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Adjusted Allocation 0.00

Remaining -978,800.00
Please respond to the prompts or questions in the areas listed below in a narrative form.

A) APPLICANT INFORMATION - General Information

1. Project Title: Alexander Schools STEM Project

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

The Alexander Schools STEM Project will create a culture of innovation by helping young minds discover the wonder of Science, Technology, Engineering, and Math by engaging students at an earlier age to improve preparedness for college and career. We plan to engage students while inspiring their interest in STEM subjects through rigorous, hands-on learning and real-world problem solving through innovative and effective learning opportunities. Students will achieve higher scores in reading, mathematics, and science, and some cases, have the opportunity to receive college credit through this project.

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.

3. Total Students Impacted:

1568 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:

- Pre-K Special Education
- Kindergarten
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12

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

First Name, last Name of contact for lead applicant
Kara Raines

Organizational name of lead applicant
Alexander Local School District

Address of lead applicant
6125 School Rd. Albany, OH 45710

Phone Number of lead applicant
740-698-8831

Email Address of lead applicant
kraines@alexanderschools.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
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._

_Current state or problem to be solved; and_

This project addresses the need to transform STEM education in the classroom, both for teachers & students, to meet the critical workforce need. From 2008-2018, STEM occupations are expected to grow by 17%- far more quickly than jobs in other fields. By 2018, the United States will have more than 1.2 million unfilled STEM jobs. According to one study, 65% of scientists and graduate students developed their interest in science in elementary school. Engaging K-12 students in STEM now, builds confidence, grows interest, employs critical thinking, and raises academic achievement to meet the critical workforce need.

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

> Alexander Schools STEM Project plans to solve the defined problem with 3 connected innovative initiatives. First, the STEM Project plans on implementing a K-12 comprehensive STEM curriculum. Project Lead The Way (PLTW) is the nation's leading STEM program. PLTW's world-class, activity-, project-, and problem-based curriculum and high-quality teacher professional development model, combined with engaged network of educators & corporate partners, help students develop the skills needed to succeed in our global economy. PLTW curriculum is grounded in research-based practices and aligns to Common Core State Standards for Math and English Language Arts, & Next Generation Science Standards. PLTW's professional development model provides teachers with the program content, pedagogy, instructional skills, & professional networking to help them succeed. PLTW prepares more students for careers in STEM-related fields, helping businesses & communities meet their workforce needs. Second, students in grades 7-12, this project will fund a 1-to-1 technology device program. The purpose for this 1:1 initiative is to support & sustain students' work at school & at home, as well as the desire to integrate technology across all disciplines. By integrating technology through content-based activities & projects, the school district reduces costs to provide separate computer skills classes. Additionally, studies support that instituting a 1:1 program espouses a process-oriented instructional philosophy, in which the process of learning & not just the content being learned, is a primary focus. K-6 students will experience a 2:1 technology device program in which technology will be integrated into each classroom to provide content-based learning using a multitude of technologies. Staff will participate in embedded, on-going professional development on digital learning, integrating the technologies into the classroom, and managing classroom learning through the use of a learning management system. As part of this new learning ecology within a 1:1 setting the potential value of increased intensity, relevancy, and personalization of learning as a result of shifting to a more learner-center dynamic. Third, additional innovative learning opportunities will be provided to all students through this project. Students will have a plethora of learning opportunities through distance learning. Students will experience blended learning opportunities that will strengthen students' skills in technology, but this blended learning approach reduces expenses for the district & increases students' exposure to educational opportunities that the district wouldn't be able to offer otherwise, such as dual-college credit courses, Mandarin Chinese, & virtual field trips. Educators will also use the blended learning approach for professional development exposing staff to both face to face workshops as well as online learning. Teachers will be integrating tools, apps, & resources as a regular, constant element of their teaching & classroom life. This 3-prong STEM initiative creates the culture of innovation that engages students at an earlier age that will improve preparedness for college & career, meeting the critical workforce needs.

