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<th>Object Code</th>
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<th>Retirement Fringe Benefits 200</th>
<th>Purchased Services 400</th>
<th>Supplies 500</th>
<th>Capital Outlay 600</th>
<th>Other 800</th>
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<td>189,120.00</td>
</tr>
</tbody>
</table>

Adjusted Allocation | 0.00
Remaining | -189,120.00
A) APPLICANT INFORMATION - General Information

1. Project Title:
21st Century Systemic, Sustainable Energy/Environmental Blended Learning Project

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

This initiative will require teacher creation of blended learning and project-based units involving student research surrounding renewable energy initiatives as well as their environmental impact - solar, wind turbine, geothermal, biofuel, emerging lighting, insulation, and various heating sources would be the focus. The various economic and environmental impacts as well as business practice of fracking might also be an appropriate topic and may include a business proposal in the vein of entrepreneurship focus by student projects. The projects will require purchase and use of technology, grades 5-12 department teacher collaboration and professional development, project-based learning, research, LDC (Literacy Design Collaborative), MDC (Math Design Collaborative), student team-work, presentations, and reporting out of these to the media, area businesses, and on our website.

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

3. Total Students Impacted:

1020

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:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Selection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-K Special Education</td>
<td></td>
</tr>
<tr>
<td>1</td>
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<tr>
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<td>☑</td>
</tr>
<tr>
<td>12</td>
<td></td>
</tr>
</tbody>
</table>

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

First Name, last Name of contact for lead applicant
Jeffrey Layton

Organizational name of lead applicant
Northwestern Schools

Address of lead applicant
7571 North Elyria Rd.

Phone Number of lead applicant
419-846-3151

Email Address of lead applicant
nrws_layton@tccsa.net

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
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

Need to overcome resistance to changing current educational structures and paradigms. Limited use of blended learning and internet curriculum and research content. Limited teacher collaboration involving practical project-based instruction. Apprehension of teacher in evolving to blended learning. Need to improve rigor through fostering student collaboration. Limited school-business partnerships. Poor alignment of school training to build capacity for area business needs and growth. Need workforce development. Inadequate educational programs and entrepreneurship for sustainable energy and related major emerging industries. The project includes teacher professional development, student collaboration and project creation, development of applied renewable energy curriculum, entrepreneurship, and environmental impact as well as economic studies. Essentially, teachers will develop blended, project-based units over a semester through utilization of LDC (Learning Design Collaborative) and MDC (Math Design Collaborative) framework. Teachers will receive professional development support for blended learning, digital resources, LDC, MDC, Renewable Energy curriculum, experiences, and training. They will then develop the units and meet throughout the year as Gr. 5-12 departments. Students will work collaboratively in groups in researching a particular form of renewable energy (and possibly additional topic options such as fracking), develop a business start-up proposal, study the cost structure, profit margins, viability, potential in meeting future energy needs, as well environmental and societal impacts of utilizing and expanding this energy. This will culminate in student presentations to be held in the HS auditorium with area Chamber of Commerce, businesses, college, and other organizational partners Wayne County Economic Development Council. These presentations and projects will be videotaped and posted on the district webpage as well as recorded in a portfolio.

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

Northwestern will develop teachers, making them more comfortable as facilitators. Also, we will remove inhibitions and resistance to rigorous, project-based, blended-learning. We will do this through professional development provided by OSU, HSTW and through experiential field trips. Northwestern will develop rigor through new renewable energy, entrepreneurship, and environmental programs. We will educate students developing 21st century college and career skills through project-based instruction. Students will learn valuable critical thinking, research, collaboration, multi-media, project, and presentation skills. Through our strengthened partnerships Northwestern will bridge the gap between regional business needs and educational training. We will work with industry in order to align and develop the capacity for future career and growth needs through ongoing communication, developing core career skills early, and preparing our students for career opportunities immediately after high school, technical training, as well as college careers.

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.

- Student achievement (Describe the specific changes in student achievement you anticipate as a result of this innovation (include grade levels, content areas as appropriate) in the box below.)

