## Budget

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Adjusted Allocation | 0.00 |

Remaining | -1,089,664.00 |
This pilot project will beta test the new Project Lead the Way Elementary Lessons in Kindergarten-Grade 5 classrooms and create a new model for cost-effective delivery of professional development for elementary school teachers. Eight elementary schools in three types of Ohio school districts-large urban, suburban, and small rural, will be selected as test sites for this demonstration project. After the grant period, the long-term goal is to expand the PLTW Elementary Lessons program to elementary schools across Ohio.

5960 3. Total Students Impacted:

4. Lead applicant primary contact: - Provide the following information:
   First Name, last Name of contact for lead applicant: Steven Wendel
   Organizational name of lead applicant: Sinclair Community College
   Unique Identifier (RN/Fed Tax ID): NA
   Address of lead applicant: 444 West Third Street, Dayton OH 45402-1460
   Phone Number of lead applicant: 937-512-2841
   Email Address of lead applicant: steven.wendel@sinclair.edu

5. Secondary applicant contact - Provide the following information, if applicable:
   First Name, last Name of contact for secondary applicant: NA
   Organizational name of secondary applicant: NA
   Unique Identifier (RN/Fed Tax ID): NA
   Address of secondary applicant: NA
   Phone number of secondary applicant: NA
   Email address of secondary applicant: NA

7. Partnership and consortia agreements and letters of support - (Click on the link below to upload necessary documents).

Sinclair Community College is the Ohio Affiliate (PLTW Ohio) for the Project Lead The Way (PLTW) National network. Currently PLTW Ohio works with 150 school districts to provide and support PLTW Gateway to Technology offered in middle schools, and the PLTW pathways - PLTW Pre-engineering and PLTW Biomedical Sciences - offered in high schools. In its role as PLTW Ohio, Sinclair acts as the *Conduit for implementation of PLTW programs in Ohio schools *Provider of PLTW teacher professional development *Distributor of knowledge and best practices from other PLTW programs across the nation Sinclair Community College has extensive experience in managing large innovative federal, state, and privately-sponsored grants. Sinclair has managed over $150 million for 3,000 projects from, for example, the U.S. Department of Education, U.S. Department of Labor, U.S. Department of Health and Human Services, the National Science Foundation, and the Bill & Melinda Gates Foundation. In addition, Sinclair has managed numerous NSF faculty professional development grants on the following topics: advanced manufacturing, advanced automotive hybrid technology, project lifecycle managing the construction of a solid body guitar, work cell simulation, rigorous educational research methodologies, and chemistry instrumentation. Steve Wendel (Project Director) has been the Director of PLTW Ohio since 2008, as well as the Principal Investigator (PI) for the National Center for Manufacturing Education funded by the National Science Foundation (2007-2013). His experience in managing the National Center for Manufacturing Education solidified Sinclair as a national leader in manufacturing education. In addition, he has lead innovative grant funded projects such as the Ohio Project Lead The Way Biomedical Sciences Expansion project (Ohio Board of Regents 2010-2011, which expanded engaging, project-based biomedical educational opportunities to high school teachers and their students through the Project Lead the Way Affiliate). He is also serving as the PI for Leadership Capacity Building for Manufacturing and Manufacturing-related Programs (National Science Foundation 2013-2016, which will provide leadership development based on advancements reported in the current manufacturing and engineering education literature); and is the Co-Principal Investigator on the Virtual Online Tensile Strength Testing Simulation (National Science Foundation 2013-2016, which will develop and disseminate an open source, online virtual tensile strength testing simulation to be utilized by undergraduates engineering technology students and pre-engineering high school students in the Project Lead the Way network of 4,215 schools nationwide).

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

9. Which of the stated Straight A Fund goals does the proposal aim to achieve? - (Check all that apply)
   - Student achievement
   - Spending reductions in the five-year fiscal forecast
   - Utilization of a greater share of resources in the classroom

10. Which of the following best describes the proposed project? - (Select one)
   - New - never before implemented
   - Existing and researched-based - never implemented in your district or community school but proven successful in other educational environments
   - Mixed Concept - incorporates new and existing elements
   - Enhancing/Scale Up - elevating or expanding an effective program that is already implemented in your district, school, or consortia partnership