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 completed, 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 following is the description and the specific ways it relates to the Straight A Fund goal._

By implementing this comprehensive & engaging STEM project, students will build confidence, employ critical thinking skills, & raise academic achievement because the curriculum is project- and problem-based grounded in research-based practices that aligns to Common Core State Standards for Math & English Language Arts, & Next Generation Science Standards. Additionally, students will experience blended learning opportunities which exposes students to educational opportunities that deepen understanding in Math, ELA, & Science which will also increase student achievement. Our Value-Added Gain Index district goal in math & ELA for our Gifted population is greater than or equal to +1 but less than +2; for our Lowest 20% is greater than or equal to -1 but less than +1; for our SWD is greater than or equal to -2 but less than -1.

- 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.)

_Add Partnering Members_
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)
- * 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.

978,800.00 State the total project cost.

* Provide a brief narrative explanation of the overall budget.

$144,400 will be allocated for purchased services with the breakdowns as such: -Instructional Purchased Services includes $108,300 is for 5 yr content distance learning content offerings, TecLink contract, design & implementation services, and PLTW participation fees. - Professional Development Purchased Services includes $36,100 includes year-long embedded PD & PLTW tuition for teacher training. $6500 will be allocated for salaries/ prof development for teacher stipends to attend summer PLTW training. $827,900 will be allocated for equipment/ instructional costs to purchase student technology devices, distance learning equipment, & PLTW equipment.

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

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

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...
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, coordinating and communicating 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: October 2013 - April 2014

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

We did not incur any barriers to successful completion of the planning phase.

18. Implementation - Process to achieve project goals

* Date Range: July 2014 - June 2015

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

The anticipated barriers pertain to the scope of the project. All three areas of the project will require copious planning and sharp execution of the plan by all involved parties. The barriers anticipated primarily existed only if the district attempted to execute this plan without the expertise of the partners.

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

* Date Range: July 2014 - July 2019

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

Anticipated Barriers: Allocation of time to collect, report, & disseminate data could be a potential barrier. Also, misperceptions regarding goals & process of evaluation can result in adverse attitudes. Collaboration is the key to overcome these potential barriers.

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:

Because of this project, a ‘new learning ecology’ will evolve in which students will engage in what John Dewey referred to as “productive inquiry,” which is to “actively pursue a problem, puzzle, point of fascination, object of wonder, of the like”. Since information is abundant & often provisional until validated, inquiry again becomes essential as the learner sifts, sorts, & critiques information en route to new ways of knowing & problem solving. Technology will serve as an extension of student thinking & learning, with students tapping into endless networks of imagination. The 1:1 & distance learning environment, layering with a K-12 STEM curriculum, provide places to explore ideas, pursue research questions, test hypotheses, compose thoughts, & draw conclusions. Students will become participatory community of learners which the focus is on authentic & active-meaning making. Active learning results in higher student achievement. Through technology, students can now engage with students globally to collaborate & learn. These global learning experiences & collaboration is essential skills businesses & communities are in need of to meet their workforce needs. The ongoing, embedded educator professional development will be intensive & connected to practice & focus on student learning & address the teaching of specific curriculum content. These technologies
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.

The findings by Robert H. Tai, EdD on the examination of the research literature on Project Lead The Way was used to evaluate & choose PLTW for the K-12 STEM curriculum. These findings found that PLTW students had higher mathematics & science achievements as measured by Iowa Test of Research on PLTW programs across the US; offers evidence that PLTW contributes to raising student achievement & motivation in science & engineering, both of which are essential to success in these career fields. A clear strength of the PLTW program is the intensive teacher professional development program. The data indicate that this organized & focused strategy to educating future PLTW teachers about the curriculum, equipment, and approach to education of PLTW courses play an essential role in the success of the PTLW students. The research from International Society for Technology in Education, 1101 Learning: Laptop Programs That Work by Pamela Livingston was used to support the 1:1 initiative. Research supports the need to support & sustain students’ work at school & at home, as well as the desire to integrate technology across all disciplines. 1:1 allows teachers & students to reach out & interact with the community at large. Finally, research from CITE (Contemporary Issues in Technology & Teacher Education) suggests embedded, ongoing teacher professional development to create a new learning ecology supports & provides experience & expertise that supports a global citizenry & provides dynamic educational reform.