Goals will be met through: increased lexicon reading level overall vocabulary improvement improved research, presentation, project creation, and critical thinking skills improved collaborative teamwork and problem-solving skills improved technology skills improving the focus of career interests increased assessment scores improved student engagement and motivation long-term improvement in graduation rate Grades 5-12 All core content areas - English, Math, Science, Social Studies Also these specialized courses: Technology, Agricultural Science, Environmental Studies, Sociology, Financial Literacy, Economics, Entrepreneurship/Business Partnership information: HSTW/SREB LDC and MDC week long training (8 teachers), with teacher stipends, OSU OBIC (Ohio Bioproducts Innovation Center) Bioenergy and Bioproducts Education Aug 4-8 (2 expert teachers) Programs. August-June, 2015 OSU OBIC training program to begins & is intense early, with supports through spring. September-November - active professional development with LDC, MDC "resident experts" exemplifying train the trainer model where they spread LDC and MDC, with ongoing HSTW support & professional development activities. Exploratory and research topics with students begin with ATI, OSU OBIC, Quasar, and other business partners. Also, active professional development provided by HSTW and held on site for blended learning and web based curricular resources. By Thanksgiving lessons and units developed by teachers. Lesson proposals approved by 5-12 departments of teachers for teachers, by teachers. By Christmas vacation all proposals approved. Lessons take place from January-May 2005 with ongoing content department meetings via early release days, student feedback, business liaison comments, administrator observations. Student work and projects will be scored via a rubric in an ongoing manner and summarized each 6 weeks. Project presentations will be held mid-May, 2015. Culminating projects and presentations scored via a final rubric. Teacher feedback developed, solicited through HSTW in late May. Student feedback developed and solicited through HSTW in late May. Additional student outcomes will be assessed via state test data, STAR assessments, individual teacher SLOs, Aspire.
Spending reductions in the five-year fiscal forecast or positive performance on other approved fiscal measures (Describe the specific reductions you anticipate in terms of dollars and spending categories over a five-year period in the box below or the positive performance you will achieve on other approved fiscal measures. Other approved fiscal measures include a reduction in spending over a five-year period in the operating budget approved by your organization's executive board or its equivalent.)

| Utilization of a greater share of resources in the classroom (Describe specific resources (Personnel, Time, Course offerings, etc.) that will be enhanced in the classroom as a result of this innovation in the box below.) |
| Implementing a shared services delivery model (Describe how your shared services delivery model will demonstrate increased efficiency and effectiveness, long-term sustainability, and scalability in the box below.) |

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.

The project budget is entered directly in CCIP. For consortia, this project budget must reflect the information provided by the applicant in the Consortium Budget Worksheet. Directions for the Financial Impact Table are located on the first tab. Applicants must submit one Financial Impact Table with each application. For consortium applications, each consortium member must add an additional tab on the Financial Impact Tables. Partners are not required to submit a Financial Impact Table.

Applicants with an "Ohio School Report Card" for the 2012-2013 school year must upload the Supplemental Financial Reporting Metrics to provide additional information about cost savings and sustainability. Directions for the Supplemental Financial Reporting Metrics are located on the first tab of the document. If your organization does not have an "Ohio School Report Card" for the 2012-2013 school year, please provide an explanation in the text box about how your grant project will impact expenditures per pupil or why expenditure per pupil data does not apply to your grant project.

Educational service center, county boards of developmental disabilities, and institutions of higher education seeking to achieve positive performance on other approved fiscal measures should submit the budget information approved by an executive board or its equivalent on the appropriate tabs of the Financial Impact Table. Educational service centers should use the "ESC**tab and county boards of developmental disabilities and institutions of
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.

189,120.00 State the total project cost.

* Provide a brief narrative explanation of the overall budget.

$6,500 July HSTW SREB conference and LDC, MDC preconference in Nashville and associated costs $10,000 Ongoing PD - contract with OSU OBIC $16,320 Substitute teachers for release time for department teacher collaboration $118,800 Chrome Books (330 Chrome Books - brings us to a 67% ratio of device to student - BYOD initiative will bring us to 1 to 1!!!) $4,400 Stipends for professional development in the summer months $4,600 Student field trips and research transportation $8,000 Supplies and materials needs at $1,000 per grade level (roughly $9 per student) $16,000 HSTW Contract for ongoing LDC, MDC, Blended Learning, internet content professional development $4,500 HSTW will conduct a comprehensive, impartial external summative evaluation with an external team in May, 2015, which includes classroom observations, teacher surveys, student survey, and administrator, teacher, and parent meetings

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.

No - If no, please explain why (i.e. maintenance plan included in purchase price of equipment) in the box below.

