### Budget

Beavercreek City (047241) - Greene County - 2015 - Straight A Fund - Rev 0 - Straight A Fund - Application Number (31)

**U.S.A.S. Fund #:**

*Plus/Minus Sheet (opens new window)*

<table>
<thead>
<tr>
<th>Purpose Code</th>
<th>Object Code</th>
<th>Salaries 100</th>
<th>Retirement Fringe Benefits 200</th>
<th>Purchased Services 400</th>
<th>Supplies 500</th>
<th>Capital Outlay 600</th>
<th>Other 800</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instruction</td>
<td></td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>488,000.00</td>
<td>0.00</td>
<td>488,000.00</td>
</tr>
<tr>
<td>Support Services</td>
<td></td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Governance/Admin</td>
<td></td>
<td>0.00</td>
<td>0.00</td>
<td>10,000.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>10,000.00</td>
</tr>
<tr>
<td>Prof Development</td>
<td></td>
<td>0.00</td>
<td>0.00</td>
<td>200,000.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>200,000.00</td>
</tr>
<tr>
<td>Family/Community</td>
<td></td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Safety</td>
<td></td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Facilities</td>
<td></td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>300,000.00</td>
<td>0.00</td>
<td>300,000.00</td>
</tr>
<tr>
<td>Transportation</td>
<td></td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>0.00</td>
<td>0.00</td>
<td>210,000.00</td>
<td>0.00</td>
<td>788,000.00</td>
<td>0.00</td>
<td>998,000.00</td>
</tr>
</tbody>
</table>

**Adjusted Allocation** 0.00

**Remaining** -998,000.00
### A) APPLICANT INFORMATION - General Information

**1. Project Title:**
Raising Student Achievement, Engagement, and Intrinsic Motivation Through State-of-the-Art High School Scientific Research Laboratories

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

| Designed with input from educational leaders at some of the country's most notable universities and public and private schools across the world, this grant will fundamentally re-envision the traditional high school science experience and uniquely address the needs of 21st century students. The creation of five state-of-the-art scientific research laboratories will offer rigorous, in-depth scientific studies coupled with experiential inquiry explorations, where students will combine theory and practice in differentiated scientific research opportunities, applying 21st century learning skills, including content area expertise, critical and creative thinking, collaboration, problem solving, research, scientific writing, and mathematical applications. Through use of the scientific research laboratories, students will hone science skills, increase conceptual science knowledge, improve cognitive abilities, deepen their understanding of the nature of science, and develop scientific behaviors. |

*This is an ultra-concise description of the overall project. It should not include anything other than a brief description of the project and the goals it hopes to achieve.*

**2385 3. Total Students Impacted:**

*This is the number of students that will be directly impacted by implementation of the project. This does not include students that may be impacted if the project is replicated or scaled up in the future.*

**4. Please indicate which of the following grade levels will be impacted:**

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

**5. Lead applicant primary contact:**

- **First Name, last Name of contact for lead applicant**
  Susan Hayward, Ph.D.
- **Organizational name of lead applicant**
  Beavercreek City Schools
- **Address of lead applicant**
  3040 Kemp Road; Beavercreek, Ohio 45432
- **Phone Number of lead applicant**
  937-458-2417
- **Email Address of lead applicant**
  Susan.Hayward@Beavercreek.k12.oh.us

**6. Are you submitting your application as a consortium?** - Select one checkbox below

- Yes
- No

If you are applying as consortium, please list all consortium members by name on the "Consortium Member" page by clicking on the link below. If an educational service center is applying as the lead applicant for a consortium, the first consortium member entered must be a client district of the educational service center.

*Add Consortium Members*
7. Are you partnering with anyone to plan, implement, or evaluate your project? - Select one checkbox below

- Yes
- No

If you are partnering with anyone, please list all partners by name on the "Partnering Member" page by clicking on the link below.

Add Partnering Members

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

8. Describe the innovative project: - Provide the following information

The response should provide a clear and concise description of the project and its major components. Later questions will address specific outcomes and the measures of success.

The current state or problem to be solved; and

Science education, of which laboratory experiences are a fundamental and unique part, is a critical component of education for the 21st century. In the US, many people lack the basic understanding of the science required to make informed decisions about the many scientific issues affecting their lives (National Academy of Science, 2007). Policy makers, scientists, business leaders, and educators agree that scientific literacy is essential for all to live effectively in an increasingly complex, technological society and that science education is critical to meeting the nation's needs for a skilled workforce in an era of growing global competition in research, development, and technological innovation. Results from the NAEP, TIMSS, and PISA tests all indicate no improvement in the science achievement of high school students in the US over the past three decades. Because the high school science curriculum is designed to prepare students for both employment and post-secondary study, high school science education reforms have the potential to advance the dual goals of broad scientific literacy and preparation of the future technical and scientific workforce. Increasing scientific understanding will require major reforms in science education, including reforms in the laboratories that constitute a significant portion of the high school science curriculum. If students are to develop a deep understanding of what scientists do and how they reason, they must be more than merely scientifically literate; they must participate in meaningful scientific laboratory research experiences. Like most high schools, we lack the specialized equipment and space necessary to allow rigorous scientific study to occur. While reading about science, using computer simulations, and observing teacher demonstrations may be valuable, they are not a substitute for laboratory research investigations designed and conducted by students (NRC, 2006).

