

Budget

Beavercreek City (047241) - Greene County - 2014 - Straight A Fund - Rev 0 - Straight A Fund - Application Number (269)

U.S.A.S. Fund #:

Plus/Minus Sheet (opens new window)

Purpose Code	Object Code	Salaries 100	Retirement Fringe Benefits 200	Purchased Services 400	Supplies 500	Capital Outlay 600	Other 800	Total
Instruction		41,500.00	8,500.00	726,289.92	0.00	3,090,124.00	0.00	3,866,413.92
Support Services		0.00	0.00	0.00	0.00	0.00	0.00	0.00
Governance/Admin		0.00	0.00	0.00	0.00	0.00	0.00	0.00
Prof Development		0.00	0.00	0.00	0.00	0.00	0.00	0.00
Family/Community		0.00	0.00	0.00	0.00	0.00	0.00	0.00
Safety		0.00	0.00	0.00	0.00	0.00	0.00	0.00
Facilities		0.00	0.00	0.00	0.00	0.00	0.00	0.00
Transportation		0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		41,500.00	8,500.00	726,289.92	0.00	3,090,124.00	0.00	3,866,413.92
Adjusted Allocation								0.00
Remaining								-3,866,413.92

Application

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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: Sparking Innovation: Individualizing Learning with a Customized 21st Century Educational Platform

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.

This proposal will directly impact student achievement by preparing all K-8 students for college and career readiness by the development and implementation of a rigorous, individualized approach to intervention, remediation, and enrichment, and through the utilization of emerging technologies and proven teaching and learning strategies. Through the use of cutting edge technologies, including iPads and individualized learning plans, students will be immersed in high-level differentiated instruction that will support individualized growth. By utilizing valid and reliable diagnostic assessments and adding individualized Common Core-aligned Math and English Language Arts resources, this project increases the resources available to our students and enables them to move beyond the traditional limitations of classroom and grade-level course work, and into unique, specialized, and personally-defined curriculum.

5013 3. Total Students Impacted:

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

First Name, last Name of contact for lead applicant: Susan Hayward, Ph.D.

Organizational name of lead applicant: Beavercreek City Schools

Unique Identifier (IRN/Fed Tax ID): 047241

Address of lead applicant: 3040 Kemp Road; Beavercreek, OH 45431

Phone Number of lead applicant: 937-426-1522

Email Address of lead applicant: susan.hayward@beavercreek.k12.oh.us

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

Unique Identifier (IRN/Fed Tax ID): 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.

N/A

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.

[UploadGrantApplicationAttachment.aspx](#)

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 the implementation of this project include: Superintendent, Treasurer, Curriculum Director, Special Education Director, Technology Director, Curriculum Department, and K-8 Principals. Each of these individuals possesses unique leadership strengths and communication skills that, when combined, provide a wealth of expertise for the implementation of large-scale, district-wide initiatives. Beavercreek City Schools has received and implemented several grants of various amounts, each of which were implemented with fidelity. Dr. McGlothlin, Superintendent, Dr. Hayward, the Curriculum Director, and Pat Shannon, the Special Education Director, have implemented large-scale projects. These include: Ohio Schools to Watch, Response to Intervention K-12, OTES Implementation Pre-K-12, Student Growth Measures Development Pre-K-12, Race to the Top, Middle School Model, Second-shift School, Virtual Learning Academy, and After-school learning programs. In addition, Dr. Hayward has served as an E-Tech reviewer for Ohio's Online State Professional Development Plan, e-Read Ohio facilitator, and expert reader for the Ohio Department of Education Reading First grants.

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.