Maintenance plan included in Chromebook cost. Licensing fees will not increase. In fact, these should lessen as a result of our complete planned migration from Microsoft Office to Google Docs over the next two years. Also, we have found that Chromebooks are very durable and not prone to damage. Business 10 year commitment of support of Liaison promotes sustainability at no additional cost to us.

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.

30,730.00 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

Spending reductions will be realized through reduced remediation costs and reduced textbook purchases. By teaching students through project-based instruction research strongly correlates to increased student engagement as well as increased learning, self-worth, and student achievement. As a result, reduced remediation will result in saved dollars for the district. We budget over $60,000 annually for student remediation and additional supports locally beyond Title I and IDEA programs and fund spending. By increasing teacher use of blended learning and online resources we are providing the professional development and capacity for the transition from being textbook bound to being textbook free. Our ultimate goal is to be textbook free. We will no longer purchase individual student textbooks, for which we have traditionally budgeted and spent more than $60,000 annually. We would continue purchasing some resources for teachers. However, these would be limited to $10,000 annually in total, as we believe that our teachers are and should have their skills honed at being the curriculum experts in their content areas. As a result, we feel that we train them to find digital resources, then they develop their units and lessons based upon the content as aligned in the Common Core Curriculum content standards. We also believe that teacher efficacy will improve as a result. We are currently at a 1 to 3 student to Chromebook/laptop ratio in grades 6-12. We feel we need a 2 to 3 ratio in order to see a 1 to 1 student to device ratio on a daily basis. This is because we believe we can attain the other 1/3 of our students having devices through our BYOD program by the start of next school year. This would render textbooks obsolete. While we would spend a total of $54,270 annually at current prices for Chrome Book replacements, we are currently spending $35,000 annually on current device replacement cycles. We would be saving $30,730 when compared to what we currently spend annually in textbooks and devices. There will be an additional cost not associated with the grant. Barry Romich of the Romich Foundation has led the Wayne County business commitment of a paid position as a liaison between schools and business. This commitment begins in 2014-2015 school year and is for the next 10 years. This is anticipated to be at a cost of over $40,000 per year. This liaison is charged with establishing and expanding STEM programs throughout the Tri-County area of Holmes, Ashland, and Wayne Counties. Also, this person will act as an ongoing support for the support of STEM programs.

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

Higher education should use the "non-traditional" tab.
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 believe in human capital. By providing the LDC and MDC training and developing our teachers through providing the opportunity to collaborate throughout this blended learning project-based unit we expect that teachers will be excited, energized, and this type of instruction will become institutionalized. Also, having end products and the experience facilitating energized students we will encourage and support future blended learning opportunities. In the future we see rigid classroom structures being broken down and instruction becoming more fluid with schedules, various groups of students, online instruction and lecture delivery, with smaller focus groups. We are planning these seeds now.

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.

This response should include a list of qualifications for the applicant and others associated with the grant. If the application is for a consortium or a partnership, the lead should provide information on its ability to manage the grant in an effective and efficient manner. Include the partner/consortium members’ qualifications, skills and experience with innovative project implementation and projects of similar scope.

Enter Implementation Team information by clicking the link below:

Add Implementation Team

For Questions 17-19 please describe each phase of your project, including its timeline, scope of work, and anticipated barriers to success.

A complete response to these questions will demonstrate specific awareness of the context in which the project will be implemented, the major barriers that need to be overcome and the time it will take to implement the project with fidelity. A strong plan for implementing, communicating and coordinating the project should be outlined, including coordination and communication in and amongst members of the consortium or partnership (if applicable). It is recognized that specific action steps may not be included, but the outline of the major implementation steps should demonstrate a thoughtful plan for achieving the goals of the project. The time line should reflect significant and important milestones in an appropriate and reasonable time frame.