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

Drawing upon the trend data of the post-secondary pursuits of our students, the needs identified in March 2014 by our community stakeholders, and in response to emerging fields of scientific study, this project will create five state-of-the-art research labs. Students must have opportunities to design investigations, engage in scientific reasoning, manipulate equipment, record data, analyze results, and discuss findings (NSTA, 2007). These skills are critical parts of inquiry and will be the foundation of our new labs. Designed to provide students scientific research opportunities far beyond the capabilities of our existing classroom labs, the labs will enable us to raise the level of scientific achievement of our students, reduce our Five-Year Forecast, and move a greater share of resources into the hands of our students. In the Astronomy & Astrophysics Research Lab students will integrate aspects of astronomy including planetary geology, deep space image processing, and analyses of astronomical databases and telescopic observations. Student research may focus on light curves of variable stars, exo-solar planets, spectroscopic analyses, supernovae, galaxies, quasars, asteroids, comets, and solar-terrestrial effects. The Biotechnology & Life Sciences Lab will provide a research-based program where students may research bacterial transformation, protein purification, antigen-antibody interaction, and DNA sequencing, including assay techniques, RT-PCR, Western blotting, electrophoresis, and mammalian tissue culture. The Chemical Analysis & Nanochemistry Lab will integrate many aspects of Chemistry, including inorganic and organic synthesis and characterization, chemical nanotechnology, and the utilization of specialized instrumentation. In the Neuroscience Lab, students may conduct Neurorobotics and Electrophysiological experiments, including the investigation of nerve activity regeneration analysis of the neural basis of behavior, neural control mechanisms, memory mechanisms, and computational analysis of EEG data. In the Engineering & Design of Automation & Robotic Systems Lab, students will apply engineering concepts to the design and production of automated systems and investigate the building blocks of robotic systems including sensors, analyzers, actuators, and drivers. Students will utilize the specialized equipment to integrate automation and robotic systems, electronics, computer programming, manufacturing and materials processing, while investigating the social, cultural, and economic impacts of automating a variety of systems. The creation of the labs will offer rigorous, in-depth scientific studies and experiential inquiry explorations, where students combine theory and practice in differentiated scientific research opportunities, applying 21st century learning skills, including content area expertise, critical and creative thinking, collaboration, problem solving, research, scientific writing, and mathematical applications. Each of the labs will be designed to meet the scientific learning goals attributed with lab experiences. Students will hone science skills (inquiry, materials manipulation, investigative thinking, organization, and communication), increase conceptual science knowledge (developing and testing hypotheses, theoretical models, and taxonomic categories), improve cognitive abilities (critical thinking, problem solving, and higher order thinking skills), deepen their understanding of the nature of science (scientific enterprise, the multiplicity of scientific methodologies, and the interrelationships between the fields of science), and develop scientific behaviors (curiosity, interest, risk taking, objectivity, precision, confidence, perseverance, satisfaction, responsibility, consensus, and collaboration). Confirmed business partnerships include: Miami Valley Hospital, WSU, LexisNexis, and Wright-Patt Credit Union. WPAFB will provide job shadowing, internship and mentor opportunities.

9. Which of the stated Straight A Fund goals does the proposal aim to achieve? - (Check all that apply)

Applicants should select any and all goals the proposal aims to achieve. The description of how the goals will be met should provide the reader with a clear understanding of what the project will look like when implemented, with a clear connection between the components of the project and the stated goals of the fund. If partnerships/consortia are part of the project, this section should describe briefly how the various entities will work together in the project. More detailed descriptions of the roles and activities will be addressed in Question 16.
10. Which of the following best describes the proposed project? - (Select one)

- New - never before implemented
- Existing: Never implemented in your community school or school district but proven successful in other educational environments
- Mixed Concept: Incorporates new and existing elements
- Established: Elevating or expanding an effective program that is already implemented in your district, school or consortia partnership

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

11. Financial Documentation: - All applicants must enter or upload the following supporting information. The information in these documents must correspond to your responses in questions 11-14.

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

Enter Budget

* If applicable, upload the Consortium Budget Worksheet (by clicking the link below)

* Upload the Financial Impact Table (by clicking the link below)

* Upload the Supplemental Financial Reporting Metrics (by clicking the link below)

Upload Documents

For applicants without an ODE Report Card for 2012-2013, provide a brief narrative explanation of the impact of your grant project on per pupil expenditures or why this metric does not apply to your grant project instead of uploading the Supplemental Financial Reporting Metric.
12. What is the total cost for implementing the innovative project?

Responses should provide rationale and evidence for each of the budget items and associated costs outlined in the project budget. In no case should the total projected expenses in the budget narrative exceed the total project costs in the budget grid.

998,000.00 State the total project cost.

* Provide a brief narrative explanation of the overall budget.

To implement this project with fidelity, we must invest in the design and re-construction of existing learning spaces into the five scientific research laboratories ($300,000.00). Professional development for our teachers ($90,000.00) and contracted Research Laboratory Trainers ($100,000.00) will ensure that our science teaching staff is able to fully utilize the advance scientific equipment and facilitate meaningful laboratory experiences for our students. Contracted services with a partner agency, Wright State University ($20,000.00), will allow for non-biased evaluation of the success from implementation. Each of the five scientific research laboratories will contain unique equipment, specialized to the field of scientific study, resulting in a wide-variance of equipment costs. The investment in these specialized materials will result in a greater share of resources being placed in the research laboratories and directly into the hands of our students. The Astronomy & Astrophysics Research Laboratory ($50,000.00) would provide the necessary equipment for specialized elective courses including astrophysics. Specialized equipment may include: a Radio Jove system, SID (Sudden Ionospheric Disturbance) Monitor, telescopes, and Solar telescopes. The Biotechnology & Life Science Research Laboratory ($65,000.00) would provide the necessary equipment for specialized biotechnology elective courses. Specialized equipment may include: Horizontal and Vertical Electrophoresis Apparatus, ESCO Class 2 Type A2 Biosafety Cabinet, Olympus Fluorescent Microscope, Eppendorf Automatic Micropipettes, Total Lab Imaging Software, NB Scientific Shaker Incubator, NB Scientific CO2 Incubators, Bio-Rad Thermal Cycler, a greenhouse, and Digital Gel Imaging System. The Chemical Analysis & NanoChemistry Research Laboratory ($240,000.00) would provide the necessary equipment for specialized elective courses including organic and inorganic chemistry. Specialized equipment may include: FT-IR (Fourier Transform Infrared Spectroscopy), Potentiostat, Fluorescence, UV/Vis and visible spectrometers, Mel-Temp, Refractometry, Ultrasonic probes, Digital Microscopes, Raman Spectroscopy, and Gas Chromatogram / Mass Spectrometer. The Neuroscience Research Laboratory ($50,000.00) would provide the necessary equipment for specialized elective courses including NeuroRobotics, ElectroPhysiology, and NeuroInformatics. Specialized equipment may include: EEG cap and amplifier, ElectroPhysiological amplifier, suction electrodes, surgical dissection tools, and high-powered dissecting stereoscopes. The Engineering & design of Automation & Robotic Systems Research Laboratory ($83,000.00) would be utilized for specialized elective courses related to engineering, robotics, and automation technology, which are areas of community interest and is directly related to one of the top three career interests of our graduates. Specialized equipment may include: Universal Laser Systems, Laser Cutter, PCB Design Software, VEX Robotics Systems, Autodesk Inventor CAD Software, and Arduino Microcontrollers. Please see the supporting financial documents for additional information.