11. Describe the innovative project.

Project Lead The Way-Ohio Elementary Lessons Demonstration project will build on the proven STEM-focused Project Lead The Way (PLTW) curriculum and professional development model. This pilot project will beta test (1) new PLTW Elementary Lessons in classrooms in Kindergarten - Grade 5, and (2) a new model for cost-effective delivery of professional development for elementary school teachers. Elementary schools in three types of Ohio school districts - large urban, suburban and small rural - will be selected to be the test sites for this pilot. Incorporating the strengths of the current middle and high school PLTW programs, as well as lessons learned from a 2013-2014 pilot test of PLTW Elementary Lessons managed by PLTW-National in 43 schools across 23 states, this six-month project will:
   * Rollout the new PLTW-OH Elementary Lessons Program to selected urban, suburban, and small rural school districts *Facilitate participation by selected elementary schools in PLTW Elementary Lessons Program by covering the start-up costs for the 2014-2015 school year, including expenses for curriculum, Learning Management System software, supplies and materials, and tablet computers for teachers and classrooms *Develop and document an effective, cost efficient and scalable model for delivery of professional development to support engineering design and STEM learning experiences with Project Lead The Way Elementary Lessons in three different types of Ohio school districts - large urban, suburban and small rural *The new PLTW Elementary Lessons curriculum is based on the engineering design process used in PLTW courses in middle and high schools. The activities pose real world problems and challenge children to seek solutions using the design process model ask, explore, model, evaluate, and explain, stimulating critical thinking, problem solving, integration of knowledge, and collaboration. The lesson materials for the activity oriented curriculum are available as an electronic
1. Describe how it will meet the goal(s) selected above. If school/district receives school improvement funds/support, include a brief explanation of how this project will advance the improvement plan.

The two-fold impact of student engagement with the activities/projects/problem-based PLTW Elementary Lessons curriculum, and the increase in elementary teachers’ confidence and competence in teaching math and science will result in an increase in the number of students pursuing STEM careers in the state of Ohio over the five-year period. The Project will impact 4,560 students and 150 teachers in 15 schools.

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

1,089,664.00 ** Total project cost

** Provide a brief narrative explanation of the overall budget. The narrative should include the source and amount of other funds that may be used to support this concept (e.g., Title I funding, RTT money, local funding, foundation contributions, and details on any costs that will not be included in the budget (e.g., staff counts and salary/benefits, equipment to be purchased and cost, etc.).

Salary Costs-$233,885 PLTW Ohio Project Director (25% of time) to manage school recruitment process, professional development delivery model, project implementation advisory committee meetings, ($9,769) PLTW Elementary Program Manager (part-time: 22 hrs per week x $23/hr x 26 weeks) to assist with school recruitment and certification, coordination of project activities, professional development phase approach, project reporting, ($4,984) PLTW Project Director @ 31.5% ($3,077) to perform due diligence, analysis, and reporting ($900) Retirement/Fringe Benefits-$5,484 PLTW Project Director @ 31.5% ($3,077) PLTW Program Manager @ 16% ($2,105), Researcher @ 31.5% ($320) Purchased Services-$131,550 PLTW Elementary Lessons Core Training registration fees (210 teachers x $625 fee for summer institute ($131,250) Posting for PLTW mailings to Ohio Elementary Schools ($300) Supplies and Materials-$28,745 Participant supplies, (i.e. VEXIQ kits for each module and in-school training, ($3,000) PLTW ISD Workshop supplies, office supplies to implement professional development for 5 OH ISDs (Office) ($500) Total costs for professional development materials and training for PLTW Elementary Lessons in 8 school districts, including VEXIQ equipment kits for modeling designs ($650/kits/classroom X 252 classrooms) ($126,000) Tablets computers to support PLTW Elementary Lessons in 8 school districts (6 Rural districts/270 students; 1 tablet/student = 675 tablets); (1 Urban district/1 building/300 students; 1 tablet/student = 300 tablets); (1 Suburban district/5 buildings/2760 students; 1 tablet/4 students = 690 tablets) = 1440 tablets X $479/tablet ($685,760) Tablets computer for use by trainers providing PLTW Elementary Lessons Core Training at 5 OH ESCs ($470/tablet) X 5 ($2,350) Office supplies to support project activities ($1,500)

3. What new/recurring costs of your innovative project will continue once the grant has expired? If there are no new/recurring costs, please explain why.

31,438.00 ** Specific amount of new/recurring cost (annual cost after project is implemented)

** Narrative explanation/rationale: Provide details on the cost items included in the budget (i.e. staff counts and salary/benefits, equipment to be purchased and cost, etc.). If there are no new/recurring costs, please explain why.