The Problem: Despite in-class differentiation, interventions, enrichments, and leveled instructional courses, individual student needs are not being fully met within our district. Analysis of our K-3 diagnostic and 4-8 value-added data shows that our students do not make the desired academic growth based on their individual ability levels. The Innovative Solution: Through this project proposal, we seek to put an iPad, prepared with additional, personalized English Language Arts (ELA) and Math Common Core State Standards (CCSS) aligned content, into the hands of each K-8 student to meet their individual academic needs. Student goals will be developed by Math and ELA Teachers, based on assessment data, to strengthen student achievement on an individual student level. The iPad will be integrated into literacy and math learning centers as well as utilized during designated targeted intervention/enrichment time. This project utilizes Northwest Evaluation Association (NWEA) Measures of Academic Progress (MAP) and MAP for Primary Grades (MPG) as the primary assessment tool. The assessments, given three times a year, provide a wealth of detailed information for teachers, parents, and administrators, allowing us to accurately target individual student academic needs and measure student achievement in Math and ELA. NWEA assessments test students differently, allowing teachers to see their students as individuals, with their own knowledge base. With flexible delivery options, the assessments scale to fit the needs of each student. As a student responds to questions, the test responds to the student, adjusting up or down in difficulty. eSpark, an educational technology corporation, utilizes the data collected from NWEA assessments to develop a rigorous, adaptive, supportive, and personal curriculum for each K-8 student in Math and ELA. Upon analysis of NWEA data, students and teachers collaborate to identify targeted areas of learning to occur within students' eSpark learning platform. eSpark's innovative design provides teachers and students access to powerful learning tools, including more than 100,000 educational apps, electronic books, podcasts, and tablet-friendly websites on the iPad platform. eSpark leverages open third-party content by curating it according to quality, CCSS alignment, and evidence of effectiveness and creating individualized plans to guide students through personalized "quests," which include formative assessments, instructional videos, performance tasks, and educational apps that have been vetted and sequenced. eSpark's Teacher Dashboard enables teachers to monitor student progress and adjust students' individual plans/goals. eSpark's Data Science team uses data to measure the success of each CCSS domain, evaluating its impact on achievement growth and student engagement. This review process allows eSpark to target resources toward activities that demonstrate real and sustainable improvements in student learning. eSpark intelligently evolves, based on newly available content and analytics on what's actually working, to raise student achievement. To prevent student fatigue, NWEA mid-year assessment results will be

used to re-calibrate students' learning goals and plans, resulting in new, individualized quests based on demonstrated progress. Following the NWEA spring assessments, an additional re-calibration will occur and students will be given the opportunity to continue their learning quests over the summer. This will provide access to personalized summer school interventions and allow students to continue their academic growth throughout summer break. eSparks' innovative design provides access to a wealth of instructional resources that greatly exceeds our current capabilities. Not only does this project proposal provide greater access to resources in the classroom, it personalizes the resources for each individual student, maximizing the impact on student achievement.

12. 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. This project directly relates to increasing student achievement and increasing resources in the classroom. Utilizing eSpark and an individualized iPad, each K-8 student will work on personalized learning goals in Math and ELA based on the NWEA assessment data collected across three points in time (fall, winter, and spring). We have a wide range of student ability levels within each K-8 classroom. It is essential that we meet the needs of each student so they are fully prepared for college and career readiness. Foundational educational research indicates that learning occurs best when it is individualized and engaging (Bandura, Bloom, Dewey, Reis, Tomlinson, and Vygotsky). This project will enable us to utilize innovative approaches to education and technology implementation to meet the individual needs of our student and positively impact student achievement. eSpark personalizes the learning process for students in Math and ELA by supporting individual learning needs for students. This is accomplished through the calibration process which aligns each student's eSpark app to their individual needs, as evidenced by their assessment data. This re-calibration, coupled with the expertise of our teachers, will allow us to ensure that the individualized learning quests are appropriate and rigorous for each student. Student learning goals target their individual performance level as opposed to their grade level. Students receive personalized instruction within the learning quests at their comprehension level. Working independently and at their own pace, students will develop self-confidence and self-efficacy. Use of the Teacher Dashboard will allow teachers to pull out small groups for targeted instruction. Plan: Jan.-July: Tech. infrastructure is prepared. Jan.-Aug.: Teachers receive PD on personalizing educational curriculum through eSpark's individual apps and digital content on the CCSS in Math and ELA, formative assessments (NWEA) to guide instruction, and how to effectively incorporate iPads. Aug.: Students are administered the first NWEA assessment for the purpose of identifying individual strengths and weaknesses. Sept.: Assessment results are analyzed and personal learning goals are collaboratively created. iPads are calibrated to match each students' learning goals and personalized learning quests are created. Sept.-Dec.: Students engage in the individualized curriculum during learning centers, intervention/enrichment periods, and during their own free time. They interact with eSpark's learning platform data and conference on student growth and necessary modifications are made. Dec.: Students are administered the NWEA mid-point assessment for the purpose of identifying individual strengths and weaknesses, as well as to measure growth toward the students' individual learning goals. Teachers begin progress monitoring student growth and communicating results with students, parents, team meetings, and the project coordinator. Assessment results are analyzed and personal learning goals are collaboratively created. iPads are re-calibrated to match each students' new learning goals and personalized learning quests are created. Jan.-May: Students engage in the individualized curriculum during learning centers, intervention/enrichment periods, and during their own free time. They interact with eSpark's learning platform data and conference on student growth and necessary modifications are made. May: Students are administered the NWEA end-of-year assessment. Teachers continue progress monitoring student growth and communicating results with students, parents, team meetings, and the project coordinator. Assessment results are analyzed and personal learning goals are collaboratively created. iPads are re-calibrated to match each students' new learning goals and personalized learning quests are created. June: Students have the opportunity to continue their progress toward their individual goals by beginning their new learning quests.