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

Sustainability costs include any ongoing spending related to the grant project after June 30th of your grant year. Examples of sustainability costs include annual professional development, equipment maintenance, and software license agreements. To every extent possible, rationale for the specific amounts given should be outlined. The costs outlined in the narrative section should be consistent and verified by the financial documentation submitted and explained in the Financial Impact Table. If the project does not have sustainability costs, applicants should explain why.

[Yes - If yes, provide a narrative explanation of your sustainability costs as detailed in the Financial Impact Table in the box below.]

Implementation costs for this project proposal during the Five-Year Sustainability Period will be limited to the on-going costs associated with the specialized equipment within the research laboratories. We expect that during the first three years of the sustainability period, additional materials and supplies, not anticipated within the scope of the grant, will be identified as necessary purchases. Anticipating that the majority of these unanticipated needs will arise during the first year of sustainability, we have allotted for $21,000.00 in ancillary equipment and materials needs for the five laboratories. During the second year of sustainability, we have budgeted for $8,000.00 in unanticipated materials and equipment purchases, across the five laboratories, recognizing that most needs will have been identified by this point in the implementation process. $2,000.00 in supplemental equipment and materials has been budgeted for the third year of sustainability period, when it is expected that few additional purchases will be necessary. Throughout all five years of the sustainability period, we anticipate the need for repairs, maintenance, re-calibration, and possible replacement for some of the specialized equipment. We have budgeted $15,000.00 across the five research laboratories for annual maintenance, repairs, and replacement costs of equipment and materials. Total recurring costs for the duration of the five year sustainability period are $106,000.00. This is more than off-set by our total savings to the Five-Year Forecast for the same period of time, which is $845,000.00, resulting in a new savings to the district, over the grant year and five year sustainability period, of $739,000.00. Please see the supporting financial documents for additional information.

[No - If no, please explain why (i.e. maintenance plan included in purchase price of equipment) in the box below.]
14. Will there be any expected savings as a result of implementing the project?

- Yes
- No

Applicants with sustainability costs in question 13 or seeking to achieve significant advancement in spending reductions in the five-year forecast must address this response. Expected savings should match the information provided by the applicant in the Financial Impact Table. All spending reductions must be verifiable, permanent, and credible. Applicants may only respond "No" if the project will not incur any increased costs as a result of maintaining and sustaining the project after June 30th of your grant year. The Governing Board will use the cost savings as a tiebreaker between applications with similar scores during its final selection process. Cost savings will be calculated as the amount of expected cost savings less sustainability costs relative to the project budget.

169,000.00 If yes, specify the amount of annual expected savings. If no, enter 0.

If yes, provide details on the expected savings (i.e. staff counts and salary/benefits, equipment to be purchased and cost, etc.). If no, please explain.

Due to permanent reductions in the Five-Year Forecast, we will have significant savings through the implementation of this innovative project. A $40,000.00 permanent annual reduction in the K-12 textbook adoption budget during the initial grant year and each of the sustainability years will occur as a result of careful budgeting and the increased digitalization of curricular support materials. This will provide a total savings of $200,000.00 across the five-year sustainability period. To support this project, we will no longer be replacing the student computers within individual classrooms across the district, providing an annual savings of $69,000.00, resulting in a total savings, over the duration of the sustainability period, of $345,000.00. New devices at the K-8 level have replaced the computers, rendering them obsolete. Newer technologies throughout the high school campus have made classroom student computers no longer necessary. Through increased efficiencies, the district has identified a Support Personnel position to permanently eliminate. The annual savings of $60,000 in salary and benefits will provide a total savings of $300,000.00 over the grant's sustainability period. The above reductions represent an annual savings of $169,000.00 to the five year forecast and a total savings of $845,000.00 across the five year sustainability period. The total cost for year one implementation of the grant will be $998,000.00, which equals the amount requested within the grant proposal. During the five-year sustainability period, the recurring costs associated with this project ($106,000.00) will be more than offset by the reductions to the Five-Year Forecast ($845,000.00), enabling the district to realize a net savings of $739,000.00 through grant implementation. These savings are all further described in the supporting financial documents.

15. Provide a brief explanation of how the project is self-sustaining.

All Straight A Fund grant projects must be expenditure neutral. For applications with increased ongoing spending as documented in question 11-14, this spending must be offset by expected savings or reallocation of existing resources. These spending reductions must be verifiable, permanent, and credible. This information must match the information provided in your Financial Impact Table. Projected additional income may not be used to offset increased ongoing spending because additional income is not allowed by statute. Please consider inflationary costs like salaries and maintenance fees when considering whether increased ongoing spending has been offset for at least five years after June 30th of your grant year. For applications without increased ongoing spending as documented in questions 11-14, please demonstrate how you can sustain the project without incurring any increased ongoing costs.

