to utilize a greater share of resources in the classroom by enhancing personnel qualifications, adding more rigorous math and science curriculum in a blended learning format, and utilizing technology and science equipment to solve real-world problems. Utilizing a greater share of resources will be benchmarked by: 1. Pre and post teacher surveys and focus groups related to knowledge and skills will be given to each participating member. These surveys will be administered before the professional development and at the end of each subsequent school year and analyzed for changes in teacher knowledge and skills. 2. The curriculum is a blended learning model that incorporates face-to-face lessons with on-line assignments. The curriculum will be reviewed by university content experts prior to the use of them in the 2014-15 school year. 3. Participating teachers will provide quarterly reports with suggested improvements for the modeled units during the 2014-15 school year. These suggestions will be compiled by Curriculum Engineers and necessary changes will be made so the units include updated on-line resources, enhanced activities, and best practices. 4. The 2014-15 teacher developed units will be reviewed by mentors and other participating members before the June STEM camp to provide feedback to the authors. The units will be piloted during the STEM camp with students. Based upon student participation and feedback and teacher's reflection, edits will be made. 5. It is expected that future units will be produced by teachers but will not be easily benchmarked. 6. Site leaders will document the arrival of equipment & materials for each district. Quarterly reports will be used to document the number of times equipment & technology are used by students over the course of several years.

* Implementation of a shared services delivery model

The third goal of BLIS is implementing a shared services delivery model. By participating in intensive professional development during the 2014-15 school year, teachers can implement new strategies, design new lessons, and plan activities that better prepare students for the achievement tests beginning in 2015 and increase student interest in math and science. Several benchmarks have been incorporated into the plan for the implementation year. 1. Monthly mentor meetings will be used to discuss changes in teachers' instruction and to problem-solve areas that need improvement. 2. Math, science and gifted teacher professional learning communities will have regular discussions via the on-line discussion system. 3. Professional development has been purposefully scheduled across the school year in order for teachers to practice portions of newly learned content and skills then being able to discuss their implementation progress with the other cohort members at the next meeting. 4. The teachers will be sharing their units with teachers in Southwest Ohio at the June 2015 STEMstitute. In at least the 2015-16 school year the cohort of teachers will continue regular support discussions through the use of iDiscovery. There is potential iDiscovery could be used in future years if interest continues and iDiscovery is funded (OBR grant funding). 5. Most of the mentors will continue to be involved with the teachers in subsequent years through their current positions. Many are gifted coordinators already employed by the district or the local ESC. These gifted coordinators can continue to facilitate on-line discussions and post new ideas, course enhancements, and prompts to issues that arise involving math, science, and gifted. The newly formed network of teachers can continue to collaborate as lessons are implemented and refined.

* Other Anticipated Outcomes

Another anticipated outcome from the project is the reduction of school "dropouts". In areas where high school students have options for what schools they attend, gifted students often leave their school districts to be challenged through post-secondary education options at universities or transfer to schools that have courses that are more appealing. In many of our elementary schools, gifted students can drop out in favor of being home-schooled. These parents report that their children are bored in the traditional school setting or don't fit it. Even though it's only one day per week, gifted students who attend the STEM Center experience a love of learning with other gifted students and are encouraged to stay in school. The final outcome not easily benchmarked is mastering the social skills that students often lack. As part of the STEM program, students have discussions to talk about issues facing gifted students such as: not showing off, fitting in, procrastination, organizational skills, and other issues students bring to the discussion. One important issue that both the gifted and typical students share is developing the growth mindset and the need to persevere. This requires that instruction be differentiated in order to challenge different ability levels. Gifted students also need lessons that require them to collaborate and to share leadership roles. Mastering these skills can also affect student achievement for all students, especially when students encounter a difficult problem that requires stamina, as well as building skills for the 21st century workplace.

25. Is this project able to be replicated in other districts in Ohio?

Yes

No

If the applicant selects "Yes" to the first part of the question, the response should provide an explanation of the time and effort it would take to implement the project in another district, as well as any plans to share lessons learned with other districts. To every extent possible, applicants should outline how this project can become part of a model so that other districts across the state can take advantage of the learnings from the proposed innovative project. If there is a plan to increase the scale and scope of the project within the district or consortium, it should be included here.

