### Budget

#### U.S.A.S. Fund #: 466

Plus/Minus Sheet (opens new window)

- **Centerville City (043737)**
- **Montgomery County**
- **2016**
- **Straight A Fund**
- **Application Number (133)**

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<th>Capital Outlay (600)</th>
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**Adjusted Allocation** 0.00

**Remaining** -737,226.00
Please respond to the prompts or questions in the areas listed below in a narrative form.

A) APPLICANT INFORMATION - General Information

1. Project Title:
Increasing STEM Opportunities and Creating 21st Century Classrooms

2. Project Summary: Please limit your responses to no more than three sentences.
To provide STEM instruction at the elem. level, virtual classrooms to help w/ subject adv. students, and support for 21st century classroom

This is an ultra-concise description of the overall project. It should only include a brief description of the project and the goals it hopes to achieve.

3. Estimate of total students at each grade level to be directly impacted each year.

This is the number of students that will receive services or other benefits as a direct result of implementing this project. This does not include students that may be impacted if the project is replicated or scaled up in the future. It excludes students who have merely a tangential or indirect benefit (such as students having use of improved facilities, equipment etc. for other uses than those intended as a part of the project). The Grant Year is the year in which funds are received from the Ohio Department of Education. Years 1 through 5 are the sustainability years during which the project must be fiscally and programmatically sustained.

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4. Explanation of any additional students to be impacted throughout the life of the project. This includes any students impacted or estimates of students who might be impacted through future scale-ups or replications that go beyond the scope of this project.

With the implementation of this project, all students in grades 4-12 will be impacted moving forward. The implementation of the STEM instruction at grades 4 and 5 will impact those students and their science/technology knowledge and experience as they move forward in school. The devices at the 9th grade level will allow us to begin collecting a portion of school fees towards technology, giving us a sustainability going forward and allowing us to purchased devices for each incoming freshman class. Students will keep those devices for their four years of high school. Following the implementation of the STEM instruction at grades 4 and 5, we will look to expand that into the middle schools in the future.

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

First and last name of contact for lead applicant
Jeremy Miller

Organizational name of lead applicant
Centerville City Schools

Address of lead applicant
111 Virginia Avenue Centerville, OH 45459

Phone Number of lead applicant
(937) 433-8841 ext 2006

Email Address of lead applicant
jeremy.miller@centerville.k12.oh.us

Community School Applicants: After your application has been submitted and is in Authorized Representative Approved status an email will be sent to your sponsoring entity automatically informing the sponsor of your application.

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 (vendors, service providers, sponsors, management companies, schools, districts, ESCs, IHEs) 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. The following questions will address specific outcomes and measures of success.

a. The current state or problem to be solved; and

We currently lack many direct STEM related opportunities in our elementary schools. While we are currently increasing integrated STEM themes into our science classrooms, there is a need to provide more opportunities for this learning for our youngest students in order to prepare them adequately for the career fields they will be entering into. Each school year, we have students across the district that are "subject accelerated" in mathematics. This is a tremendous support for some of our highest Gifted math students. Subject acceleration fills a direct need of these students, however it presents challenges when we hit transition grades across middle and high schools. Fifth grade students at any of our 6 elementary buildings are required to be bussed to one of our middle school locations if they are accelerated to 6th grade mathematics. This presents additional transportation costs to our school district, but more importantly it negatively impacts other parts of the student's school day. The time required for transporting to and from a middle school ends up impacting another 30-45 minutes of time for that student. That is a complete loss of instructional time for some of our brightest math students. The same occurs as we have 8th graders at any of our 3 middle school locations that are advanced into high school levels courses of Algebra II or higher. These are some of our brightest, highest achieving students in the school district and their school day is negatively impacted by scheduling. High schools
classrooms are very traditionally based with paper/pencil resources. Exploration of on-line resources and open-source textbooks has been hampered by our capacity of devices available to students. We have heavily invested in wireless infrastructure and mobile carts of chromebooks. The result has been an even more increased demand for students to access electronic resources, and the chromebooks carts are in constant use without enough to go around.