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.

N/A

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

3,866,413.92 * 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, RttT money, local funding, foundation support, etc.), and 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).

The costs for this project proposal represent the total anticipated costs for implementation. To implement the instructional component of this proposal with fidelity, the following costs must be incurred:

eSpark (\$569,835.00) and Northwest Evaluation Association Math and Reading Assessments (MAP/MPG - \$68,175.00). From our research, these two instructional tools will allow us to best meet the individual needs of students and significantly impact student achievement in reading and math. The investment in these tools, as well as the necessary technology, will result in a greater share of resources being placed in the classroom and directly into the hands of our students. The required technology and support materials for implementation of this proposal are: iPads for every K-8 student and teacher (\$2,609,770.00), iPad Sync Stations (\$84,000.00), iPad cases (\$261,500.00). The purchase of the innovative iPad tablet technology will enable us to harness the individualization of the Common Core State Standards through the eSpark learning platform. The iPad Sync Stations are necessary for the re-calibration of students' learning quests, as well as for updating the Operating System and Apps on each student's iPad. By purchasing durable cases for each iPad, we will be able to protect the initial investment of the technology and allow students to utilize the iPads at home and school with less fear of damage to the devices. Because this is a large-scale shift in lesson delivery options, we know we will need to provide on-going professional development and technical support to our teachers, students, parents, and building principals. The hiring of a Technology Trainer (\$50,000.00) with expertise in iPads and Apple Operating Systems, will allow us to provide on-the-spot support to minimize loss of instructional time due to the new technology integration. The upgrades to our technology infrastructure are required for this project implementation. These costs include: Casper Mobile Device Management Software (\$27,150.00), Casper Setup/Training (\$6,000.00), Wireless Access Points (\$61,320.00), PoE Switches (\$46,384.00), Wireless Service for the 5 years (\$10,248.00), Upgrade to 1GB network connections for the 5 year contract (\$67,968.00), MVECA fee for 1GB for 5 year contract (\$4,062.92). Each of these upgrades is necessary for the dramatic increase in wireless technology devices resulting from each K-8 student actively engaging in iPad technology.

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.

568,922.92 * 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.

Implementation costs for this project proposal in years 2-5 will be limited to the annual costs for the resources allowing us to personalize the learning for each student and the associated technology costs. These are annual recurring costs with our project; no new costs are anticipated. These are: eSpark (\$295,767.00), Northwest Evaluation Association assessments (MAP/MPG - \$68,175.00), Technology Trainer (\$51,000), Casper Mobile Device Management Software (\$26,150.00), 1GB network connection (\$67,968.00), MVECA fee for 1GB connection (\$4,062.92). eSpark and the NWEA assessments have annual, recurring costs because they are year-to-year contracts that assess and calibrate each student's growth on an individual level. Implementation costs for the Technology Trainer (in years 2-5) will increase by \$1,000.00 each year, reflecting the annual changes in the cost of fringe benefits. The Casper Mobile Device Management Software enables us to sync and calibrate the student/teacher iPads on an on-going basis. The 1 GB network connection costs and associated MVECA fee will allow our students and teachers to fully utilize the iPad's technology capabilities in a wireless environment.