For educational service centers and county boards of developmental disabilities that are members of a consortium, any increased ongoing spending at the educational service center or county board of developmental disabilities may also be offset with the verifiable, permanent, and credible spending reductions of other members of the consortium. This increased ongoing spending must be less than or equal to the sum of the spending reductions for the entire consortium.

Explain in detail how this project will sustain itself for at least five years after June 30th of your grant year.

We will have significant savings as a result of the implementation of this innovative project due to permanent reductions in the Five-Year Forecast. The total cost for year one implementation of the grant will be $998,000.00, which equals the amount requested within the grant proposal. During the five-year sustainability period, the recurring costs associated with this project ($106,000.00) will be more than offset by the reductions to the Five-Year Forecast ($845,000.00), enabling the district to realize a net savings of $739,000.00 through grant implementation. The total cost of program implementation for our district during the initial grant year and the five years of the sustainability period is $1,104,000.00, including the $998,000.00 requested from the grant. The total savings as a result of reductions implemented to support this project proposal are $845,000.00. 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 $739,000.00 over the course of the grant's five-year sustainability period, with the net amount saved increasing during the first four years of the sustainability period. The grant funding will pay for all costs associated with the initial implementation. The Sustainability Year 1 net savings are $133,000.00; Sustainability Year 2 savings is $146,000.00; Sustainability Year 3 savings is $152,000.00; Sustainability Year 4 savings is $154,000.00; Sustainability Year 5 savings is $154,000.00. The specific expenditure reductions include the following: 3.01 (Salaries and Wages) and 3.02 (Fringe Benefits) from the elimination of one Support Personnel employee, 3.040 (Supplies and Materials) from the reduction in K-12 textbook adoption cycle materials, and 3.050 (Capital Outlay) from the reduction in stationary technology hardware. By making such significant savings reductions to our Five-Year Forecast, we will be able sustain this grant beyond the required five-year sustainability period. The costs and savings information is available in the supporting financial documents.

D) IMPLEMENTATION - Timeline, scope of work and contingency planning

16. Please provide a brief description of the team or individuals responsible for the implementation of this project, including other consortium members and/or partners.
17. Planning - Activities prior to the grant implementation

* Date Range 10/2013 - 10/2014

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

Our stakeholders clearly identified a need for our students to perform authentic scientific research, develop critical and creative thinking skills, and learn to collaborate and communicate findings at a March 2014 Community Forum. We realized that we lack the necessary facilities, equipment, and specialized training to prepare our students for their choice of post-secondary pursuits by providing a rigorous, scientific research experience. Through collaboration with our stakeholders, we identified the creation of five scientific research laboratories, unique from our existing science classroom laboratories, as a method to meet the three identified grant goals. We then researched the impact of rigorous, inquiry-based laboratory experiences on student achievement, including conducting physical and virtual site visits. The creation of these laboratories will deepen our students’ science knowledge and also increase their 21st century skills and college and career readiness levels. From October 2013 to October 2014, we will complete the Design and Construction planning process. During this time we will consult with the district architectural firm on space and design. We will hold a community meeting for input on the design plans and then the community design team will create and finalize the design plan and establish a communication plan to share the results with all stakeholders. From February to September 2014, we will research the specialized equipment and resources in committee, department, and community meetings. We will finalize the plans to purchase the specialized equipment and will then create a communication plan to share the selected resources with all stakeholders. From July to August 2014 we will create PD plans for training teachers, staff, students, and community members on how to utilize the components of the Academic Research Library. A communication plan will be created to ensure all stakeholders are aware of the training opportunities.

* Anticipated barriers to successful completion of the planning phase

The largest barrier to the planning process of this grant will be our ability to complete all tasks within the defined time period. Because of the extensive nature of this grant, including the design and construction of the Scientific Research Laboratories and the professional development associated with the success of the grant, there is a limited amount of time that can be devoted to planning before implementation must begin. We will mitigate this barrier by working closely with our teachers, contracted experts, and community partners to ensure that the planning process is thorough and efficient.

18. Implementation - Process to achieve project goals

* Date Range 02/2014 - 05/2015

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

The grant implementation has 3 workstreams: design and construction; acquisition of specialized equipment and resources; and PD for students, teachers, and community members. Each will have three phases: Planning, Implementation, and Measuring Results. The key stakeholders for each workstream are: 9-12 students, teachers, Principals, parents, community members, Curriculum & Special Education Departments, and the Superintendent. For each workstream we have milestones with a designated deadline to ensure successful implementation. This is represented graphically in the "Implementation Plan" document. From October 2014 to May of 2015, we will complete the remodeling project to create the five Scientific Research Laboratories. This will culminate in guided community tours. From October 2014 to February 2015 we will create the course of study documents for new science electives and make necessary revisions for existing science courses. In February, we will purchase the specialized equipment and resources, making them available to teachers and students as soon as possible. Beginning in September 2014, we will provide PD to teachers and administrators in committee, staff, department, and curriculum meetings, in consultation with our contracted experts. During the second semester of the 2014-2015 school year, students will begin to receive training on the new equipment. Community members will have special workshops on the new science laboratories in May and June 2015.

* Anticipated barriers to successful completion of the implementation phase.