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

We plan to implement STEM activities into our already established technology classes at 2nd through 5th grade. We will purchase 3-D doodler kits for use with our 2nd and 3rd graders as an introduction into design. We will purchase 3-D printers and software for each of our elementary school buildings. Our technology instructors will teach some basic design principles to our 4th and 5th graders and they will build the capacity to print these basic designs through the 3-D printers. We would also purchase electronics "little bits kits" and "make-bot" kits. These would serve as introductory electronics and robotics instruction within our elementary school buildings. We plan to implement several "virtual classroom" environments into our middle and high schools. These virtual classrooms will provide much needed capacity to instruct students in multiple off-site locations, 5th grade mathematics students that are subject-advanced into middle school courses would then be able to take that course without leaving their elementary school. This provides instructional time back to these students and their teachers. Without the need to transport these students to our middle school buildings, the students will remain with their grade levels peers for all other parts of instruction through the day. In the past model, students would miss between 30-45 minutes of instruction due to transportation back and forth. We believe this will potentially increase the numbers of students subject accelerated in math, because each year some families do not explore this option because of transporting back and forth to middle school. Similarly, the same occurs with 8th grade students in high school courses of Algebra II and higher. We have the capacity to offer Algebra and Geometry at all three middle school locations, but for those students requiring Algebra II or higher they are transported to our high school and back. This moved would also eliminate the impact that transportation has on their school day. This would also eliminate transportation costs at both of these levels for these situations. The elimination of these transportation costs will present an on-going cost savings to the school district. We would purchase an additional 600 chromebooks for Centerville High School. These devices will increase the amount of devices available to CHS students to 1350. We have already prepared to open a secure network for students to access via their own devices, so we believe this will create an environment in which students will have adequate access to electronic resources and content. With the shift to more electronic resources, we plan to shift some of the current school fees collected to a technology fee. This fee replacement will allow us to build greater capacity to replace the devices on the timeframes required. This provides us sustainability to purchase additional devices in the future and manage repair and replacement. With the addition of the virtual classrooms at our middle and high schools and more students being online at our high school we have to prepare for the drain this will put on our existing network. We plan to purchase and install fiber between each of our middle school and high school locations, connected back to our central office location. This will provide us with a stronger network with greater bandwidth to handle the increase in volume. The purchase of the fiber will save the district $30,000 a year every year going forward, as we reduce to amount of our contract with Time Warner for leasing that current cable.

9. Select which (up to four) of the goals your project will address. For each of the selected goals, please provide the requested information to demonstrate your innovative project. - (Check all that apply)

   a. Student achievement

   i. List the desired outcomes.

      Examples: fewer students retained at 3rd grade, increase in graduation rate, increased proficiency rate in a content area, etc.

      We expect increased knowledge of STEM concepts among our elementary students. Because we do not currently have any formalized STEM instruction at this level, introduction to design, electronics and robotics concepts will certainly improve upon the knowledge our students already possess.

   ii. What assumptions must be true for this outcome to be realized?

      Examples: early diagnosis and intervention are needed to support all children learning to read on grade level; project-based learning results in higher levels of student engagement and learning, etc.

      Student must be present for the STEM lessons during the technology lessons. The lessons will impact multiple weeks across a school year, but if students are absent from those lessons the impact will be not be prevalent.

   iii. Describe any early efforts you have made to test these assumptions (pilot implementation, etc), or how these are well-supported by the literature.

      Research on STEM instruction with students is prevalent. The emphasis is on STEM concepts that are relevant to students and likely to be a part of their world as they enter the workforce. Design, robotics and electronics basic concepts certainly open the potential up for more detailed incorporation into curriculum expectations going forward.

   iv. List the specific indicators that you will use to measure progress toward your desired outcome.

      These should be measurable changes, not merely the accomplishment of tasks. Example: Teachers will each implement one new project using new collaborative instructional skills, (indicates a change in the classroom) NOT; teachers will be trained in collaborative instruction (which may or may not result in change).

