## Budget

Cincinnati State STEM Academy (013240) - Hamilton County - 2014 - Straight A Fund - Rev 0 - Straight A Fund - Application Number (474)

U.S.A. S. Fund #:
Plus/Minus Sheet (opens new window)

### Straight A Fund
Applcation Number (474)

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**Adjusted Allocation** 0.00

**Remaining** -605,590.00
Applicants shall respond to the prompts or questions in the areas listed below in a narrative form.

A) APPLICANT INFORMATION - General Information, Experience and Capacity

1. Project Title: Dual Credit Meets STEM

2. Executive summary: Provide an executive summary of your project proposal and which goal(s) in question 9 you seek to achieve. Please limit your responses to no more than three sentences.

Cincinnati State STEM Academy will meet its goal of improving student achievement by implementing a comprehensive STEM curriculum, by equipping students and teachers with the tools they need to be successful and by developing a public relations strategy to attract business resources. As a result, students will earn dual credit toward college, helping them decrease costs associated with their educations. The program encourages student engagement and prepares students for college and the pursuit of a career in the STEM disciplines.

230 3. Total Students Impacted:

4. Lead applicant primary contact: - Provide the following information:
First Name, Last name of contact for lead applicant: Stephanie Morton
Organizational name of lead applicant: Cincinnati State STEM Academy
Address of lead applicant: 3520 Central Parkway, Cincinnati, OH 45223-2690
Phone Number of lead applicant: 513.569.1820
Email Address of lead applicant: stephanie.morton@cssa-k12.org

5. Secondary applicant contact: - Provide the following information, if applicable:
First Name, Last name of contact for secondary applicant: N/A
Organizational name of secondary applicant: N/A
Address of secondary applicant: N/A
Phone number of secondary applicant: N/A
Email address of secondary applicant: N/A

6. List all other participating entities by name: Provide the following information for each additional participating entity, if applicable: Mention First Name, Last Name, Organizational Name, Unique Identifier (IRN/Fed Tax ID), Address, Phone Number, Email Address of Contact for All Secondary Applicants in the box below.

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

* Letters of support are for districts in academic or fiscal distress only. If school or district is in academic or fiscal distress and has a commission assigned, please include a resolution from the commission in support of the project.

* If a partnership or consortium will be established, please include the signed Straight A Description of Nature of Partnership or Description of Nature of Consortium Agreement.

8. Please provide a brief description of the team or individuals responsible for the implementation of this project including relevant experience in other innovative projects. You should also include descriptions and experiences of partnering entities.

The team responsible for implementing the project is the Cincinnati State STEM Academy (CSSA) superintendent, the principal and the treasurer. These people will acquire and evaluate quotes for equipment, assess, evaluate and purchase the curriculum, and work with Cincinnati State Technical and Community College (CSTCC) and the curriculum provider to design relevant professional development sessions for the STEM Academy faculty. These personnel will interview and select marketing professionals to develop print materials, a web site and social media that will reach and attract prospective students who meet the academy’s academic standards. In addition to professional development sessions, CSTCC will also provide information technology services, including hardware and software installation and troubleshooting. Its personnel will provide technical support for the academy’s faculty and staff. Both organizations will participate in project evaluation, meeting quarterly to review challenges and successes while sharing lessons learned. As a result of these meetings, both organizations will implement any needed changes to processes and address any problems that arise. Dr. Stephanie Morton is the CSSA superintendent. She was the Principal of Jacob Center Middle School which housed a Palsdia, Cincinnati Academy of Math and Science (CAMS) and a Montessori Program. As an instructional leader, Dr. Morton was recruited to lead Western Hills University High School which merged with Western Hills Engineering High School to form a school focused on college preparation and engineering. She added middle school to the campus, increasing the student population from 800 to 1300 students. Western Hills University High School moved from Continuous Improvement to Effective under Dr. Morton’s leadership. Dr. Morton introduced innovative ways to expose students to technology. She managed more than 50 community partnerships and improved student achievement by helping students overcome social, emotional and academic barriers. Ms. Yvetta Macon is the principal and curriculum director of the CSSA. She is the instructional leader of the STEM Academy. Ms. Macon has recruited and hired 8 teachers who meet the highly qualified teacher requirements of the Ohio Department of Education. Each are certified in one or more STEM disciplines. As the curriculum director, Ms. Macon scrutinized several STEM aligned curricula and with collaborative and strategic process made the choice of the GRADPoint curriculum. Ms. Macon is a certified school turnaround specialist and has successfully turned around two schools. Ms. Macon has a track record of improving student achievement and is a 26-year educational veteran.

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
- 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.