Phase 1 Largest Barrier: Completion of the construction on time with minimal disruptions to students’ educational experiences during construction. Communication Plan: Stakeholder meetings regarding the design plans prior to approval and implementation. Our Approach: We will complete construction at an accelerated pace with minimal disruptions to the academic experiences of current students. This may include 2nd shift construction. Measuring Success: Completion by May, 2015. Phase 2 Largest Barriers: Identifying specialized equipment for research laboratories; creating new science courses for full utilization of research laboratories. Communication Plan: Research and planning within monthly committee and department meetings; formal communication with students and parents prior to course scheduling. Our Approach: Budgeting for additional purchases during the first 3 years of the Sustainability Period. Measuring Success: Comprehensiveness of collection of specialized equipment and resources. After full implementation, we will measure the utilization of the five scientific research laboratories as well as the use of specialized equipment within each laboratory to determine if our students and teachers are utilizing the materials and equipment identified as necessary to support this initiative. Phase 3 Largest Barriers: Teachers may be hesitant of the new model; teachers may be resistant to having expert trainers provide support. Communication Plan: Survey stakeholders at the beginning and
19. Summative Evaluation - Plans to analyze the results of the project

**Date Range**: 06/2014 - 08/2015

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

Our summative evaluation will occur at the end of the first year of the Sustainability Period. 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 contract with Wright State University’s Multi-Disciplinary Evaluation Research Team to survey our stakeholders in order to collect both qualitative and quantitative data about the implementation. The evaluation will draw on a wide variety of data for both formative and summative reports. Quantitative data will be used in conjunction with questionnaire and observation data, as well as with qualitative data to ensure a thorough and balanced evaluation. The surveys will collect data on student achievement, student engagement, student/teacher comfort and aptitude with specialized equipment, utilization of scientific research laboratories and specialized equipment, and changes in instructional practices. We will then conduct a thorough analysis of all student achievement data, including End-of-Course Exams, SLO assessments, classroom assessments, and ACT Science scores. 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. Further evidence of increases in student achievement will be evident in students’ writing and communication abilities as they create formal lab reports to accompany their research and present their findings to peers and professional groups. 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.

**Anticipated barriers to successful completion of the summative evaluation phase.**

The largest anticipated barrier for the summative evaluation of this project is the time-intensive nature of developing, collecting, and analyzing the qualitative and quantitative data. We will mitigate this barrier by working closely with our partner organization, Wright State University, throughout the sustainability period.

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

The response should illustrate the critical instructional and/or organizational changes that will result from implementation of the grant and the impact of these changes. These changes can include permanent changes to current district processes, new processes that will be incorporated or the removal of redundant or duplicative processes. The response may also outline the expected change in behaviors of individuals (changes to classroom practice, collaboration across district boundaries, changes to a typical work day for specific staff members, etc.). The expected changes should be realistic and significant in moving the institution forward.

Please enter your response below:

Upon implementation of this project, significant changes in instructional design and practices will occur. While high-level primary science instruction will continue to be delivered by our science teachers within core academic courses, we anticipate significant changes to the laboratory experiences of all of our students, as well as to the content and course offerings available to our students in the form of science electives. By differentiating the utilization methods of the new scientific research laboratories, all students will benefit from the advanced technology and instruction. This innovative approach to science instruction will change instruction from being limited to traditional "cook-book" laboratory activities into authentic, research-based learning experiences in which students design and conduct research that contributes to the body of knowledge within the various fields of science. The shift toward research-based courses will challenge our teachers to change their instructional methodologies to be differentiated and more student-centered than they have been able to facilitate within our existing classroom laboratories. Additionally, we anticipate an increased level of collegiality and collaboration to occur between members of our science teaching staff and community/business leaders as they work together to design, develop, and implement the new scientific research laboratories. The utilization of contracted trainers to help our teachers acquire the necessary foundational knowledge will serve as a bridge for other outside content experts to enhance the educational experience we are able to provide our students. It is our expectation that these changes will transition beyond the science department and will become the norm for all of our instructional teams. Students will experience a significant increase in the scientific research, reading, and writing expectations within all science courses. They will utilize critical thinking, creative problem solving, collaboration, and effective communication skills in order to develop, implement, analyze, and report the findings of their scientific research. As a result of the high expectations for these scientific research laboratories, we will be supporting our students by scaffolding instructional processes and providing additional support outside of the school day, as necessary.

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

The responses in this section are focused on the ability to design a method for evaluating the project's capacity for long-term sustainable results. Therefore, the questions focus on the method of defining the problem(s) the project hopes to solve and the measures that will determine if the problem(s) have been solved.

21. Describe the rationale, research or past success that supports the innovative project and its impact on student achievement, spending reduction in the five-year fiscal forecast or utilization of a greater share of resources in the classroom.

The response should provide a concise explanation of items which provide rationale that will support the probability of successfully achieving the goals of the project. Answers may differ based on the various levels of development that are possible. If the proposal is for a new, never before implemented project, the response should provide logical, coherent explanations of the anticipated results based on some past experience or rationale. For projects that have been implemented on a smaller scale or successfully in other organizations, the response should provide the quantifiable results of the other projects. If available, relevant research in support of this particular proposal should also be included.

Please enter your response below:

A large body of research supports the need for students to engage in authentic laboratory experiences. The laboratory has been given a
central and distinctive role in science education and science educators agree that rich benefits in learning accrue from using laboratory activities (Hofstein & Lunetta, 2003). It is imperative for schools to have the latest and high quality science lab supplies because students must look beyond the books and conventional classroom teaching in order to understand scientific concepts. Effective science teaching and learning involves seeing, handling, and manipulating real objects and materials. The knowledge that students attain in classrooms would be ineffectual unless they actually observe the process and understand the relationship between action and reaction (Science First, 2014). Russell & French (2001) found that inquiry-based, research laboratories increase the achievement for students because of the opportunities to handle data and manipulate experiments are greater than within traditional laboratories. Similarly, Hussain & Akhtar (2013) found that hands-on science activities significantly affect students' science achievement. A vast number of studies have shown a direct correlation between improved laboratory experiences and increased student achievement (Aydede & Matyav, 2009; Kanter & Konstantopoulou, 2010; Odom, Stoddard, & LaNassa, 2007; Ozlem & Ali, 2011; Pell, Iqbal, & Sohail, 2010; Pine, et al, 2006; Randler & Hulde, 2007; Sabine & Franz, 2010; Yadav & Mishra, 2013; and Young & Lee, 2005). Yadav & Mishra (2013) also found a statistically significant increase in the development of scientific process skills, achievement, and practical application of scientific skills when learning occurred within the laboratory environment. A site visit to one of the top STEM high schools in the nation clearly supported the link between student achievement and authentic, scientific research laboratory experiences. By allowing students to develop deeper understandings within more specialized fields of scientific study, their overall science achievement increases.