* Explain your response

This project centers around replicating a successful STEM program, developing new blended units for both gifted and typical students in fifth grade, and engaging teachers in high quality professional development on STEM strategies and problem solving. Our model can be fully replicated by additional districts. The practices that have been developed for the participants of the grant can be used to initiate similar programs to schools in rural, city, or suburban locations After this project is implemented and evaluated, revisions can be incorporated to fine tune the implementation process for other districts. Districts interested in replicating this project can have full access to a site visit with our mentors and/or teachers. Curriculum Engineers, a partner in this grant, is prepared to repeat the professional development series at both the teacher and mentor/administrator levels. The project manager will maintain notes of progress monitoring meetings as "lessons learned", identifying all benchmarks achieved, the time taken to complete them, unanticipated issues, challenges, and delays, and action steps deployed to overcome them. In order to replicate this project, districts would need to research our proposal, stakeholder interest, financial allocations for professional development, district level commitment to the initiative and identify their own technology and teacher capabilities. Our project implementation timeline along with the project manager's notes would provide districts with the necessary framework to replicate this project.

By virtue of applying for the Straight A Fund, all applicants agree to participate in the overall evaluation of the Straight A Fund for the duration of the evaluation time frame. The Governing Board of the Straight A Fund reserves the right to conduct an evaluation of the project and request additional

information in the form of data, surveys, interviews, focus groups and other related data on behalf of the General Assembly, Governor and other interested parties for an overall evaluation of the Straight A Fund.

PROGRAM ASSURANCES: I agree, on behalf of this applicant, and any or all identified consortium members or partners, that all supporting documents contain information approved by a relevant executive board or its equivalent and to abide by all assurances outlined in the Straight A Assurances (available in the document library section of the CCIP).

We have read the Straight A Grade Assurances and agree to abide by them.