      A minimum of 4-5 lessons will be presented to students on STEM concepts for all of our elementary students in second through fifth grade. The lessons will be presented on design, electronics and robotics. Lesson plans will be generated collaboratively with the support of the Instructional Technology Coordinator to assure consistency across our elementary schools and also serve as assurance of the concepts being presented to all students.

   v. List and describe pertinent data points that you will use to measure student achievement, providing baseline data to be used for future comparison.

      We will use a pre-post assessment of STEM concepts with our elementary school students each year. We will implement a brief formative, online assessment through our performance plus system to determine student's knowledge and awareness of STEM concepts each year.

   vi. How are you prepared to alter the course of your project if assumptions prove false or outcomes are not realized?

      Our Instructional Technology Coordinator will meet quarterly with our technology instructors. They will discuss the implementation of these
lessons and materials. They will discuss refinements to the lessons and make adjustments as needed. They will review results of the formative assessments and continue to refine the lessons and projects to increase student knowledge of the basic STEM concepts.

b. Spending reductions in the 5 year forecast

i. List the desired outcomes.

Examples: lowered facility cost as a result of transition to more efficient systems of heating and lighting, etc.; or cost savings due to transition from textbook to digital resources for teaching.

The implementation of this project will reduce spending in two areas. Transportation costs will be reduced over the five year period. We are currently bussing students from 5th grade classrooms to our middle schools when we have students that are subjected accelerated in mathematics. We have averaged 3-5 students per year. We are currently transporting 8th graders to our high school for the same purpose. The cost of transporting these students is anticipated in the current year to be $26,701.00 (including driver salary and fuel costs). These costs will be eliminated if we move to virtual classroom environments in which students remain in their "home" schools and receive instruction from a teacher in another location. In addition to cost savings, the student will not have his/her school day impacted by the travel time required. Technology costs will be reduced by an estimated $19,038.00 per year over the life of the grant and infinitely going forward. By installing fiber between our middle schools/high school and our central office location, We will eliminate our contract with Time Warner for providing that current support now.

ii. What assumptions must be true for this outcome to be realized?

Example: transition to "green energy" solutions produce financial efficiencies, etc.; or available digital resources are equivalent to or better than previously purchased textbooks.

This assumes that the costs associated with our network access remain consistent over time. The cost savings will continue, because we would be eliminating the contract for service, but the amount of savings assumes rates consistent to past years. Cost savings for the transportation portion assume that we are able to eliminate transporting of students across levels, looking at current student schedules and past student schedules we will be able to completely negate transportation costs.

iii. Describe any early efforts you have made to test these assumptions (pilot implementation, etc), or how these are well-supported by the literature.

We have an estimate for installation and activation of fiber between our middle and high schools and our central office location. We have compared that costs and future savings against our monthly contract with Time Warner for service of a lesser quality. We have estimated a cost savings of over $19,000 per year in addition to having better quality and more bandwidth. The capacity of our network will be expanded and give the potential for future growth. We have calculated costs associated with transporting students in FY 16 for subject accelerated classes in other school buildings. These costs would be completely eliminated if students could receive the same instruction from the same instructors in the current buildings. We have had some classes participate in virtual learning experiments with some success and believe this could be expanded into this model.

iv. List the specific indicators that you will use to monitor progress toward your desired outcome.

These should be specific dollar savings amounts. THESE MUST MATCH THE COST SAVINGS AS PROJECTED IN THE FINANCIAL IMPACT TABLE (FIT).

We anticipate an annual savings of $19,038.00 annually for network services. We will monitor the amount of money spent on Time Warner contracts in FY 16 and compare to future years for similar services. We will monitor transportation costs associated with transporting students for subject accelerated course in other buildings in FY 16 to costs in FY 17 and beyond. The FY 16 costs are anticipated to be $26,700.00. The costs include salary of drivers, as well as, fuel and mileage costs. We expect these costs to be completely eliminated.

v. List and describe pertinent data points that you will use to measure spending reductions, providing baseline data to be used for future comparison.