After the project is implemented, Project Lead The Way Ohio will continue the part-time Project Manager position as a permanent part-time position. The position will be covered by PLTW operating receipts. The PLTW Elementary Lessons Demonstration program will set the stage for a drive to recruit additional elementary schools from around the state, requiring the continuation of the position to coordinate recruitment, registration, and professional development. The new cost will be covered by the excess of operating receipts over operating disbursements, as shown in the Financial Impact Table. The PLTW Ohio Director and the PLTW Project Director Program Manager will work with the schools participating in the PLTW Elementary Lessons Program to identify business and industry sponsors to support the annual participation fee and cost of materials.

4. Are there expected savings that may result from the implementation of the innovative project?

0.00 ** Specific amount of expected savings (annual)

** Narrative explanation/rationale: Provide details on the anticipated savings (i.e. expected savings in local and state funding, cost reduction, etc.). Since the structure of the Straight A Fund limits PLTW Ohio, as an institution of Higher Education, from partnering with school districts, it is difficult to ascertain the exact nature of any expected savings participating schools may achieve. Savings are anticipated, however, since much of the curriculum for PLTW Elementary Lessons will be customized electronically, replacing the need for schools to purchase curriculum materials. Savings will also be realized by replacing other professional development trainings with the new, cost-effective PLTW model.

5. Provide a brief explanation of how the project is self-sustaining. If there are ongoing costs associated with the project after the term of the grant, this explanation should provide details on the cost reductions that will be made that are at least equal to the amount of new/recurring costs detailed above. If there are no new/recurring costs, explain in detail how this project will sustain itself beyond the life of the grant.

Since the structure of the Straight A Fund prohibits higher education institution applicants from partnering with school districts during the proposal development process, the estimated amount of savings for participating schools will not be known until project implementation. Following the termination of each school participating in PLTW Elementary Lessons will incur annual program participation fees beginning in FY 2015. The participation fee covers required software rights, program support features to the curriculum, as well as the associated support systems such as end of course assessments and teacher online on-demand professional development offered by PLTW National. PLTW adheres to a cash flow philosophy based on an increase in number of schools participating in a program rather than increased unit cost. Conversations with schools during this proposal preparation process revealed that participating schools will offset the cost of the annual fee by replacing acquisition of other curriculum materials with the PLTW Elementary Lessons materials, and by substituting the PLTW professional development training for other types of professional development. The professional development model developed during the project will provide a cost-effective model for delivery of the PLTW Elementary Lessons professional development, tailored to the specific type of school district. The model requires training in high school by utilizing the National Educational Service Center. It will also maximize the cost effectiveness of using a train-the-trainer model, enabling the Lead Teachers to train the other teachers in a building to be PLTW Elementary teachers at little cost to the school. Also, the schools will have access to the online Professional Learning Community to share best practices and improve pedagogy. The PLTW Elementary Lessons Program allows for flexibility. A school may implement the program for certain grades with one or two STEM teachers. Other schools may want multiple teachers trained. Each school will decide the best use of its resources - whether it's most effective to send all teachers to the Core Training, or to designate one lead Teacher in a building to train all the teachers needed to implement the program in that building. Finally, PLTW requires each participating school to form a PLTW Partnership Team to build community support. The team will include representatives from employers, local workforce development organizations, economic development personnel, business, labor organizations, and secondary school districts.

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

13. Financial Documentation - All applicants must enter or upload the following supporting information. Responses should refer to specific information in the financial documents when applicable:

a. Enter a project budget

b. Upload the Straight A Financial Impact Template forecasting the expected changes to the five-year forecast resulting from implementation of this project. If applying as a consortia or partnership, please include the five-year forecasts of each school district, community school or STEM school member for review.

c. If subsection (b) is not applicable, please explain why, in addition to how the project will demonstrate sustainability and impact.

NA
D) IMPLEMENTATION - Timeline, communication and contingency planning

18. Fill in the appropriate dates and an explanation of the timeline for the successful implementation of this project. In each explanation, be sure to briefly describe the largest barriers that could derail your conceptual plan for this project. In your plan to proactively mitigate such barriers. In addition, the narrative should list the stakeholders that will be engaged during that stage of the project and describe the communication plan and application was developed.

Describe the ongoing communication plan with the stakeholders as the project is implemented. (Stakeholders can include parents, community leaders, foundation support and businesses, as well as educational personnel in the affected entities.)