22. Describe the overall plan to evaluate the impact of the concept, strategy or approaches used in the project.

This plan should include the methodology for measuring all of the project outcomes. Applicants should make sure to outline quantitative approaches to assess progress and measure the overall impact of the project proposal. The response should provide a clear outline of the methods, process, timelines and data requirements for the final analysis of the project's progress, success or failure. The applicant should provide information on how the lessons learned from the project can and will be shared with other education providers in Ohio.

* Include the name and contact information of the person who will be responsible for conducting the evaluation and whether this will be an internal or external evaluation.

External Lead Evaluator: Dr. Carl Brun Wright State University 225 Millett Hall 3640 Colonel Glenn Highway Dayton, Ohio 45435-0001 (937) 775-2382 Carl.brun@wright.edu Internal Lead Evaluator: Dr. Susan Hayward Beavercreek City Schools 3040 Kemp Road Beavercreek, Ohio 45431 (937) 458-2417 Susan.Hayward@Beavercreek.k12.oh.us

* Include the method by which progress toward short- and long-term objectives will be measured. (This section should include the types of data to be collected, the formative outputs and outcomes and the systems in place to track the project's progress).

We will partner with WSU evaluation group to conduct the quantitative and qualitative evaluation benchmark research. Quantitative data on student achievement in science will be collected from standardized tests (OGT and ACT science). This data will be compared to data from recent cohorts that did not participate in the Scientific Research Lab. Two-sample t-tests will be used to evaluate whether mean differences in scores are statistically significant. The evaluators will use a quasi-experimental design. A regression model will be developed to predict ACT and GPA scores after testing for collinearity. The outcomes will be compared using a paired sample t-test to determine if the outcomes from the Scientific Research Labs differed significantly from those of traditional science education. We will expand the quasi-experimental design to include comparisons with other school districts that use a more traditional educational model. Propensity scores would be developed for each student from the comparative sample and each student involved in the Scientific Research Labs. Test scores would be compared using a paired sample t-test to determine if the outcomes differed significantly. Student engagement will be measured using self-reported surveys adapted from IPI. Internal consistency of these surveys will be tested using Cronbach's alpha for reliability. Surveys will be compared to previous years' surveys using Kolmogorov-Smirnov tests. Data will be compared to the ACT scores using partial correlation coefficients to determine if there is a statistically significant relationship. Student motivation will be measured using the Academic Motivation Scale, which has been shown to be time- and gender-invariant with strong reliability and internal consistency. Surveys will be compared to previous years' surveys to determine if the labs are increasing students' motivation. Kolmogorov-Smirnov tests will be used to ascertain if these differences are statistically significant.

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

If analysis of our evaluative data reveals ineffectiveness within our implementation process, we will modify our implementation methodologies. This may include necessary changes in the professional development opportunities provided for teachers and staff in order to ensure that student achievement is being attained. For example, further, purposeful professional development on how to utilize the specialized equipment may be necessary. A modification in the amount of assistance received from the Research Laboratories Consultants may also be increased if evaluative data is not showing the expected gains in student achievement. We do not anticipate an inability to achieve the reduction in the five year forecast because we have a district commitment to implement the identified reductions with fidelity. By implementing the grant as outlined in this application, we are assured to have an increased share of resources available to our students.

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

The response should provide specific quantifiable measures of the grant outcomes and how the project will lead to successful attainment of the project goals. Applicants should describe how the program or project will continue after the grant period has expired.

Please enter your response below.

We expect significant, quantifiable growth in the individual science achievement of our 9-12 students by improving their laboratory experiences. This will be evidenced by the End-of-Course Exams, SLO assessments, classroom assessments, and ACT Science scores. 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. Additional changes are expected within our students' ability to achieve science learning goals attributed with high-quality laboratory experiences. These skills include: enhanced mastery of scientific content; the development of scientific reasoning; an understanding of the complexity and ambiguity of empirical work, practical science skills, understanding the nature of science, cultivating an interest in learning science, and developing collaborative abilities. These science learning goals will be measured through classroom observations and survey instruments. Through the use of the scientific research laboratories, we will help all high school students achieve these science learning goals, which is critical to improving the national scientific literacy and preparing the next generation of scientists and...
24. Describe the specific benchmarks, by goal as answered in question 9, which the project aims to achieve in five years. Include any other anticipated outcomes of the project that you hope to achieve that may not be easily benchmarked.

The applicant should provide details on the quantifiable measures of short- and long-term objectives that will be tracked and the source of benchmark comparative data points. Responses should include specified measurement periods and preliminary success points that will be used to validate successful implementation of the project. If a similar project has been successfully implemented in other districts or schools, identification of these comparable benchmarks should be included.

* Student Achievement
We expect significant, quantifiable growth in the individual science achievement of our students by improving their laboratory experiences. This will be evidenced by the End-of-Course Exams, SLO assessments, classroom assessments, and ACT Science scores. 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. Additional changes are expected within our students’ ability to achieve science learning goals attributed with high-quality laboratory experiences. These skills include: enhanced mastery of scientific content; the development of scientific reasoning; an understanding of the complexity and ambiguity of empirical work, practical science skills, understanding the nature of science, cultivating an interest in learning science, and developing collaborative abilities. These science learning goals will be measured through classroom observations and survey instruments. We will judge the success of our program if we can demonstrate significant increased achievement, above and beyond expectations for typical growth.