We will use technology department budget reports to monitor to costs savings associated with this project. We will document FY 16 expenditures for service with Time Warner for cable between our middle and high school locations to our central office location. We will compare that to costs in FY 17 and beyond which should show a significant reduction in those costs. Transportation budgets may not reflect the direct costs associated with transporting students for the purpose of accelerated courses. We will create a spreadsheet of costs for FY 16 associated with subject acceleration. We will compare those costs with those of FY 17 and beyond.

vi. How are you prepared to alter the course of your project if assumptions prove false or outcomes are not realized?

We will monitor the cost savings over time. If we do not realize the costs savings we anticipate with the virtual classroom environments, we have targeted other challenges that the virtual environments could help us meet. While we anticipate significant savings and results from our intended purpose, we could shift resources to some of our other challenges. We would like to address those challenges in the future, so the resources would be used wisely.

c. Utilization of a greater share of resources in the classroom

i. List the desired outcomes.

Example: change the ratio of leadership time spent in response to discipline issues to the time available for curricular leadership.

We want to eliminate the loss of instructional time for our elementary and middle school students in subject accelerated courses that are served in other buildings. Students in these scenarios lose between 30-45 minutes per day traveling across buildings. We would like to completely eliminate the lost instructional time by having students take the exact same course, with the exact same teachers, from within their current school buildings through virtual classroom environments. We want to increase the amount of devices available for our high schools students. This will provide for greater, more efficient access to information. This will also open the door for more electronic, even open sources resources at our high school level. We would like to explore greater reliance on technology in our high school courses and piloting some open source textbooks are they are found suitable for our courses.

ii. What assumptions must be true for this outcome to be realized?

Examples: improvements to school and classroom climate will result in fewer disciplinary instances allowing leadership to devote more time to...
vi. How are you prepared to alter the course of your project if assumptions prove false or outcomes are not realized?

Example: change in the number of school buses or miles travelled.

Comparison.

Example: consolidation of transportation services between two districts.

These should be measurable changes, not the accomplishment of tasks.

Example: neighboring districts have overlapping needs in administrative areas that can be combined to create efficiencies.

iii. Describe any early efforts you have made to test these assumptions (pilot implementation, etc), or how these are well-supported by the literature.

We have had students participate in online classrooms with success in the past. The criticism from teachers and students has been the missing interaction that occurs during a live lesson. The virtual classroom combines the flexibility that online classrooms provide and combines that with the live, irreplaceable experiences of interaction students have amongst peers and teachers. We provided 750 chromebook devices to Centerville High School this past school year. This influx of devices was welcomed by students and staff and we have seen that the devices are in constant use. Demand for the devices is greater than the capacity. It has become very difficult for teachers to schedule adequate time with the carts. We have seen tremendous growth in the integration of technology into classroom instructional practices. For example, the number of teachers using tools like Google Classroom to manage and collect student’s assignments electronically has dramatically increased since the beginning of last school year. With more students having better access to devices, teachers have become less reliant on print materials. Teacher requests for additional electronic resources has increased as well, not that we have seen success and students engagement with the devices.

iv. Please provide the most recent instructional spending percentage (from the annual Ohio School Report Card) and discuss any impact you anticipate as a result of this project.

Note: this is the preferred indicator for this goal.

You cannot quantify an amount of money spent on the time gained back in instruction. The change in delivery of courses to students who are subject accelerated provides them back valuable time in the classroom in other content areas with their peers and teachers. Time that was previously spent traveling. The most recent school report card shows the percentage of funds spent on classroom instruction to be 72.8%. About 75% of the funds from this Straight A grant would be spent directly on instruction. The only portion not spent directly on instructional costs would be the infrastructure required to increase our bandwidth and network capacity. With 75% of the resources directed to instruction, this should slightly increase the overall percentage of budgets spent on instruction compared to the most recent State Report Card data for Centerville City Schools.

v. List any additional indicators that you will use to monitor progress toward your desired outcome. Provide baseline data if available.

These should be specific outcomes, not just the accomplishment of tasks. Example: fewer instances of playground fighting.