* Proposal Timeline Dates

Plan (MM/DD/YYYY): 01/01/2014

* Narrative explanation

Communications during the application process included discussions among the PLTW Ohio Director, Steve Wendel and administrators and teachers from three types of school districts-rural, urban, and suburban. They have shared professional development ideas with three Educational Service Centers across Ohio, and gave an overview of project planning and implementation designs to PLTW National. During the planning phase, the PLTW Ohio Director will gather input from participating schools, PLTW National, and Educational Service Centers in Ohio to adopt and adapt the PLTW Elementary Lessons professional development curriculum, and develop models for professional development that will be effective and cost-efficient for each type of participating school district. The professional development curriculum will include: a. Readiness Training on core knowledge and skills, delivered online, on-demand through the PLTW electronic communications network. b. At least 2 days of Core Training on pedagogy and activity, project, problem-based learning, using a "Learn by Doing" approach. Core Training will include online and live training. PLTW Ohio will work with at least one school seeking a train-the-trainer approach. This Lead Teacher Training will prepare Lead teachers to deliver Core Training to other teachers c. An Engaged Network a professional learning community designed to identify effective teaching strategies and ensure teacher confidence and competence. The network will be enhanced by input from the evaluation results from the 2013-2014 alpha pilot test of the PLTW Elementary Lessons conducted by PLTW National. After the grant period, the Engaged Network will be enhanced by Ongoing Training developed by PLTW National Timeline: Planning: January 31: PLTW Ohio Program Manager will be hired. January 31: School districts will complete PLTW Elementary Lessons registration February 15: PLTW Ohio will communicate with superintendents and approved by school boards February - April: PLTW Ohio will work with participating schools and Educational Service Centers to develop professional development delivery models February - May: PLTW Ohio will work with PLTW National, the participating schools and teachers to develop the Engaged Network 12 session curriculum. May 1: PLTW Ohio will work with PLTW National to prepare the curriculum for the Readiness, Lead Teacher and Core Training March 1: PLTW Ohio will communicate with the teachers identified at each school to explain Readiness Training and gather input April - May: PLTW Ohio will schedule Lead Teacher and Core Training sessions Possible barriers include delays in the finalization of the profession development curriculums by PLTW National, need for further Readiness Training for selected teachers, and delays in identifying Master Teachers to deliver the Lead Teacher and Core Trainings.

Implementation (MM/DD/YYYY): 03/01/2014

* Narrative explanation

The planning and implementation phases will overlap as participating schools, Educational Service Centers, and PLTW National to continue to provide input on the most cost-efficient and effective professional development models for different types of districts. Timeline - Implementation: March 1: PLTW Ohio Program Manager will be hired March 1: Schools will purchase PLTW Elementary Lessons supplies and student learning materials. March 1: The Ohio Program manager will outline the required Readiness Training. April 1: Schools will select their professional development delivery model April 1: Schools will identify the teachers for training April 1: Schools will select their professional development delivery model April 1: PLTW National will identify Master Teachers to deliver the Lead Teacher and Core Trainings April 15: PLTW Ohio Program Manager will schedule the Lead Teacher Training in schools adopting the train-the-trainer delivery model April 15: Lead Teachers will be delivered the "train-the-trainer" model for professional development April 15: PLTW Ohio Program Manager will schedule the Core Training in accordance with the final professional development delivery models April 15: Participating teachers will complete Readiness Training May 31: PLTW Ohio will deliver the Lead Teacher Training in schools adopting the train-the-trainer professional development delivery model by May 31 April 2014: PLTW Ohio Program Manager will work with the schools and the Educational Service Centers to deliver Core Training by June 30, 2014 (Each school will finalize the framework for their Engaged Network (professional learning community) Possible barriers include delays in the finalization of the profession development curriculums by PLTW National, need for further Readiness Training for selected teachers, and delays in identifying Master Teachers to deliver the Lead Teacher and Core Trainings.