Cincinnati State STEM Academy (CSSA) is the only community high school in Ohio located on a college campus. The academy opened in 2012 as an alternative school for credit recovery. The board decided to convert the school to a STEM Academy in the 2013 academic year. There is a cohort of students working to graduate who are using a blended curriculum. Of the 149 students, 79 are from the Cincinnati Public Schools. Others represent districts throughout Cincinnati. The student body comprises African-Americans (72%), Whites (22%), Mixed Race (5%), Hispanic (1%) and Asians (<1%). Males and females are evenly represented and 76% of students are disadvantaged. The administration is developing a STEM Academy for students able to earn dual credit at Cincinnati State Technical & Community College (CSTCC). To attract these students, CSSA needs a comprehensive marketing plan and public relations strategy. This strategy will also help the school build relationships with Cincinnati’s manufacturing, high-tech and engineering companies that may result in additional resources, and in volunteers, mentors and tutors. STEM subjects interest many students in high school but they frequently do not complete those majors in college. Research ties this to a lack of STEM resources, such as inadequate laboratories, lack of access to current technologies, and few STEM-degreed educators with experience in science, engineering, mathematics and technology. There are also few mentors to encourage students in STEM disciplines and to help them develop study habits that result in academic and career success. Low income students are at a disadvantage. Those living in poverty and dysfunctional families are likely to have poor vocabulary skills, making it difficult to understand...
information, communicate ideas, and to interact with adults. For these students, STEM subjects can be a key to academic success, since they have their own vocabularies and rules that are expressed in numbers, equations or processes, accessible by study and persistence. Students like female underrepresentation in the sciences indicate that women are attracted to fields in which they can improve the world. This is an emphasis on the science and mathematics skills they are pursuing. Many studies show that females outscore their male peers in math and science until middle and high school when peers and society pressure females to turn away from science. At this point, relationships with successful STEM-career women are key. Using Straight A Funds, the academy will address five problems affecting academic success. First, CSSA lacks hardware and software for computer and chemistry lab. Second, the school does not deliver the STEM curriculum. Third, the faculty wants to increase its ability to integrate technology into the classroom. Fourth, CSSA lacks the technical expertise to install, support and maintain computer hardware and software. Finally, the academy needs a public relations campaign that attracts academically-qualified students and business resources. CSSA will meet the goal of improved student achievement by providing students with the resources they need to participate in dual credit college-level classes. First, purchase hardware, software and equipment for a computer lab, classrooms, and a chemistry lab. Second, acquire and implement a school-wide STEM curriculum, the GRADPoint program by Pearson. Third, work with CSTCC and with the University of Cincinnati to design STEM-centered professional development opportunities. Fourth, contract with CSTCC or other providers for technical assistance installing, supporting and maintaining computer hardware and software. Fifth, identify a public relations partner that will develop and implement a media strategy to attract qualified students and business resources.

3. 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 goal of this student achievement objective is to provide students with the resources they need to participate in dual credit college-level classes. This will achieve this goal by meeting the following objectives. The first is to improve academic achievement. CSSA will address this goal by meeting the following objectives.

1. Improve student achievement.

a. Describe how the project will provide the tools and methods for student achievement. CSSA will achieve this goal by meeting the following objectives. 1. Improve academic achievement. CSSA will achieve this goal by meeting the following objectives.

2. Establish a STEM curriculum for all students.

3. Support technology use for STEM students.

4. Maintain, upgrade and troubleshoot all equipment.

5. Identify a public relations campaign to attract qualified students.

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.

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

Financial Impact Template is attached.

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

605,590.00 * 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, RTF money, local foundation support, etc.) and details on the cost of services and equipment.

The overall project budget of $605,590 is comprised of $124,780 in purchased services and $480,810 of supplies and materials. The largest purchased services expenditure is for tutoring services for STEM Academy students during the last six months of FY14 in the amount of $66,780. This will be a one-time purchase and the rationale for it will be sustained is included in the financial assumptions section of the Financial Impact Template.

The project will be self-sustaining as student enrollment increases and as leadership effectively manages the budget, expands academies/youresources, and manages and develops strategic relationships. The board and administration expects to add 70 students each year until enrollment reaches 230 students. Expenses for the acquisition of equipment, software and curriculum are non-recurring. The academy has been operating for one year and it is expected that one-year development will become the foundation of its computer and chemistry laboratories. As the academy increases enrollment, its budget will rise to support costs associated with adding, maintaining and replacing equipment.

D) IMPLEMENTATION - Timeline, communication and contingency planning

15. 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.

- Provide a specific amount of new/recurring cost (annual cost after project is implemented)

- Narrative explanation/rationale: Provide details on the cost of 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.

While we do not project any new or recurring costs as a result of the expenditure of Straight A Grant funds this year, we als do not expect any savings. The STEM Academy already operates on a low-cost and efficient budget.

17. 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 and how the amount of savings is detailed above. If there are no new/recurring costs, explain in detail how this project will sustain itself beyond the life of the grant.

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 delay your concept or timeline for implementation and 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 that occurred as the application was developed.