* Spending Reduction in the five-year fiscal forecast
We expect annual spending reductions in the Five-Year Forecast of $169,000.00. We will evaluate our progress at two points in time: January and June. We will track this through a district-created Straight A Grant Financial Score Card. On the Score Card, we will have a list of all reduction items. We will use the Score Card to verify that all identified reductions for the grant are on target for reduction. We will involve a committee comprised of representative key stakeholders who will evaluate the short and long-term benchmarks, ensuring compliance with the Straight A Grant.

* Utilization of a greater share of resources in the classroom
We expect a greater share of resources to be in the hands of our students through the implementation of this grant. We will evaluate our progress toward this goal at two points in time: January and June. We will track this through collaboration between the High School Building Leadership Team, the Curriculum Department, and the Treasurer's Department. As a team, they will evaluate the level of increased efficiency of our spending to ensure we are providing our classrooms with a greater share of resources and are in compliance with the Straight A Grant.

* Implementation of a shared services delivery model

<table>
<thead>
<tr>
<th>* Other Anticipated Outcomes</th>
</tr>
</thead>
</table>

We expect to observe other key program outcomes, which may or may not be easily measured. (1) Increased student engagement bolstered by the inquiry-based learning environment the scientific research laboratories will provide. (2) Increased teacher and student comfort/aptitude with technology - we hope to observe this develop over the course of the first Sustainability Year. (3) Evolution of instructional practice as teachers gain familiarity with the specialized equipment and are better positioned to take advantage of the research laboratory learning models not possible using traditional classroom laboratories.

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

- Yes
- No

If the applicant selects "Yes" to the first part of the question, the response should provide an explanation of the time and effort it would take to implement the project in another district, as well as any plans to share lessons learned with other districts. To every extent possible, applicants should outline how this project can become part of a model so that other districts across the state can take advantage of the learnings from the proposed innovative project. If there is a plan to increase the scale and scope of the project within the district or consortium, it should be included here.

* Explain your response
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 scientific research laboratory capabilities, 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 beyond grades 9-12.

By virtue of applying for the Straight A Fund, all applicants agree to participate in the overall evaluation of the Straight A Fund for the duration of the evaluation time frame. The Governing Board of the Straight A Fund reserves the right to conduct an evaluation of the project and request additional information in the form of data, surveys, interviews, focus groups and other related data on behalf of the General Assembly, Governor and other interested parties for an overall evaluation of the Straight A Fund.
PROGRAM ASSURANCES: I agree, on behalf of this applicant, and any or all identified consortium members or partners, that all supporting documents contain information approved by a relevant executive board or its equivalent and to abide by all assurances outlined in the Straight A Assurances (available in the document library section of the CCIP).

I accept William McGlothlin, Ed.D. Superintendent, Beavercreek City Schools April 15, 2014
I accept Ernie Strawser Interim Treasurer, Beavercreek City Schools April 15, 2014
I accept Susan Hayward, Ph.D. Director of Curriculum, Beavercreek City Schools April 15, 2014
## Consortium Contacts

No consortium contacts added yet. Please add a new consortium contact using the form below.
<table>
<thead>
<tr>
<th>First Name</th>
<th>Last Name</th>
<th>Telephone Number</th>
<th>Email Address</th>
<th>Organization Name</th>
<th>IRN</th>
<th>Address</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carl</td>
<td>Brun</td>
<td>937-775-2868</td>
<td><a href="mailto:Carl.Brun@wright.edu">Carl.Brun@wright.edu</a></td>
<td>Wright State University</td>
<td>063123</td>
<td>3640 Colonel Glenn Hwy, Dayton, OH, 45435-0001</td>
</tr>
<tr>
<td>David</td>
<td>Hopkins, Ph.D.</td>
<td>937-775-2312</td>
<td><a href="mailto:David.Hopkins@wright.edu">David.Hopkins@wright.edu</a></td>
<td>Wright State University</td>
<td>063123</td>
<td>3640 Colonel Glenn Hwy, Dayton, OH, 45435-0001</td>
</tr>
<tr>
<td>Shandra</td>
<td>McKinney</td>
<td>937-912-7380</td>
<td><a href="mailto:smckinney@wpcu.coop">smckinney@wpcu.coop</a></td>
<td>Wright-Patt Credit Union</td>
<td></td>
<td>2455 Executive Park Blvd., , Fairborn, OH, 45324</td>
</tr>
<tr>
<td>Colonel</td>
<td>Carolyn</td>
<td>937-257-8801</td>
<td><a href="mailto:Carolyn.Patrick@us.af.mil">Carolyn.Patrick@us.af.mil</a></td>
<td>Wright Patterson Air Force Base</td>
<td></td>
<td>88 ABW/CV. 5135 Pearson Rd., Bldg 10, Fairborn, OH, 45433-5346</td>
</tr>
<tr>
<td>Gary</td>
<td>Blake</td>
<td>937-499-5704</td>
<td><a href="mailto:GJBlake@PremierHealthPartners.org">GJBlake@PremierHealthPartners.org</a></td>
<td>Premier Health Partners (Miami Valley Hospital)</td>
<td></td>
<td>110 N. Main Street, , Dayton, OH, 45402</td>
</tr>
<tr>
<td>Suzanne</td>
<td>Meek</td>
<td>888-285-3947</td>
<td><a href="mailto:Suzanne.Meek@LexisNexis.com">Suzanne.Meek@LexisNexis.com</a></td>
<td>LexisNexis</td>
<td></td>
<td>9443 Springboro Pike, , Dayton, OH, 45342</td>
</tr>
</tbody>
</table>
## Implementation Team