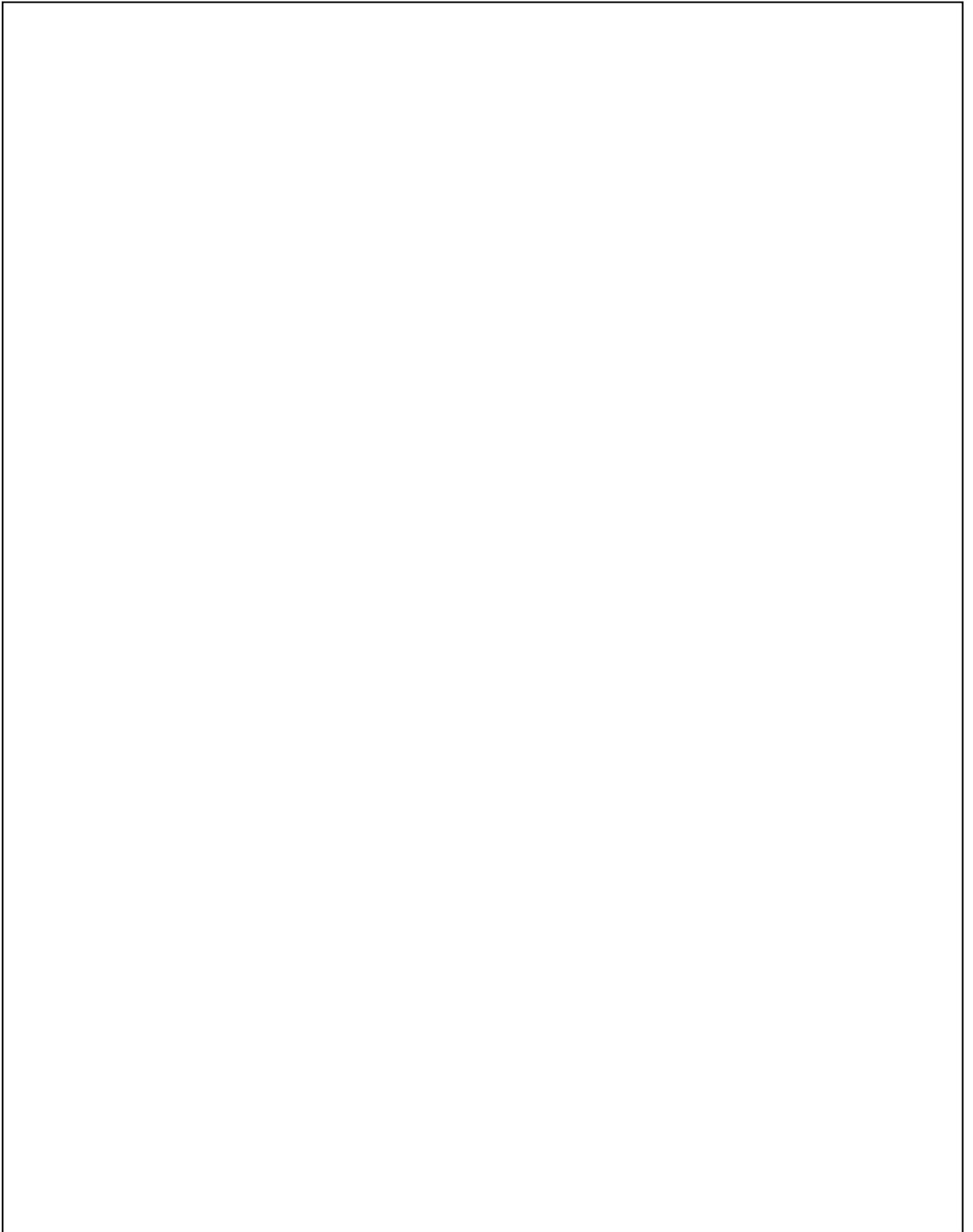
Consortium

Bethel-Tate Local (046318) - Clermont County - 2015 - Straight A Fund - Rev 0 - Straight A Fund

Sections 

Consortium Contacts

| First Name | Last Name | Telephone Number | Email Address | Organization Name | IRN | Address | Delete Contact |
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| Glenn | Moore | 513-876-2113 | mooreg@felicityschoools.org | Felicity-Franklin Local | 046334 | PO Box 619, Felicity, OH, 45120-0619 | |
| Jeff | Langdon | 513-891-0222 | langdon.j@dpccsd.org | Deer Park Community City | 043851 | 4131 Matson Ave, Cincinnati, OH, 45236-2509 | |
| Larry | Claypool | 937-295-3010 | lclaypool@hardinhouston.org | Hardin-Houston Local | 049791 | 5300 Houston Rd, Houston, OH, 45333-8630 | |
| Doug | Lance | 513-863-4692 | doug.lantz@edgewoodschools.net | Edgewood City | 046094 | 3440 Busenbark Rd, Trenton, OH, 45067-7612 | |
| Steve | Mascho | 937-492-1974 | mascho@fairlawn.k12.oh.us | Fairlawn Local | 049775 | 18800 Johnston Rd, Sidney, OH, 45365-9755 | |
| Bill | Reichert | 937-596-6053 | b_reichert@jackson-center.k12.oh.us | Jackson Center Local | 049809 | PO Box 849, Jackson Center, OH, 45334-0849 | |
| Todd | Petrey | 937-748-3960 | tpetrey@springboro.org | Springboro Community City | 050427 | 1685 S Main St, Springboro, OH, 45066-1524 | |
| James | Kalis | 440-358-8202 | james.kalis@riversideschools.net | Riverside Local | 047894 | 585 Riverside Dr, Painesville, OH, 44077-5323 | |
| Patrick | O'Donnell | 937-686-8601 | odonnellp@ils-k12.org | Indian Lake Local | 048082 | 6210 State Route 235 N, Lewistown, OH, 43333-9704 | |
| Lori | Lytle | 937-593-9211 | lytlel@benjaminlogan.org | Benjamin Logan Local | 048074 | 4740 County Road 26, Bellefontaine, OH, 43311-9532 | |
| Dennis | Recker | 419-757-3231 | drecker@usv.k12..oh.us | Upper Scioto Valley Local | 047522 | PO Box 305, Mc Guffey, OH, 45859-0305 | |
| Steve | Rose | 937-526-3156 | srose@russia.k12.oh.us | Russia Local | 049817 | 100 School St, Russia, OH, 45363-9811 | |
| Daniel | Holland | 937-295-3931 | holland_d@loramie.k12.oh.us | Fort Loramie Local | 049783 | PO Box 26, Fort Loramie, OH, 45845-0026 | |
| Connie | Schneider | 937-693-4241 | schneiderc@botkins.k12.oh.us | Botkins Local | 049767 | PO Box 550, Botkins, OH, 45306-0550 | |
| Matthew | Earley | 513-724-3077 | earley_m@burgschools.org | Williamsburg Local | 046367 | 549A W Main St, Williamsburg, OH, 45176-1110 | |
| keith | Kline | 513-943-5000 | kline_k@westcler.org | West Clermont Local | 046359 | 4350 Aicholtz Rd, Cincinnati, OH, 45245-1505 | |
| Ralph | Shell | 513-625-1211 | shell_r@cneschools.org | Clermont Northeastern Local | 046326 | 2792 Us Highway 50, Batavia, OH, 45103-8532 | |