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

801,830.93 * Specific amount of expected savings (annual)

* Narrative explanation/rationale: Provide details on the anticipated savings (i.e. staff counts and salary/benefits, equipment to be purchased and cost, etc.)

During Year 1, we will have significant savings as a result of the implementation of this innovative project. These savings include: Intervention Tutors (\$307,125.00), reduction in K-8 materials adoption (\$200,000.00), reduction in replacements of K-8 classroom computers (\$129,645.00), network line and MVECA current costs (\$55,804.56), Math and ELA Common Core Support Materials (\$50,000.00), assessments (\$28,756.37), printing and consumable reductions (\$22,000.00), and Intervention Tutor materials and supplies (\$8,500.00). These reductions represent a systemic evaluation of K-8 district programs and services of students that have resulted in a decrease of expenditures. Improved assessment tools (MAP/MPG) will allow personalized instruction, remediation, and enrichment for our students. By using one assessment tool for the entire K-8 grade, we will have consistency in our assessment data articulation. The implementation of the personalized eSpark learning platform will allow us to eliminate the multiple K-8 Intervention Tutors and their corresponding support materials and supplies. With the implementation of 1-to-1 iPad technology, we will have a significant reduction in the number of classroom computers, allowing us to eliminate their replacements. The digitalization of the instructional process will allow for significant cost reductions in K-8 materials adoptions, such as textbooks, workbooks, and CCSS support materials. Additionally, we anticipate printing and consumable costs to show an increased reduction each year (see "Projected Costs & Reduction for 1-to-1 iPad K-8 Implementation" document), as our teachers and students become less dependent on hard copies of instructional resources.

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 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.

The year 1-5 total cost of program implementation for our district is \$6,148,105.60, including the amount requested from the grant. The total savings reductions as a result of the implementation of this project proposal in years 1-5 is \$4,033,154.65. In each of the five years of the grant's sustainability period, the expected annual savings are greater than the district's recurring costs for maintaining the project. We anticipate a net savings to our district of \$1,751,462.97 over years 1-5 of the grant's sustainability period, with the amount saved increasing each year. Year 1 savings is \$801,830.93 because the grant funding will pay for the costs associated with the initial implementation. The Year 2 savings is \$235,908.01; Year 3 savings is \$236,908.01; Year 4 savings is \$237,908.01; Year 5 savings is \$238,908.01. The specific expenditure reductions include the following: 3.010 (Personal Services: Salaries & Wages) and 3.020 (Fringe Benefits) from the eliminated K-8 Intervention Tutors; 3.030 (Purchased Services) from the reduction in prior wireless costs and test assessment costs; 3.040 (Supplies and Materials) from the reduction in testing, teaching supplies, and other printable consumables; and 3.050 (Capital Outlay) from the reduction in stationary technology hardware. The costs and savings information is available in the documents "Projected Costs & Reductions for 1-to-1 iPad K-8 Implementation" and "Financial Impact Table."

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 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.

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): 09/11/2013 - 10/25/2013

*** Narrative explanation**

During the proposal time period, our school district actively researched grant possibilities. We identified "Increasing Student Achievement" as our targeted goal and sought innovative methodologies that would allow us to dramatically increase student growth and achievement. "Utilization of a Greater Share of Resources in the Classroom" was identified as our second goal and we began focusing our research on innovative approaches to individualizing the learning opportunities for our students within these two areas. Through collaboration with teachers, parents, building principals, Central Office administrators, we identified 1-to-1 iPad technology, the personalization of data from NWEA assessments, and the individualized learning quests of eSpark's learning platform as our primary goal. During this process, we conducted extensive research on 1-to-1 technology, looked at the data from our NWEA pilot school, and researched districts throughout the US that are currently implementing the eSpark learning platform. After an on-site visit from eSpark personnel to gain a deeper understanding of the learning platform's components, we conducted a phone interview with a district in New York that was implementing eSpark with iPads at the middle school level and expanding the program to the elementary school level. We then conducted a site visit to a district in Michigan that has a large-scale implementation of iPads and eSpark at grades K-1. This research confirmed our desire to move forward with this project proposal with a K-8 implementation. Working collaboratively, we identified the necessary components to a successful full implementation of 1-to-1 iPad, NWEA, and eSpark to enable us to complete the grant proposal. Research, interview, and site visits were conducted from 9/11/2013 -10/14/2013. Grant writing occurred from 10/14/2013 - 10/25/2013. The largest barrier to this portion of the grant proposal was the timeline for grant proposal submissions. Additional time would have allowed for more extensive research on how districts are implementing 1-to-1 technology and eSpark, as well as how NWEA data is impacting student growth. We would have preferred to have been able to visit more schools. We mitigated this barrier by working closely with eSpark to identify the districts most similar to ours, enabling us to get the necessary information in an expedited manner.