We will certainly have dialogue and gain feedback from the classroom teachers and students about the success of the virtual classroom environments. We want to have input from all involved to make the experience the best that it can be. We will be able measure the numbers of students in these subject accelerated situations to see if the model has any impact. We will track the use of the additional chromebooks devices at Centerville High School. The checkout of the devices can be easily monitored. We will also be able to monitor the use of electronic resources and professional development of high school staff members. We annually seek feedback from our staff members about professional development they would like us to provide. An increase in their requests for professional development linked to technology use by students is a direct indicator of the increase of technology integration in our classrooms.

vi. How are you prepared to alter the course of your project if assumptions prove false or outcomes are not realized?

If the devices are not being used as frequently as we anticipate, we have needs at other levels within our organization. We always have the flexibility to redeploy the devices to meet our highest demand, since the devices are housed in mobile carts. We believe the highest demand is at Centerville High School, so we do not anticipate needing to adjust. However, we have looked at the overall picture of our organization and could move on the next priorities in our list.
The total projected expenses in the budget narrative exceed the total project costs in the budget grid.

Responses should provide a rationale and evidence for each of the budget items and associated costs outlined in the project budget. In no case should

10. Which of the following best describes the proposed project? - (Select one)
   a. New - Never before implemented
   b. Existing - Never implemented in your community school or school district but proven successful in other educational environments
   c. Replication - Expansion or new implementation of a previous Straight A Project
   d. Mixed Concept - Incorporates new and existing elements
   e. Established - Elevating or expanding an effective program that is already implemented in your district, school or consortium partnership

C) BUDGET AND SUSTAINABILITY

11. Financial Information: - All applicants must enter or upload the following supporting information. The information in these documents must correspond to your responses in questions 12-19.

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

   Enter Budget

   b. If applicable, upload the Consortium Budget Worksheet (by clicking the Upload Documents link below)

   Upload Documents

   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 of the workbook. Applicants must submit one Financial Impact Table with each application. For consortium applications, please add additional sheets instead of submitting separate Financial Impact Tables.

   737,226.00  12. What is the amount of this grant request?

   13. Provide a brief narrative explanation of the overall budget.

   Responses should provide a 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.

   The budget reflects $116,000 for capital outlay expenses to create "virtual" classroom spaces in each of our middle schools and in our high school. The costs of an individual virtual classroom include a Large Screen Interactive Display ($4000.00), USB Document Camera ($500.00), Bluetooth Wireless Microphone ($300.00) and subscription to Online Virtual Classroom ($100/month). This brings the total cost of a virtual classroom to an estimated $5800.00. We will implement these in one math classroom in each “family” of all three middle schools. There are a total of 10 families. We will also implement in 10 classrooms at our high school. 20 classrooms will total $116,000.00. The budget shows anticipated expenditures for STEM instructional materials and technology in the areas of 3-D design and printing, electronics and robotics. For each of the elementary technology classrooms we would purchase a 3-D printer ($5000.00 each), slicer software ($150.00 each), 3-D software (free), and 3-D doodler materials ($1200.00 per classroom). We would purchase “Little Bits Kits” for each of the 6 elementary technology classrooms ($650.00) each. We would purchase OzoBots classroom workshop kits ($1000.00 each) and Make Bot Robot Kits ($650.00) for each of those 6 classrooms as well. We would also purchase 10 ipads ($5000.00) and 10 windows laptop devices ($10,000.00) for each of the 6 technology classrooms and carts to store the devices ($3000.00). We currently use chrome devices in these rooms and need the additional technology to support work on these STEM initiatives. This brings the total expenditures for outfitting our elementary technology classrooms for STEM learning to $195,100.00. Professional development costs for the 20 classroom teachers with Virtual Classrooms and the 6 elementary technology teachers is included in the grant. Professional development would occur during the summer and staff would be paid an established “curriculum rate” of $25.00 per hour to be trained by our technology staff. The 20 classroom teachers are budgeted for 7 hours and the 6 technology instructors for 14 hours. This brings the total professional development expense budget to $5600.00. Purchase of 600 chromebooks for Centerville High School (including chrome management) is budgeted at $350.00 per chromebook. This totals $210,000.00 for chromebooks. Devices will be stored in carts of 30 devices. This requires 20 carts to be purchased at $2000.00 each. The total expense for chromebooks and carts is anticipated at $250,000.00. For purchasing and installing dark fiber between the three middle school locations and the high school location to our central office location will cost $137,585.00. In addition, to connect or "light up" the fiber it will cost $32,941.00. The fiber will allow us to have stronger network between these locations as we require more bandwidth. Increasing the amount of student devices at our high school and implementing virtual classroom spaces that will require more network bandwidth will put more strain on our existing service. This aspect of the project will give us greater capacity moving forward to handle more network access. The total cost of infrastructure costs will be $170,526.00.