Partnerships

Bethel-Tate Local (046318) - Clermont County - 2015 - Straight A Fund - Rev 0 - Straight A Fund

Sections 

Partnerships

| First Name | Last Name | Telephone Number | Email Address | Organization Name | IRN | Address | Delete Contact |
|-------------------|------------------|-------------------------|------------------------------|----------------------------|------------|---|-----------------------|
| Catherine | Mathbie | 513-556-1469 | cathy.maltbie@uc.edu | University Of Cincinnati | 062927 | PO Box 210002, Cincinnati, OH, 45221-0002 | |
| Meri | Johnson | 513-505-1574 | meri@curriculumengineers.com | Curriculum Engineers, Inc. | | 4688 State Route 132 , , Batavia, Ohio , 45103 | |

Implementation Team

Bethel-Tate Local (046318) - Clermont County - 2015 - Straight A Fund - Rev 0 - Straight A Fund

Sections 

Implementation Team

| First Name | Last Name | Title | Responsibilities | Qualifications | Prior Relevant Experience | Delete Contact |
|------------|-----------|-------------------------------|---|---|--|----------------|
| Meri | Johnson | Science Curriculum Consultant | <p>The project professional development will be conducted by Curriculum Engineers, Inc. under the direction of Meri Johnson. Specifically for this project, Curriculum Engineer's will develop and coordinate the implementation of the ten face to face professional development days and the year-long professional learning community on-line discussions for mentors and teacher teams. The face to face professional development programs will be packaged in a manner for teacher teams to refer to throughout the implementation of the program. Rubrics and observation tools will be developed for mentors to use when supporting the teacher teams during the 2014-15 school year. Curriculum Engineers, Inc. will use the Bethel-Tate STEM Gifted curriculum as a model to develop four a corresponding units for the math and science teachers. The gifted curriculum will be enhanced to incorporate four more blended learning programs. Curriculum Engineers will coordinate with Miami University and University of Cincinnati for reviewing the curriculum for content accuracy. The units will be produced in hard copy and electronic versions for teacher use. Equipment and materials lists will be provided for the units in order for ordering purposes.</p> | <p>Meri Johnson is a Science Curriculum Specialist for Curriculum Engineers, Inc. She has a BS in Biology from Miami University and a MA in Science Education from Northern Kentucky University. Meri is a National Board Certified Science Teacher, and holds a permanent certification in 7-12 science and a supervisor's license. She is also a certified trainer for Brain-based Learning. Meri taught science for 21 years in southwest Ohio and was a science curriculum specialist with Clermont County Educational Service Center for ten years. Meri is a coach and trainer for ODE's Ohio Performance Assessment Pilot (OPAPP) Program & University of Cincinnati's National Science Foundation Grant funded program, Engineering to Enhance Math & Science (CEEMS). She is a member of the Ohio Science Content Advisory Committee. She was also on the Ohio's Science Standards Advisory Committee for the New Learning Standards and the Science Range Finding Committee for the 2003 standards.</p> | <p>Meri's love of science began with outdoor environmental experiences as a student and led into a successful science education career. Now she uses her passion for science and expertise in inquiry learning to help teachers become comfortable and excited about science. During the last 12 years she has been working with teachers through PD programs including Centering Around the Science Standards, Southwest Ohio Science Institute (SOSI), and Mastering the Demands of the Science Standards. All programs were created to increase teachers' content knowledge and emphasizing inquiry learning and the 5-E's Constructivist model to effectively engage students. During each PD, teachers take the role of the student first to better understand how empowering inquiry is for learning & thinking. At the same time, Meri models the teacher's role. After each inquiry extensive debrief discussions occur requiring teachers to reflect on how they learned, what kinds of questions would extend the students' learning and how to structure class for student's to be more engaged in their own learning. Often PD was designed in a manner to allow teachers to "practice the pedagogy" in small groups or were assigned as homework to practice in their classroom before the next PD day. This allowed for more support to problem solve issues when first implementing the techniques. Along with creating professional development, Meri is known in the state for organizing major science events. She was the chairman of the regional NSTA Conference in 2008 and was the conference coordinator for the Ohio Science Institute sponsored by Science Education of Ohio (SECO) in 2013 & 2014. Meri was a co-primary Director for the MSP grant Southwest Ohio Science Institute which provided extensive</p> | |