Implement (MM/DD/YYYY): 12/17/2013 - 8/25/2015

*** Narrative explanation**

The implementation of this project includes 3 workstreams: Assessment, Technology Deployment, and Professional Development. Each will have three phases: Planning, Implementation, and Measuring Results. The key stakeholders for each workstream are: K-8 Teachers, Principals, Parents, Curriculum & Special Education Departments, and the Superintendent. For each workstream we have defined a set of milestones illustrated in the "Project Plan." Each milestone has a designated deadline to ensure a successful implementation. Professional Development (PD) Largest Barrier: Teachers may be hesitant of the new model. Communication Plan: We will survey stakeholders three times a year and after each PD session. Our Approach: We plan to invest in our teachers just as much as we do in our students by personalizing the PD sessions teachers will receive. We will conduct a pre-survey of our teachers and the content covered at the Kickoff PD session and subsequent Professional Learning Community sessions will be influenced by teacher feedback. Similar approaches will also be taken to support our K-8 parents and administrators. Our district leaders will visit classrooms monthly to observe the implementation. Measuring Success: Our goal with this PD plan is for the majority of stakeholders to agree by June that they are 1) comfortable in this new blended learning model and 2) teachers regularly meet with small groups of students. Technology Deployment Largest Barriers: Wireless strength, Mobile Device Management reliability, Software reliability Communication Plan: eSpark will support our technology deployment and will configure the iPads for each student. eSpark will schedule weekly meetings with our technology team until our technology deployment is completed in October and will train our team to support our teachers with the iPads. Our Approach: We anticipate unexpected hurdles as we deploy the technology. We will not allow those hurdles to impact our students' personalized learning time. In order to mitigate this, we will test our deployment approach in the months leading up to the deployment to ensure the wireless internet, Mobile Device Management solution, and software reliability will support the initiative. Measuring Success: We will measure app deployment accuracy (students have the learning content they need) and that the number of devices detected by the MDM each week matches our total student device count. Assessment Largest Barriers: Testing software stability and accuracy of test results Communication Plan: We will communicate the testing schedule to each Principal during the summer and they will attend the NWEA training and then facilitate testing sessions in the computer lab. We will send eSpark the NWEA Comprehensive Data File (CDF). Our Approach: We expect the most valuable result to be the detail in which we can identify each student's unique needs profile including strengths, areas for improvement and especially the degree to which they are excelling or struggling in each learning domain, compared to their peer group nationally. The primary challenge with NWEA is ensuring technology stability during the testing sessions. In order to mitigate those issues, we will send our principals to a training session offered by NWEA on administering the test. We will be conducting testing in waves across the district to prevent overwhelming the network infrastructure. Teachers will receive the NWEA results for each of their students so they can confirm that learning plans are at the student's performance level. Measuring Success: We expect our students to demonstrate unprecedented growth in the areas in which they focus on in eSpark. We will measure the impact of the personalized learning program eSpark prescribes for each student by compare Winter to Fall test results and Spring to Winter test results. We anticipate students to demonstrate 1.5x to 2X growth in their "eSpark focus domains."