14. Please provide an estimate of the total costs associated with maintaining this program through each of the five years following the initial grant implementation year (sustainability costs). This is the sum of expenditures from Section A of the Financial Impact Table.

   9,000.00 a. Sustainability Year 1
   9,000.00 b. Sustainability Year 2
   9,000.00 c. Sustainability Year 3
15. Please provide a narrative explanation of sustainability costs. Sustainability costs include any ongoing spending related to the grant project after June 30, 2017. Examples of sustainability costs include annual professional development, staffing costs, equipment maintenance, and software license agreements. To every extent possible, rationale for the specific amounts given should be outlined. The costs outlined in this 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.

We will be experiencing a cost savings of an estimated $19,038.00 a year from the installation of fiber lines between our middle/high schools and our central office location. The $19,038.00 can be used to offset the sustainability costs of 3-D printing supplies. The sustainability of these materials is anticipated to be $9000.00 each year beginning in Sustainability Year 1. This will help support the expansion of this project if that is feasible in the future.

17.5.16. What percentage of these costs will be met through cost savings achieved through implementation of the program?

Total cost savings from section B of the Financial Impact Table divided by total sustainability cost from section A of the Financial Impact Table. If the calculated amount is greater than 100, enter 100 here.

17. Please explain how these cost savings will be derived from the program. Applicants who selected spending reductions in the five-year forecast as a goal must identify those expected savings in questions 16 and 17. All spending reductions must be verifiable, permanent, and credible. Explanation of savings must be specific as to staff counts; salary/benefits; equipment costs, etc.

We will be realizing a cost savings of an estimated $19,038.00 a year from the installation of fiber lines between our middle/high schools and our central office location. The $19,038.00 can be used to offset the sustainability costs of 3-D printing supplies. The sustainability of these materials is anticipated to be $9000.00 each year beginning in Sustainability Year 1. This will help support the expansion of this project if that is feasible in the future.

82.35 18. What percentage of sustainability costs will be met through reallocation of savings from elsewhere in the general budget?

Total reallocation from section C of the Financial Impact Table divided by total sustainability cost from section A of the Financial Impact Table. Note: the responses to questions 16 and 18 must total 100%

19. Please explain the source of these reallocated funds. Reallocation of funds implies that a reduction has been made elsewhere in the budget. Straight A encourages projects to determine up front what can be replaced in order to ensure the life of the innovative project.

We anticipate a five year lifespan for devices. With the shift to more electronic resources, we have an opportunity to shift some existing school fees to a technology fee. This will help us sustain a replacement cycle for devices at Centerville High School. We average about 650 students per incoming freshman class, and that number historically has steadily increased each year towards 700 as the graduating class moves forward a grade level. If we begin during the grant year collecting a $50.00 technology fee per student by the end of Sustainability Year 2 we will have collected $195,000.00 which is nearly the amount needed to replace the devices (assuming the cost of a similar replacement device is about the same cost). This fee would not be an additional fee to students and families, rather we would take a portion from existing school/lab fees because we could transition to more electronic resources with better network access and more devices available for students. Because we expect the devices to last longer than Sustainability Year 3, we would also build a balance that would allow us to purchase additional technology if needed.

D) IMPLEMENTATION

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

This response should include a list of qualifications for the applicant and others associated with the grant. Please list key personnel only. 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 Key Personnel information by clicking the link below:

Add Implementation - Key Personnel

For Questions 21-23 please describe each phase of your project including its timeline, and scope of work. A complete response to these questions will demonstrate awareness of the context in which the project will be implemented and the time it will take to implement the project with fidelity. A strong plan for implementing, communicating and coordinating the project should be apparent, including coordination and communication in and amongst members of the consortium or partnership (if applicable). Not every specific action step need be included, but the outline of the major steps should demonstrate a thoughtful plan for achieving the goals of the project. The timeline should reflect significant and important milestones in an appropriate time frame.