By 12/20/2013, all stakeholders will have input in the planning phase. The administrative staff, two students, two parents, and CSTCC representatives will meet every two weeks to work on our plan. We will make a schedule of development planning sessions that will focus on identifying the online research base STEM curriculum that is aligned to the CCSS. Stakeholders will work strategically to research, identify and present STEM connected support software programs, and innovative state of the art technology equipment which will provide our students with instructional and learning
supports they will be poised to compete in the 21st century global market. The planning committee will work in the 21st century global market. The planning committee will work in the
1. Narrative explanation

All stakeholders will start the new year off ready to do their parts. As soon as we are issued our funds by the state we will spring into action. Our budgets will be closely monitored by our treasurer as
orders are placed. We will start implementing the plan as the resources arrive. We will move forward with our professional development and training of staff to prepare our teachers to be competent
in their instructional delivery. To provide support to teachers, administrators will conduct data professional learning community (PLC) meetings to analyze data, share effective instructional strategies,
1. Narrative explanation

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

Changes to instruction include the implementation of the purchased STEM curriculum for all students. Integrating technology into the classroom will require instructors to learn, practice and implement new
skills, different teaching approaches and implement new ways to collect and analyze students’ performance data. Teachers will need to learn how to use these data to inform changes in their teaching
styles and how they work with students to increase their achievement, not just on standardized tests, but in their daily coursework. Cincinnati State STEM Academy’s new Dual Enrolment Program allows
students to earn college credit while still attending high school on the college campus. Students schedule high school and college classes during the school day while experiencing college. Eligibility
requires a passing score on the Compass Test. Adjunct professors at CSTCC will teach these dual credit courses. Courses taken by CSSA students are transferable to Cincinnati State and to four year
colleges and universities. Six courses are dual credit: Introduction to English, College Algebra, Graphic Design, Vocal Ensemble, Engineering and Introduction to Art. Tuition is free for high school students.
The organization’s practices will change and adapt as the students participate in dual credit college classes. At these higher levels, students will challenge teachers and classmates to use more creatively
and critically think and complete classroom work. With this funding, there will be two computer labs with 60 computers and two servers. Students will learn to use computers in both Macintosh and PC configurations. The computers will have the following software: Microsoft Office, Movie Maker/Imovie, Geometer’s Sketchpad, Algebra 2, Live Math, Inspiration, Working 2D Model,

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 today’s globally competitive and technologically driven economy, the jobs available to our country’s young people increasingly depend on the quality of the education and skills they acquire,” said Brad
smith, Microsoft’s general counsel and senior vice president. “If our students are to compete successfully for the jobs of the future, we must better prepare them to be lifelong learners and give them a
strong foundation in science, technology, engineering and math.” (Microsoft, 2011) 1 U.S. students lag behind their foreign counterparts in STEM despite the importance of these subjects to the country’s
1. Narrative explanation

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

22. If so, how?

With adequate planning, schools can move their curriculum from a traditional academic format to STEM education using a blended curriculum that changes with the needs of different student cohorts. As
schools integrate STEM education, they will need to add enhanced technology, require attendance in professional development opportunities for staff, recruit professionals who are degreeed in science,
technology, engineering and mathematics and impart high expectations in students that help them develop the academic skills and work ethic it takes to be successful in these career fields.

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

Student outcomes Short Term 80% of 150 students show increased achievement as seen by their performance on the OGT in the 2014-15 academic year. Long Term 85% of students who earn dual credit
courses at CSSA and CSTCC graduate with an Associate’s Degree in less than two years. 75% of students who earn their Associate’s Degree continue to a Bachelor’s Degree program. 50% of students who enter
a Bachelor’s Degree program graduate within five years.

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.

Deal #1 - Improved student achievement by Spring of 2014 Increase OGT reading scores by 3% - 5%. Increase OGT writing scores by 3% - 5%. Increase OGT social studies by 3% - 5%. Increase OGT math
by 2%. Increase OGT science by 2%. Benchmark #1: August: week of August 26th - Baseline - Teachers administer content specific formative assessments aligned to Common Core State Standards
(CCSS) to derive a baseline academic student achievement level. Benchmark #2: January: week of January 27th - Teachers administer content specific formative assessments aligned to CCSS to
score students in order to identify areas that need improvement. Benchmark #3: August - week of August 10th - Teachers administer the OGT assessments in all content areas. This will be a summative assessments measure aligned to CCSS. Benchmark #4: May: week of May 12th - Teachers administer semester exams in all content areas. This will be a summative assessment measure aligned with CCSS.

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).

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

To evaluate the effectiveness of the curriculum, teachers will develop ongoing student learning objectives. Teachers will administer the benchmark assessments and analyze the data assessment
results. The Pearson GRADPoint curriculum will be used as a measure to evaluate student mastery and determine the assessment results. Teachers will provide deliberate instruction using Pearson
GRADPoint, and additional instructional software to support students’ conceptual understanding of the skills taught by teachers. The additional STEM and CCSS-aligned software that will be used by the
STEM teaching staff will include: geometric's sketchedpad, algebrotor, live math, working 2D model, dynamic designer motion, AutoCAD2013, and creative physics. Tutors will address any deficiencies that
the formative assessments reveal and teachers will create intervention plans to address weaknesses and remediation needs.

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 timeframe. The Governing Board of the Straight A Fund
reserves the right to evaluate the data and request additional information in the form of data, surveys, interviews, focus groups, and any other related data to the legislature, governor, and other interested
parties for an overall evaluation of the Straight A Fund.
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 "I Accept" and indicate your name, title, agency/organization and today's date.

I ACCEPT. Dr. Stephanie Morton, Superintendent of the Cincinnati State STEM Academy - October 25, 2013