Summative evaluation (MM/DD/YYYY): 8/25/2015 - 9/30/2015

*** Narrative explanation**

Our summative evaluation will occur at the end of the first year of implementation. This will allow us to see the initial impact of the grant on student achievement and to identify any necessary adjustments that should occur. We will begin by surveying our stakeholders in order to collect both qualitative and quantitative data about the implementation. The surveys will collect data on student engagement, teacher/parent/student comfort and aptitude with technology, and changes in instructional practices. We will then conduct a thorough analysis of all student achievement and Value-Added data. We will look at this data from the district, building, teacher, and student level in order to develop a full perspective of the impact on student achievement from the implementation of this project. We will further scrutinize the NWEA results to identify changes in the college and career readiness levels of our students. Summative evaluations will continue to occur on an annual basis through year 5 of the grant's sustainability period, to ensure we are continuing to meet the project goals.

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

Upon implementation of this project, significant changes in instructional design and practices will occur. While high-level primary instruction will continue to be delivered by our teachers, eSpark's individualized learning platform on the iPad will be integrated into instructional practices, becoming a method for personalizing primary grades' learning centers and individualizing our approach to intervention, remediation, and enrichment both in and outside the classroom walls. This innovative approach to technology integration will change instruction from being limited to primarily whole-group and small-group experiences, to highly emphasizing individualized learning based on frequent formative assessment and data for instructional design and lesson delivery. By implementing this new and innovative learning platform, we will be able to eliminate the need for part-time Intervention Tutors who focus on Math and ELA small-group instruction. When combining our teachers' expertise, the rich data from NWEA assessments, and eSpark's learning platform we will be able to create personal learning plans to meet the needs of each student in grades K-8. Additional reductions in K-8 core textbook/materials adoption and Math/ELA CCSS support resources/materials will occur as a result of the additional instructional resource of the eSpark learning platform and iPad technology. We will also be streamlining and reducing our existing assessment and remediation tools for K-8, eliminating the redundant and duplicative assessment tools currently being used within the district. The use of NWEA assessments will bring consistency and allow our teachers to gather extensive, detailed information about students' readiness levels, strengths, and weaknesses. Of the currently available assessments, we feel that NWEA is the most reliable, valid, and comprehensive as related to Math and ELA while also providing access to immediate results. To transition our district to 21st Century learning capabilities, technology infrastructure changes, including re-designing partnerships with our regional Information Technology Center (MVECA), network line connections. With the implementation of 1-to-1 iPad technology, we will eliminate the replacement of 4-6 classroom computers within individual K-8 classrooms. Additionally, because an increased amount of student learning will occur digitally, copying and printing needs will be significantly reduced.

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.

Although relatively new, tablet technology such as iPads, have been deployed at scale in school systems since 2010. In 2013, Apple reported that over 8 million iPads have been sold to education institutions, with 4.5 million iPads being sold to US educational institutions alone (Paczkowski). In partnership with schools, eSpark has been documented to significantly impact student achievement in Reading and Math. In Lopuch's (2013) study of eSpark implementations, it was found that most eSpark students dramatically exceeded academic expectations by the end of the academic school year. Using student growth metrics to calculate academic growth in Math and Reading, students achieved 65% more than the expected growth in the 1st semester of the school year. This research also found that students using eSpark had achieved 83% of their annual growth goal between September and January (Lopuch, 2013). Because eSpark is focused on meeting the needs of individual students, we are able to further students' long-term growth by re-calibrating their learning goals for the remainder of the school year. Research on the use of eSpark with the nationally-normed, non-profit NWEA assessments found that the average eSpark student increased his/her NWEA national ranking by 9 percentile points within one semester. These results are especially dramatic because students who use eSpark target curricular content that focuses on a personalized subset of the items tested in the NWEA assessments. The large effects on discipline-level achievement suggest that eSpark curricular content creates positive cross-curricular connections to other academic domains. Using a control group as a benchmark, research showed that 20% of the overall increase in percentile rankings for students could be attributed to a school effect and 80% of the increase was associated with the app-based curriculum of eSpark (Lopuch, 2013). While researching the implementation of eSpark learning platform, we dialoged with stakeholders in Mineola, New York and conducted a site visit to Utica, Michigan. The successes evidenced at both of these districts cemented our belief that this innovative project will support our students and lead to increased achievement. eSparks' innovative design provides teachers and students access to powerful learning tools, including more than 100,000 educational apps, electronic books, podcasts, and tablet-friendly websites on the iPad platform. This wealth of resources greatly exceeds our current capabilities for instructional resources. Not only does this project proposal provide greater access to resources in the classroom, it personalizes the resources for each individual student. "The future of education is individualized learning which ensures that the talents of each student are maximized and that individual challenges are overcome. While our teachers remain at the heart of this goal, we believe technology can be the catalyst. The right performance infrastructure allows us to transform data into information and information into action" (Ankenman, 2008). We will be making over \$500,000.00 in reductions in our five-year forecast upon the implementation of this project proposal. Due to the changes in the instructional, remedial, intervention, and enrichment practices, we will be able to initiate the following significant reductions from the five-year forecast, which are further identified in our supporting financial document titled "Projected Costs & Reductions for 1-to-1 iPad K-8 Implementation": K-8 core textbook/materials adoption, network line and Information Technology Center, Intervention Tutors, Intervention Tutors' materials and supplies, previously utilized K-8 diagnostic assessments, Math/ELA CCSS support resources/materials, gifted identification testing, copying