21. Planning

a. Date Range
April 1, 2016 - June 30, 2016
22. Implementation (grant funded start-up activities)

a. Date Range July 1, 2016 - July 1, 2017

b. Scope of activities - include all specific completion benchmarks

July 1, 2016 - purchase and installation of the fiber network to occur over the summer prior to the start of the 2016-2017 school year.
Completion prior to Aug 1, 2016
July 2016 - training for classroom teachers and technology instructors
July 2016 - Purchase of 3-D printing materials, electronics kits, robotics kits
July 2016 - purchase and installation of the virtual classroom environments August 2016 - instruction of subject accelerated students through virtual classrooms
August 2016 - purchase of Chromebooks for Centerville High School September 2016 - implementation of additional 600 Chromebooks for students use at Centerville High School
November 2016 - implementation of student STEM lessons at the elementary level June 2017 - Review of progress with Straight A Fund by committee of staff members involved

23. Programmatic Sustainability (years following implementation, including institutionalization of program, evaluation and communication of program outcomes)

a. Date Range July 2017 - August 2017

b. Scope of activities - include all specific completion benchmarks

July 2017 - purchase replacement consumable materials for 3-D printing June 2018 - Review of progress with Straight A Fund by committee of staff members involved
July 2018 - purchase replacement consumable materials for 3-D printing June 2019 - Review of progress with Straight A Fund by committee of staff members involved
July 2019 - purchase replacement consumable materials for 3-D printing June 2020 - Review of progress with Straight A Fund by committee of staff members involved
July 2020 - purchase replacement consumable materials for 3-D printing July 2020 - purchase needed replacements to Chromebooks devices at Centerville High School June 2021 - Review of progress with Straight A Fund by committee of staff members involved

24. 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 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:

Instructional changes: At the elementary school level, we will see instructional shifts for all students in grades 2nd through 5th. We will implement new instruction that has not previously taken place at these levels. We will develop new curriculum and lessons for our technology classes that focuses on 3-D design, programming/coding, robotics, and electronics. These key STEM concepts will be embedded in already existing structure of "Tech Time" that our elementary students attend each week. We expect this becomes a springboard to additional STEM learning that will take place as the students move forward in school. At the high school level, the additional chromebooks for student use will help us to become more technology integrated and less reliant on print resources. We should be able to expand the number of classrooms that are shifting to students submitting assignments electronically, having access to web based resources 24/7, and provide more efficient tools and resources to students for organization and content management. Subject accelerated students will be instructed in an entirely different manner. This has the potential to have impact across our entire organization. The potential for a transformational shift to occur exists with success of educating and supporting students effectively in multiple locations at once.

25. Please provide the name and contact information for the person and/or organization who will oversee the evaluation of this project.

Projects may be evaluated either internally or externally. However, evaluation must be ongoing throughout the entire period of sustainability and have the capacity to provide the Ohio Department of Education with clear metrics related to each selected goal.

Please enter your response below:

Jeremy Miller jeremy.miller@centerville.k12.oh.us (937) 433-8841 ext. 2006

26. Describe the overall plan for evaluation, including plans for data collection, underlying research rationale, measurement timelines and methods of analysis.

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 shortfall. The applicant should provide information on how the lessons learned from the project can and will be shared with other education providers in Ohio. Note: A complete and comprehensive version of the evaluation plan must be submitted to ODE by all selected projects.