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| | | | | | professional development for over 800 elementary science teachers over five years. As part of Curriculum Engineers, she has organized the STEMstitute, a summer program for math & science teachers & PD for school districts. | |
| Karen | Qualls | Gifted Coordinator / Curriculum Consultant | <p>Karen Qualls is the Site Director for the South Sites. The Site Directors serve as Senior Mentors, fulfilling both the duties of mentor and regional coordinator. As a mentor, Ms. Qualls will work with Teacher Teams to support professional development by working with the teachers as they practice new units in the classroom, utilize on-line learning, and implement the new math and science standards. She will monitor the establishment of the STEM Center, making sure that equipment is installed, platforms for Moodle are created, and science equipment is in working order. Mentors participate in professional development alongside of the Teacher Teams, allowing for collaboration and the building of relationships as new strategies and content are presented. Mentors visit the STEM Centers and complete walk-throughs to see the new lessons in action and provide support and feedback. Mentors serve as communicators with district administration and Teacher Teams and are an integral part of the on-line Professional Learning Communities. Obstacles or issues that arise are first addressed by the mentor for that school, and then if needed, communicated to the project director and discussed at the monthly mentor meetings. The additional responsibilities of Site Director, include communicating on regional issues and collaborating with the project director and professional development staff for the training sessions that occur at the South Site.</p> | <p>Karen has been an educator for over 30 years and serves as a curriculum consultant with Butler County, Ohio. Her experience in 25 of her 33 years was spent in gifted education. Karen acquired a BS from in Elementary Education, grades K-8 as well as a Minor in Geology and a dual Masters degree in Curriculum and Instruction and Reading , both from Eastern Michigan University. Ashland University attendance later earned her both Supervision and Gifted Certifications. She has presented on State and National levels on instructional strategies, differentiation, gifted and character education. Karen has worked as an adjunct professor with Miami University, University of Cincinnati and Ashland University in areas of Gifted, Supervision and Character Education. As a director of Camp Invention, a STEM summer program, Karen's belief that learning should be acquired through creative hands on activities was fostered. This innovative program addressed quality STEM standards while combining learning and fun. She directed Camp Invention's summer program for eleven years bringing STEM summer opportunities to thousands of children. As an administrator in a large city school district, Karen, developed an Honors program for math, science and technology with curriculum staff and teachers to better meet the needs for 21st century learners. Consultations with the College of William and Mary professors in material designs helped</p> | <p>For ten years Karen was the director of a summer STEM camp, Camp Invention designed for students 6 - 12 years of age. During her role as Director of Gifted Services, Karen initiated blended learning with Moodle and dual credit enrollment with Miami University for secondary classes, specifically in the disciplines of math and science. This progressive technology input provided both students and teachers' complexity and challenges. In the role of school administrator and director of STEM camps, Karen has acquired and mastered skills that drive initiatives of teacher support, guidance and public relation promotions. Karen has fostered growth to her teachers with attendance at both state and national math and science conferences. Upon returning from these sessions she brought in guest speakers and materials to build upon existing programs. In addition, she worked with Cornell University Professors on cognitive thinking patterns and the connection to patterns of learning for two years following a network session at a national conference. During her 33 years of instruction, Karen Qualls was a teacher of both Science and Math at elementary and middle school classes. She supported the curriculum standards/objectives with investigations and hands on learning labs that required students to be active in thinking and investigation. Karen supported after school programs of technology and lab units for parent involvement and kept the bar of rigor raised high. Additionally, she was engaged in up to date research and reading of journals and papers as on effective strategies that fortified and supported her programs regardless of her role as instructor or administrator. Karen Qualls will bring standards of knowledge in content and positive experiences to her role of mentor in facilitating this</p> | |