and printing supplies, and K-8 individual classroom computers (4-6 machines) replacements.

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

Yes

No

22. If so, how?

Our model for implementation can be fully replicated by districts. We will provide access to our working documents and grant proposal research and data, enabling any building or district to apply our processes to meet the needs of their own student population. Full access to a site visit with our administration, teachers, and parents would also be made available to those interested in replicating our project. In order to replicate our process, a school or district would need to research our proposal and identify their own technology capabilities, assessment resources, stakeholder interest, financial sustainability, and district-level commitment to the initiative. Our project implementation timeline would provide districts with the necessary framework to adapt the process to the scale of any building or district. At this time, we do not intend to increase the scope and scale of this project because there is no trend data available to support implementation beyond K-8 integration.

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

We expect significant, quantifiable growth in individual student achievement in Math and ELA by meeting the needs of each K-8 student. This will be evidenced by the NWEA mid and end of year assessments, eSpark's assessment tools (quizzes, tests, performance assessments, goal leveling), ODE Value Added results, and student, parent, and teacher surveys. Through this project, we will measure the impact of the personalized eSpark learning platform (learning quests) using multiple methods throughout the school year. NWEA results will be analyzed twice a year for each student by comparing the Winter to Fall test results and the Spring to Winter test results. We anticipate students to demonstrate 150-200% growth in their eSpark focus CCSS domains as compared to the other areas of the grade level curriculum. Ohio Value-Added results will be analyzed yearly for NCE and percentile gains. Assessment tools within the eSpark learning platform will be utilized for determining students' engagement and achievement growth. Additionally, Student, Parent, and Teacher surveys will provide qualitative supporting evidence of the lasting impact on student achievement and the effect of increased resources to the classroom. These surveys will also provide quantifiable evidence of lasting changes in instructional design and delivery. We will continue the educational and financial investment of this project beyond the 5-year sustainability period because research states that meeting the needs of individual student achievement is the best instructional methodology. Foundational educational research clearly identifies individualizing the instructional process for students leads to increased student achievement, motivation, and engagement (Bandura, Bloom, Dewey, Reis, Tomlinson, and Vygotsky). The project framework identified within this grant proposal will allow us to continue implementing this educational initiative with fidelity. We also understand that as new educational delivery methodologies emerge through technology evolution, we will need to adapt our framework to capitalize on new opportunities.

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.