Kara Raines, Director of Curriculum, Assessment, and Technology - Alexander Local School District kraines@alexanderschools.org (740) 591-5119 Leigh Ann McCray, Consultant, EdBusiness Solutions Inc., leighann@solutionsoninc.org (330) 401-3824

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.

Kara Raines, Director of Curriculum, Assessment, and Technology - Alexander Local School District kraines@alexanderschools.org (740) 591-5119

* 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).

The overall monitoring & evaluation plan will systematically & objectively monitor the project performance towards its objectives over time. The plan consists of a September baseline assessment, with additional assessments mid-year, with the final assessment being at the end of the school year following the State assessment schedule. Targets will be set at 3 points student growth measure between each assessment period with an overall yearly goal of 6 points student growth measure. These measures will meet the need of transforming STEM education in the classroom to meet the critical workforce need, raise student achievement in Common Core Math & ELA, & Next Generation Science, and expand educational opportunities while utilizing a greater share of resources in the classroom. This plan will reveal assumptions & expose gaps in which will allow educators to adjust learning & immediately address these issues. Formative assessments, such as pre-tests, concept mapping, rubrics, teacher feedback, self reflection, peer reviews, will be used to provide information to educators to adjust teaching & learning to improve student attainment of standards & skills. We will use similar tools & processes for our educators/staff to guide professional development. We have multiple data collection systems in place where this data will be collected/monitored/extracted. Summative assessments, such as PARCC, end of unit/ chapter tests, end-of course assessments, TeraNova, career-tech webxams, performance based evaluations, presentations, will be given periodically to gauge progress of student growth. Ohio's Statewide Longitudinal Data System (SLDS) will be used to enhance performance accountability with the use of 2 measures- the growth model & value-added computation. We will use similar tools & methods for educators/ staff to evaluate professional development.

* 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.

Should there be insufficient measured progress to meet the project objectives, the team will meet to determine contributing factors, address factors, &/or possibly adjust performance targets to be more realistic.

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 substantial value & lasting impact that this project hopes to achieve is to transform STEM education in the classroom, both for teachers & students, to meet the critical workforce need. Develop students' interest in science in elementary school. Lastly, engaging K-12 students in STEM builds confidence, grows interest, employs confidence, grows interest, employs critical thinking, and raises academic achievement to meet the critical workforce need.

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

By using the assessment schedule outlined in this plan, we will be able to monitor the anticipated outcomes a minimum of 3 times a school year. If at a specific assessment period the benchmark is not met, the grant team will work with staff to adjust instruction then reassess for desired benchmark results. Another anticipated outcome of the project, increase skilled labor for the critical workforce need, may not be easily benchmarked. We will be limited on benchmarking designed outcomes with students that have graduated from high school & are attending post-secondary institution or have entered the workforce.

* Spending Reduction in the five-year fiscal forecast

* Utilization of a greater share of resources in the classroom

By following our projected financial forecast, our benchmarks will be easily monitored & adjusted to meet our goal of a 5% cost reduction by utilizing a greater share of resources. At this point, we don't anticipate additional outcomes of this goal.

* Implementation of a shared services delivery model

* Other Anticipated Outcomes

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 can be replicated in other districts across Ohio. By having 2 partners on this project that work across Ohio, they both can promote the success of this program elsewhere along with assisting other interested districts with the planning, managing, & implementation of such project. Currently, other districts across the State have successful parts of this project. In such incidents, increase the scale & scope of the current program can be expanded through a phase in timeline. As funds become available at these other districts, these districts can implement any part of this project successfully in their district in a planned, phase in period of time.

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).
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