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| | | | | <p>develop lateral developmental growth of math skills in middle school students. Parent workshops and teacher training supported this endeavor which promoted a positive yet challenging environment for students. Karen continues to foster her belief in hands on active learning and the joy of investigation in education through her mentoring of 10 classroom teachers, conducting workshops for current educational requirements for teachers and supporting school districts for state compliance of gifted education.</p> | <p>opportunity to impact student achievement and teacher professional development.</p> | |
| Amy | Bain | Gifted Coordinator / Curriculum Consultant | <p>The responsibilities of the Project Director for this grant is to communicate, collaborate, and contemplate. Communication is critical with multiple districts participating. It is imperative that all involved parties ranging from the superintendents to the mentors to the participants understand the expectations and are supportive of project goals. The Project Director will communicate with the technology coordinator to assure that equipment is purchased and support personnel are trained. The Project Director will work closely with Curriculum Engineers to make sure checkpoints are met as professional development is planned and units are developed. An important duty of the Project Director is to communicate with the site directors and mentors to assess the progress of the grant project. Meetings are scheduled throughout the year to contemplate what adjustments need to be made as the grant progresses and to follow-up with participant progress. The Project Director will collaborate with the STEM Camp Director to provide a learning opportunity for the participants as they practice their newly developed lessons. The project director oversees the purchase of</p> | <p>Amy Bain has served as gifted coordinator for the successful Bethel-Tate STEM program for 10 years at the Clermont County Educational Service Center. She has a Bachelor's of Science Degree from Purdue University in Food Science, a Master's of Teaching Degree from University of Dayton, Certification in Curriculum, Instruction, and Professional Development, and Certification in Gifted Education. Mrs. Bain is a Nationally Board Certified Teacher and Ohio's 2002 Finalist for the Presidential Award for Excellence in Math and Science Teaching. She has published four books, include "Earth Sciences: Curriculum Resources and Activities for School Librarians and Teachers " (2001) (Also, Life Sciences and Physical Sciences) and "Developing Units for Virtual Learning Environments". (2010). Mrs. Bain has served as the President of the Southwest Ohio Coordinators of Gifted for the past three years and is the Regional Representative for the Ohio Association of Gifted Students. She has presented workshops at the local, state, and national levels in areas of science education, gifted</p> | <p>Mrs. Bain coordinates the Clermont County High School Gifted Program and developed Academic Adventures, programs involving six districts. Establishing these programs involved the writing of several grants and the coordination of staff and resources from multiple districts, as well as extensive communication between district administrators. Mrs. Bain is heavily involved in the development of STEM curriculum through the creating of units taught at the STEM Center and in schools that she coaches. She served as the Sixth Grade Team Leader for developing curriculum and science lessons for the Southwest Ohio Science Institute, a program created to provide professional development in science when the current science standards were implemented. In 2006, Mrs. Bain mentored a gifted teacher at Felicity Franklin School and together they created a blended learning program that challenged gifted students and utilized technology in an innovative manner. This program was recognized nationally by President Obama and the teacher was declared Ohio's winner for the Presidential Award for Teaching in Math and Science. This program was enhanced and modified when two neighboring districts were interested in replicating the program through shared services, and it is now the Bethel-Tate STEM program that</p> | |