<table>
<thead>
<tr>
<th>First Name</th>
<th>Last Name</th>
<th>Title</th>
<th>Responsibilities</th>
<th>Qualifications</th>
<th>Prior Relevant Experience</th>
<th>Delete Contact</th>
</tr>
</thead>
<tbody>
<tr>
<td>William</td>
<td>McGlothlin</td>
<td>Superintendent</td>
<td>Dr. McGlothlin's responsibility is to oversee the overall project. He will do this through weekly meetings with the Curriculum Director. Adjustments will be made to the implementation process and procedures, as needed.</td>
<td>Dr. McGlothlin has been in education for over 30 years. He has been a classroom teacher, assistant principal, Principal, Title I Coordinator, Special Education Director, Associate Superintendent, and Superintendent.</td>
<td>Dr. McGlothlin has managed federal and state grants at several school districts. He has implemented the following programs during his time as an administrator: received an after-school reading program grant (ILS); received an emergency repair grant (USV); and received a safety grant (ILS).</td>
<td></td>
</tr>
<tr>
<td>Susan</td>
<td>Hayward</td>
<td>Director of Curriculum</td>
<td>Dr. Hayward is the lead applicant and project manager for this grant. She will be responsible for managing the implementation. She will meet weekly with the Superintendent and all key members of the implementation team.</td>
<td>Dr. Hayward has been in education for over 25 years. She has been a classroom teacher, assistant principal, Curriculum Supervisor, university Professor, Title I Coordinator, Title II Coordinator, Race to the Top Manager, and Curriculum Director.</td>
<td>Dr. Hayward has managed a multi-million dollar state grant, several federal grants, and private grants. She has implemented the following programs during her time as an administrator: Ohio Schools to Watch, Response to Intervention K-12, OTES Implementation PreK12, Student Growth Measures Development PreK-12, Race to the Top, Middle School Model. In addition, Dr. Hayward has served as an ETech reviewer for Ohio's Online State Professional Development Plan, eRead Ohio facilitator, and expert reader for the Ohio Department of Education Reading First grants.</td>
<td></td>
</tr>
<tr>
<td>Elizabeth</td>
<td>Sizemore</td>
<td>Curriculum Supervisor</td>
<td>Mrs. Sizemore's responsibility is to assist in the project management. She will meet weekly with all key members of the implementation team, will serve as an administrative liaison to a building-level implementation team, and will provide frequent updates on the implementation process to the Project Manager.</td>
<td>Mrs. Sizemore has been in education for over 14 years. She has been a classroom teacher, a Gifted Intervention Specialist, a Gifted Coordinator, and a Curriculum Supervisor.</td>
<td>Mrs. Sizemore has supported the implementation of a multi-million dollar state grant and has managed a private grant. She has implemented the following programs during her time as an educator: Credit Flexibility Manager, Director of Summer Enrichment Programs, K-12 programs, OTES evaluator, Student Growth Measures Development Leader, and Ohio Science 7-12 Facilitator.</td>
<td></td>
</tr>
<tr>
<td>Marian</td>
<td>West</td>
<td>High School Principal</td>
<td>Mrs. West's responsibility is to oversee the day-to-day implementation of the grant project at the building level. She will meet weekly with the Project Management Team to address all components of the implementation process.</td>
<td>Mrs. West has been in education for over 30 years. She has been a classroom teacher, Guidance Counselor, and the building principal for over 10 years.</td>
<td>Mrs. West has implemented programs/or served in the capacity of the following during her time as an administrator: Credit Flexibility ODE design team member, building level Leadership Team Director, OTES implementation and training, Response to Intervention, student assistance team, Crisis Team, Co-Chair and Presenter for High School Curriculum Mapping, Co-Chair and Presenter for High School Assessment for Learning initiative, and University College</td>
<td></td>
</tr>
<tr>
<td>Name</td>
<td>Title</td>
<td>Responsibility</td>
<td>Experience</td>
<td>Programs/Served</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-----------</td>
<td>------------------</td>
<td>------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>------------</td>
<td>---------------------------------------------------------------------------------------------------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rodger</td>
<td>Assistant High School Principal</td>
<td>Mr. Gilbert's responsibility is to assist with the day-to-day implementation of the grant project at the building level. He will meet weekly with the Building Level Implementation Team to address all needs of the grant.</td>
<td>over 30 years</td>
<td>classroom teacher and an assistant principal. Mr. Gilbert has implemented programs/or served in the capacity of the following during his time as an administrator: district and building OTES committee, building level Leadership Team, LPDC, district Safety committee, Co-Chair and Presenter for High School Curriculum Mapping, and Co-Chair and Presenter for High School Assessment for Learning initiative.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dale</td>
<td>Assistant High School Principal</td>
<td>Mr. Wren's responsibility is to assist with the day-to-day implementation of the grant project at the building level. He will meet weekly with the Building Level Implementation Team to address all needs of the grant.</td>
<td>over 10 years</td>
<td>classroom teacher and an assistant principal. Mr. Wren has implemented programs/or served in the capacity of the following during his time as an administrator: building level Leadership Team, Curriculum Instruction Council member, Athletic Council, Supplemental Contract Committee, Special Education Department Chair, and Facilities and Planning Athletic Council leader.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Garey</td>
<td>Assistant High School Principal</td>
<td>Mr. Martin's responsibility is to assist with the day-to-day implementation of the grant project at the building level. He will meet weekly with the Building Level Implementation Team to address all needs of the grant.</td>
<td>over 20 years</td>
<td>classroom teacher and an assistant principal. Mr. Martin has implemented programs/or served in the capacity of the following during his time as an administrator: OTES Building Committee, building level Leadership Team, district and building anti-bullying committee, Student Handbook committee, district and building Best Practices committee, Student Assistance Team, Chair of the Building Safety Committee, and is Ventures certified.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jason</td>
<td>Assistant High School Principal</td>
<td>Mr. Whitaker's responsibility is to assist with the day-to-day implementation of the grant project at the building level. He will meet weekly with the Building Level Implementation Team to address all needs of the grant.</td>
<td>over 10 years</td>
<td>classroom teacher and an assistant principal. Mr. Whitaker has implemented programs/or served in the capacity of the following during his time as an administrator: OTES Building Committee, building level Leadership Team, building anti-bullying committee, building Best Practices committee, Student Assistance Team, Chair of the Building Safety Committee, and is Ventures certified.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>