We expect to demonstrate statistically significant growth in individual student achievement in Math and Reading. Our students will complete math and reading NWEA tests in the fall, winter, and spring of each year. We prioritize this measure of effectiveness because it is an independent, nonprofit assessment tool that is backed by high quality research. Research on eSpark has shown statistically significant achievement growth using NWEA data. Among students who used eSpark and completed NWEA tests in the 2012-2013 academic year, the average growth across 47 Common Core domains and grade levels was 173% of NWEA expectations across. In other words, eSpark students nearly doubled expected growth in their target Common Core domains. If the NWEA expectation for typical growth for a given set of eSpark students was 5 RIT points, those students typically grew 8.65 RIT points. These estimates are based off of a sample of over 5,000 students. We believe we can recreate if not exceed these results with our high-fidelity implementation of the program. We will judge the success of our program if we can also demonstrate statistically significant increases above and beyond NWEA expectations for typical growth. We also recognize the importance of measuring benefits beyond standardized test scores. NWEA results suggest that students who score at or above the 70th percentile are associated with a high probability of entrance to college. Another marker of long term success of this project will be whether we can significantly increase the share of students who meet this predictor of college readiness. We will also measure success with ODE Value Added results. Due to the individualized nature of the eSpark learning platform, we expect to see measurable growth in all five quintiles of our Value-Added data in grades 4-8 in both Math and Reading. Additionally, we hope to observe other key program outcomes which may or may not be easily measured. (1) Increased student engagement - bolstered by the multi-modal environment the iPad content and eSpark will provide (2) Increased teacher comfort/aptitude with technology - we hope to observe this develop over the course of the school year (3) Evolution of instructional practice - as teachers gain familiarity with these tools they are better positioned to take advantage of blended learning models not possible using traditional resources.

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.

The NWEA MAP reports data at a level in a way that makes program evaluation easy and accessible. Score reports contain three critical components. First, NWEA reports RIT scores at the domain level. Instead of reporting one math score, each student report will show separate scores for Operations and Algebraic Thinking, Number Sense, Measurement & Data, and Geometry. Second, NWEA reports also include expectations for typical growth based on a national sample of millions of students. Expectations for typical growth are a function of students' fall baseline scores, so these expectations are personalized at the student level. These estimates are based on a large, nationally normed sample. Using that data, we can estimate each student's growth relative to her personalized expectations in domains she targeted with eSpark. This analytical strategy has two primary benefits: (1) it controls for unobserved selection because the impact is estimated across domain-specific scores for each student, and (2) a proper counterfactual is estimated from the NWEA nationally normed sample. Consider the following example. A 5th grade student, Mackenzie, uses eSpark to improve her algebra skills. The data from her fall and spring NWEA exams reveal that she exceeded expectations in algebra by 40% and she exceeded expectations in geometry by only 10%. Since she only used eSpark to target algebra, not geometry, the difference in her growth scores serves as an estimate of the eSpark effect. Two-sample t-tests will be used to evaluate whether mean differences in scores are statistically significant. As we apply this to all of our students, we will also use Kolmogorov-Smirnov tests to identify whether the entire distribution of students differs between their eSpark focus areas and all other Common Core domain areas. These program evaluation studies will be completed with each cycle of longitudinal data. Since score reports from the winter and spring testing cycle are typically delivered in February and June, respectively, program staff will quantitatively evaluate the success of the program at least twice per year. If NWEA results do not show statistically significant improvements at these points, student diagnoses will be recalibrated and curriculums will be adjusted to better fit student needs. Similarly, we will evaluate whether there is a statistically significant increase in the trend of students scoring at or above the 70th percentile on NWEA exams, our proxy benchmark for college readiness. This comparison will involve a simple t-test in differences in the share of students meeting this threshold in the fall, winter, and spring of each year. To measure success using the Ohio Value-Added data, we will look at both the NCE points for the cohort groups utilizing the eSpark learning platform, as well as the student-level Value-Added Data in NCE and percentile points. By design, Ohio's Value-Added metric assesses the impact schools have on students' academic performances. By using this metric, we will be able to assess the impact of the eSpark learning platform on student achievement. In addition to student achievement, further program outcomes mentioned in question 24 will also be measured. (1) Increased student engagement - will be gauged by teacher feedback surveys deployed during initial professional development sessions and during end of year surveys. Our eSpark partner will provide data on student engagement with apps. (2) Increased teacher comfort/aptitude with technology - will also be measured through teacher survey. (3) Evolution of instructional practice - will be measured through a combination of teacher survey and classroom observation by eSpark and district staff.

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 conduct evaluation of the plan 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 William McGlothlin, Ed.D. Superintendent Beaver Creek City Schools October 25, 2013 | Accept Ernie Strawser Interim Treasurer Beaver Creek City Schools October 25, 2013 | Accept Susan Hayward, Ph.D. Director of Curriculum and Instruction Beaver Creek City Schools October 25, 2013