We will establish a committee to evaluate the progress and implementation of Straight A goals. The committee will consist of district...
leadership overseeing the project and staff member implementing the project. Establish pre/post assessments for elementary students in regards to their learning of STEM concepts from lessons during technology instruction. We will monitor budgets for technology and transportation to evaluate the cost savings anticipated with the transition to virtual classroom instruction for subject accelerated students. We will compare expenses for related expenses in the current year with the amount spent on the same expenses in years going forward. Observation of the virtual learning environments will occur multiple times throughout the school year. Student progress will be measured through student grades and state test exam results for grade accelerated students. Student grades have always been at an 85% or above for grade accelerated students, we will compare student grades in this new model with how students have performed in the past. Grade accelerated students have historically performed at accelerated and advanced levels of state test exams, we will be looking to equal or better that with this new model. We will discuss and seek input from the district Curriculum Advisory Council as to the impact and success of the grant. The Curriculum Advisory Council consists of a staff member and a parent from each school building. There are often at-large community members on the committee as well. The goals of the project will be shared with the committee and progress towards these goals will be shared twice a year for the life of the grant.

27. Please describe the likelihood that this project, if successful, can be scaled-up, expanded and/or replicated. Include a description of potential replications both within the district or collaborative group, as well as an estimation of the probability that this solution will prove useful to others. Discuss the possibility of publications, etc., to make others aware of what has been learned in this project.

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 this 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 noted here.

We believe the success of this project will lead directly into changes at our middle school level. Our elementary school students will be getting basic knowledge in 3-D design, robotics, engineering, electronics and programming/coding skills. This increase in critical base knowledge of STEM concepts can lead to more complex and advanced concepts with our middle school students prior to them entering Centerville High School. We will evaluate the success of this project and hope to build upon that success by incorporating a technology component into our middle school related arts rotation. The installation of fiber network gives us greater flexibility going forward to expand the use of our network beyond its current capabilities. The success of the virtual classrooms has potential to expand into other areas of our operation. If this proves to be as successful as we believe it will be, we could possible explore options like this to help with Home Instruction students and other students unable to attend classes.

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).

Jeremy Miller Director, Curriculum and Instruction Centerville City Schools
Consortium

Centerville City (043737) - Montgomery County - 2016 - Straight A Fund - Rev 0 - Straight A Fund

Sections

Consortium Contacts

No consortium contacts added yet. Please add a new consortium contact using the form below.
<table>
<thead>
<tr>
<th>Partnerships</th>
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No partners added yet. Please add a new partner by using the form below.
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<tr>
<th>First Name</th>
<th>Last Name</th>
<th>Title</th>
<th>Responsibilities</th>
<th>Qualifications</th>
<th>Prior Relevant Experience</th>
<th>Education</th>
<th>% FTE</th>
<th>Delete Contact</th>
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</thead>
<tbody>
<tr>
<td>Jeremy</td>
<td>Miller</td>
<td>Director, Curriculum and Instruction</td>
<td>Overseer implementation of the goals within this grant. Monitor grant progress and evaluate grant successes.</td>
<td>15 years administrative experience as principal and curriculum director. Previous experience with race to the Top grant management. Principal, teacher, assistant superintendent licensure.</td>
<td>15 years administrative experience as principal and curriculum director. Previous experience with race to the Top grant management.</td>
<td>Bachelor’s degree: Elementary Education, Master’s degree: Educational Leadership</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>Shannon</td>
<td>Morgan</td>
<td>Instructional Technology Coordinator</td>
<td>Oversight and management of STEM instruction components at elementary schools</td>
<td>Instructional Technology Coordinator for the past 7 years</td>
<td>Has worked with the technology instructors in designing and implementing their program. Has experience as a teacher and professional with technology, design, art, etc.</td>
<td>Masters in Ed. Leadership, Bachelors in Education</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>John</td>
<td>Carroll</td>
<td>Curriculum Coordinator</td>
<td>Grant Management after implementation</td>
<td>Prior experience with federal grant projects (Race to the Top), Management of CCIP.</td>
<td>Prior experience with federal grant projects (Race to the Top), Management of CCIP.</td>
<td>Bachelors in Ed, Mathematics, Masters in Ed. Leadership</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>Roger</td>
<td>Nefzer</td>
<td>Director, Technology</td>
<td>Overseeing the installation and activation of fiber</td>
<td>Experienced in business, technology and school administration. Background with technology and phone systems.</td>
<td>Director of Technology</td>
<td>Bachelor, Business</td>
<td>100</td>
<td></td>
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