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| | | | <p>materials for the STEM kits and STEM Camp, and organizes the delivery of materials, equipment and resources to the districts. The Project Director communicates with the evaluator as focus groups are held and surveys taken to evaluate the success and challenges of the program in order to make any necessary adjustments. The Project Director collaborates with Curriculum Engineers to provide participants the opportunity to share their units with other teachers at STEMstitute. Throughout the project, the Project Director collaborates with the Fiscal Agent to ascertain that expenditures are aligned to the budget and appropriations are made accordingly.</p> | <p>programs, and blended learning.</p> | <p>is being featured in this grant. Word of the STEM Center spread north to Logan and Shelby counties and last year 20 teachers and administrators took a road trip to Bethel to see the site in action. It was this experience that inspired this grant as a collaborative effort between the "North" and "South" sites and the desire to replicate the STEM Center program in 17 other districts.</p> | |
| Amy | Wells | Treasurer, Bethel-Tate Local Schools | <p>Ms. Amy Wells will serve as the fiscal agent for this grant. She will serve as the central person that submits financial information to the state and discusses financial matters with the other 17 participating districts.</p> | <p>Ms. Wells has a B.B.A. in Accounting and Management from the University of Cincinnati and is a Certified Public Accountant and Certified Business Manager. As Treasurer, she is the chief financial officer of the District, responsible directly to the Board for maintaining all financial records, issuing all payments, maintaining custody of all District funds and assets and investing idle funds as specified by Ohio Law. Ms. Amy M. Wells was appointed Treasurer/CFO of the Bethel-Tate Local School District in January 2004.</p> | <p>Prior to coming to Bethel-Tate, she was an auditor for the Auditor of State of Ohio from 1996-1999 and an Audit Manager for the Auditor of State of Ohio from 1999-2003.</p> | |
| Jennifer | Frederick | Gifted Coordinator / Curriculum Consultant | <p>Jennifer Frederick is the Site Director for the North Sites. The Site Directors serve as Senior Mentors, fulfilling both the duties of mentor and regional coordinator. As a mentor, Ms. Frederick will work with Teacher Teams to support professional development by working with the teachers as they practice new units in the classroom, utilize on-line learning, and implement the new math and science standards. She will monitor the establishment of the STEM Center, making sure that equipment is installed, platforms for</p> | <p>Mrs. Jennifer Frederick is a seventeen year educator whose passion is in Gifted Education. Jennifer received her Undergraduate Degree from Marshall University and her Masters Degree from Bowling Green University. A ten year veteran of the classroom, she has spent the past seven years in administration as a coordinator of gifted services for the Logan County Educational Service Center and most recently the Shelby County</p> | <p>As an ESC Gifted Coordinator, Mrs. Frederick has built relationships with the ten districts in the North Region. She has organized professional development and provided support to gifted teachers, including the coordination of several district educators to be transported to the STEM Center in Bethel, Ohio. By sharing with her administrators, gifted teachers and classroom teachers first hand the successes and opportunities the blended learning program offered, the group was able to engage in meaningful conversation on how this</p> | |

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| | | | <p>Moodle are created, and science equipment is in working order. Mentors participate in professional development alongside of the Teacher Teams, allowing for collaboration and the building of relationships as new strategies and content are presented. Mentors visit the STEM Centers and complete walk-throughs to see the new lessons in action and provide support and feedback. Mentors serve as communicators with district administration and Teacher Teams and are an integral part of the on-line Professional Learning Communities. Obstacles or issues that arise are first addressed by the mentor for that school, and then if needed, communicated to the project director and discussed at the monthly mentor meetings. The additional responsibilities of Site Director, include communicating on regional issues and collaborating with the project director and professional development staff for the training sessions that occur at the North Site.</p> | <p>Educational Service Center. In addition to coordinating gifted services, Jennifer is an adjunct for Ashland University. Throughout her career, she has had the opportunity to teach both students and staff on all building levels. In addition to coordinating gifted services, Jennifer has had the opportunity to speak on local, regional and state-wide levels as well as has in-depth experience working as an Ohio Improvement Process Facilitator, Race to the Top lead, and working with staff members regarding Student Learning Objectives.</p> | <p>program might be replicated in their region and schools. Mrs. Frederick is the center of communication as she works with district superintendents, principals, and teachers.</p> |
| Catherine | Maltbie | <p>Research Associate, University of Cincinnati Evaluation Services Center</p> | <p>Specifically for this project, Dr. Maltbie will prepare the evaluation design, supervise evaluation related data collection and analysis, and provide assistance in completion of the IRB's Human Subjects review. UCESC will present a brief mid-term report and a more extensive end-of-the-year report to the project team on progress towards project's goals, objectives and targets and including an outline of recommendations for continuous improvement.</p> | <p>The Building Leaders in STEM (BLIS) project evaluation will be conducted by the University of Cincinnati Evaluation Services Center (UCESC) under the direction of Dr. Maltbie. UCESC provides evaluation services that facilitate data-based decision making for accountability, meaningful program improvement, and policy development. The Center is in its sixteenth year of providing comprehensive evaluation services for education and human services organizations using a collaborative method to develop outcome measures, assessment and evaluation processes and instruments. Currently, staff at ESC evaluates over 40 projects.</p> | <p>Dr. Maltbie has coordinated 12 NSF evaluations with expertise in mixed-methods research measures and the cognitive impacts of instructional practices.</p> |