Summary evaluation (MM/DD/YYYY): 05/15/2014

* Narrative explanation

Project Director Steve Wendel will be responsible for the summative evaluation. Working with the Sinclair Office of Research, Analytics & Reporting and the PLTW Ohio Program Manager, the Project Director will conduct monthly reviews of evaluation data to track the project's progress. This Project Director and the PLTW Ohio Program Manager will be in continuous communication with the participating schools, PLTW National and the participating Educational Service Centers to monitor the progress and to ensure compliance on time and on budget. Outcomes will demonstrate the successful implementation of all planning and development steps by the end of the grant period: 1. Eight school districts will be enrolled in the Elementary Lessons Program for the 2013-2014 school year equipped with program materials and equipment materials 2. Eight school districts will be equipped with program materials and materials to offer the Elementary Lessons Program during the 2013-2014 school year 3. Participating teachers will complete Readiness Training May 31: PLTW Ohio will deliver the Lead Teacher Training in schools adopting the train-the-trainer professional development delivery model by May 31, 2014. June 30: PLTW Ohio Program Manager will work with the schools and the Educational Service Centers to deliver Core Training by June 30, 2014. Each school will finalize the framework for their Engaged Network (professional learning community) Possible barriers include delays in the finalization of the profession development curriculums by PLTW National, need for further Readiness Training for selected teachers, and delays in identifying Master Teachers to deliver the Lead Teacher and Core Trainings.

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

Following the conclusion of this project, the organization's practices of the Project Lead The Way - Ohio will expand to include the Elementary Lessons Program, extending from kindergarten through 12th grade. The project activities will contribute to improving and secondary students' critical thinking skills, promote commitment to the STEM-focused career pathways, enhance gains in PLTW STEM learning, and real-world problem solving skills. Although not intended as an introduction to the Project Lead The Way Gateway To Technology middle school program, or the Pathway to Engineering and Biomedical sciences high school programs, the Elementary Lessons Program is designed to lead to an increase in student knowledge about STEM concepts and increase their achievement in STEM subjects, participating educators and students have access to an effective curriculum that helps students connect, apply, and reinforce STEM concepts at a very early age. This will prepare students in later years for using authentic data resources for scientific inquiry, experimentation, and problem-based tasks that incorporate technology and technological and engineering design, as emphasized by the Core Curriculum and Next Generation Science Standards. Participation in this project will result in long-term changes to PLTW Ohio including an extension of school recruitment activities and program support to elementary as well as middle and high schools in Ohio. In addition, PLTW Ohio will include management of the logistics for professional development for teachers in the Elementary Lessons Program in its plan of operation.

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

20. 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.

In innovative aspect of this PLTW Ohio Elementary Lessons Demonstration Project is the professional development it will give elementary teachers. According to the September 2010 Report by the President's Council on Advisors on Science and Technology (PCAST 2010), teachers often lack both the knowledge necessary to teach science and math effectively, and the professional development to improve. Moreover, elementary teachers often approach STEM subjects with fear due to their lack of background. The strong emphasis placed by the PLTW program on high quality teacher training and support is a major advantage for this PLTW project. The project promotes critical thinking skills in elementary schools and is designed to improve the STEM-focused curriculum in elementary schools across Ohio. Teachers will be trained in the PLTW Elementary Lessons modules effectively. Both research and practice demonstrate the proven success of the middle and high school PLTW programs support the goal of this project to increase student achievement. The professional development will lay the groundwork for that success. Research evaluating the effectiveness of professional development shows that programs which integrate STEM content knowledge with pedagogical training in teaching the subject matter, improve both teacher knowledge and student achievement. A variety of studies show the following positive impacts of professional development targeted toward STEM teachers: increased knowledge in math and science plus pedagogical training and follow-up on teaching practices. The record of the current PLTW programs in middle and high schools demonstrates the positive impact of the content and delivery of PLTW professional development on student achievement. A research study with a sample size of over 26,000 students, found that the 1,200 students enrolled in PLTW in the state of Iowa had higher mathematics and science standardized test scores than their peers. The study also found the students who were enrolled in PLTW had higher standardized test scores than the students who were not enrolled in PLTW. Despite the promising results in the PLTW program, there are still barriers that need to be addressed. For example, the program has faced challenges in recruitment and retention of participating schools. The PLTW program has the potential to significantly impact the STEM pipeline by increasing the number of students interested in STEM careers. However, the program needs to overcome these challenges to achieve its full potential.
21. Is this project able to be replicated in other districts in Ohio?

**Yes**  **No**

22. If so, how?

All school districts in Ohio are eligible to participate in all PLTW programs, including the Elementary Lessons Program. As the PLTW Ohio Affiliate, Sinclair serves over 150 school districts in Ohio, demonstrating a strong capacity to mobilize participation by secondary schools. In addition, PLTW Ohio has a proven track record of outreach to traditional and nontraditional stakeholders. PLTW Ohio also convenes and works closely with the PLTW Ohio Executive Council composed of representatives from industry, higher education and K-12 across Ohio, which operates at the state level. At the conclusion of this project, PLTW Ohio will continue outreach to Ohio elementary schools to inform them about the potential of the PLTW Elementary Lessons Program. The PLTW Elementary Lessons Program is designed for easy replication in any elementary school. The curriculum has been developed to be easily incorporated into the syllabus for an elementary school math and/or science program. In addition, it is standards-based, and aligned with both Common Core and Next Generation Science Standards. The delivery models for PLTW Elementary Lessons professional development will include regionally accessible alternatives across the state. In addition, this project will result in the option of an easily adapted building by building trainer-the-trainer professional development delivery model.

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

PLTW Ohio Elementary Lessons Demonstration project will achieve the following impact: 1. Elementary schools in eight (8) Ohio districts will be fully equipped to roll out the PLTW Elementary Lessons Program in the 2014-2015 school year. 2. PLTW Ohio will beta test new elementary STEM focused professional development materials with 210 elementary teachers. 3. 210 elementary teachers will be trained in the primary school science and mathematics knowledge content and teaching pedagogy of the PLTW Elementary Lessons program. 4. 210 elementary teachers will be trained to use the technology of tablet computers to teach the engineering design process, and mathematics and science concepts. 5. 210 elementary teachers trained to teach the PLTW Elementary Lessons Program will participate in the Engaged Network professional learning community to share effective teaching strategies and best practices on an ongoing basis. 6. 5760 elementary students in six rural elementary schools, one urban elementary school, and one suburban school district will work in teams on tablet computers to learn how technology is used in engineering to solve everyday problems. 7. Three (3) effective and cost efficient models for delivery of elementary level professional development to rural, urban and suburban school districts will be developed and documented. Currently PLTW Ohio works with 150 Ohio school districts to provide and support the PLTW courses. After the project has ended, PLTW Ohio will work with PLTW National to offer the PLTW Elementary Lessons Program to those 150 Ohio school districts, as well as all other elementary schools in Ohio.

24. What are the specific benchmarks related to the fund goals identified in question 9 that 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.

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<th>Benchmark</th>
<th>Description</th>
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<tr>
<td>1.</td>
<td>Elementary schools in eight (8) Ohio districts will be fully equipped to roll out the PLTW Elementary Lessons Program by April 30, 2014.</td>
</tr>
<tr>
<td>2.</td>
<td>Elementary schools in eight (8) Ohio districts will be equipped to roll out the PLTW Elementary Lessons Program by February 28, 2014.</td>
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<tr>
<td>3.</td>
<td>There will be 210 elementary teachers trained in the primary school science and mathematics instruction pedagogy of PLTW Elementary Lessons program by April 30, 2014.</td>
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<tr>
<td>4.</td>
<td>Eight Ohio school districts will be enrolled in beta testing of the Project Lead The Way Elementary Lessons by February 28, 2014.</td>
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<tr>
<td>5.</td>
<td>Eight elementary school buildings will be equipped with Project Lead The Way Elementary Lessons program equipment and materials by April 30, 2014.</td>
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25. Describe the plan to evaluate the impact of the concept, strategy or approaches used.

* 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 program's progress.)

Due to the short six-month grant period, short-term objectives will be achieved within the first four months of the grant period; long-term objectives will be achieved during the last two months of the grant period. Goal: Lay the groundwork for increased elementary school and middle school student achievement by providing positive STEM learning experiences with the Project Lead The Way Elementary Lessons activities-projects-problem-based curricula supported by effective and cost-efficient professional development for their elementary school teachers. Benchmark 1: Eight Ohio school districts will be enrolled in beta testing of the Project Lead The Way Elementary Lessons by February 28, 2014. Benchmark 2: Eight elementary school buildings will be equipped with Project Lead The Way Elementary Lessons program equipment and materials by April 30, 2014. Benchmark 3: A train-the-trainer model for Core Training will be in place with at least one school district by May 31, 2014. Benchmark 4: Results from the Straight A project beta testing will be compared with alpha testing conducted by PLTW National by May 31, 2014, to create an action plan for maximizing effectiveness of the program prior to scaling it throughout the state. Benchmark 5: There will be 210 elementary teachers trained in the primary school science and mathematics instruction pedagogy of PLTW Elementary Lessons program by June 30, 2014.

PROGRAM ASSURANCES: I agree, on behalf of this applicant agency and/or all identified partners to abide by all assurances outlined in the Assurance section of the CCIP. In the box below, enter “Accept” and indicate your name, title, agency/organization and today’s date.

Accept Steven L. Johnson, Ph.D. President and CEO Sinclair Community College 10/25/13