17. Planning - Activities prior to the grant implementation

* Date Range July 1, 2014 through May 31, 2015

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

**Timeline: July-August: summer professional development - incl. HSTW/SREB LDC and MDC week long training (8 teachers), with teacher stipends, OSU OBIC (Ohio Bioproducts Innovation Center) Bioenergy and Bioproducts Education Aug 4-8 (2 expert teachers) Programs. August-June, 2015 OSU OBIC training program to begins & is intense early, with supports through spring. September-November - active professional development with LDC, MDC "resident experts" exemplifying train the trainer model where they spread LDC and MDC, with ongoing HSTW support & professional development activities. Exploratory and research topics with students begin with ATI, OSU OBIC, Quasar, and other business partners. Also, active professional development provided by HSTW and held on site for blended learning and web based curricular resources. By Thanksgiving lessons and units developed by teachers. Lesson proposals approved by 5-12 departments of teachers for teachers, by teachers. By Christmas vacation all proposals approved. Lessons take place from January-May 2005 with ongoing content department meetings via early release days, student feedback, business liaison comments, administrator observations. Student work and projects will be scored via a rubric in an ongoing manner and summarized each 6 weeks. Project presentations will be held mid-May, 2015. Culminating projects and presentations scored via a final rubric. Teacher feedback developed, solicited through HSTW in late May. Student feedback developed and solicited through HSTW in late May. Additional student outcomes will be assessed via state test data, STAR assessments, individual teacher SLOs, Aspire.

* Anticipated barriers to successful completion of the planning phase

Barriers are likely to be teacher resistance to new teaching model, blended learning, resistance to shifting toward role of facilitator through LDC, MDC, and blended learning approaches. Insecurities will be overcome through ongoing, timely supports, long-term trusting relationships between administrators & teachers, with HSTW, and OSU. We have a great working relationship with our local Teacher Association and through stability of our administrative team and board of education (all administrators have been together for a minimum of 8 years with the exception of 1 year for our Asst. principal) we have established reputations of integrity and trust.

18. Implementation - Process to achieve project goals

* Date Range July 1, 2014-May 31, 2015
**List of scope of work (activities and/or events, including deliverables, project milestones, interim measurements, communication, and coordination).**

Timeline: July-August: summer professional development - incl. HSTW/SREB LDC and MDC week long training (8 teachers), with teacher stipends, OSU OBIC (Ohio Bioproducts Innovation Center) Bioenergy and Bioproducts Education Aug 4-8 (2 expert teachers) Programs.

August-June, 2015 OSU OBIC training program to begins & is intense early, with supports through spring. September-November - active professional development with LDC, MDC "resident experts" exemplifying train the trainer model where they spread LDC and MDC, with ongoing HSTW support & professional development activities. Exploratory and research topics with students begin with ATI, OSU OBIC, Quasar, and other business partners. Also, active professional development provided by HSTW and held on site for blended learning and web based curricular resources. By Thanksgiving lessons and units developed by teachers. Lesson proposals approved by 5-12 departments of teachers for teachers, by teachers. By Christmas vacation all proposals approved. Lessons take place from January-May 2005 with ongoing content department meetings via early release days, student feedback, business liaison comments, administrator observations. Student work and projects will be scored via a rubric in an ongoing manner and summarized each 6 weeks. Project presentations will be held mid-May, 2015. Culminating projects and presentations scored via a final rubric. Teacher feedback developed, solicited through HSTW in late May. Student feedback developed and solicited through HSTW in late May. Additional student outcomes will be assessed via state test data, STAR assessments, individual teacher SLOs, Aspire.

**Anticipated barriers to successful completion of the implementation phase.**

Barriers are likely to be teacher resistance to new teaching model, blended learning, resistance to shifting toward role of facilitator through LDC, MDC, and blended learning approaches. Insecurities will be overcome through ongoing, timely supports, long-term trusting relationships between administrators & teachers, with HSTW, and OSU. We have a great working relationship with our local Teacher Association and through stability of our administrative team and board of education (all administrators have been together for a minimum of 8 years with the exception of 1 year for our Asst. principal) we have established reputations of integrity and trust.

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

* Date Range: July 1, 2014-May 31, 2015

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

Timeline: July-August: summer professional development - incl. HSTW/SREB LDC and MDC week long training (8 teachers), with teacher stipends, OSU OBIC (Ohio Bioproducts Innovation Center) Bioenergy and Bioproducts Education Aug 4-8 (2 expert teachers) Programs.

August-June, 2015 OSU OBIC training program to begins & is intense early, with supports through spring. September-November - active professional development with LDC, MDC "resident experts" exemplifying train the trainer model where they spread LDC and MDC, with ongoing HSTW support & professional development activities. Exploratory and research topics with students begin with ATI, OSU OBIC, Quasar, and other business partners. Also, active professional development provided by HSTW and held on site for blended learning and web based curricular resources. By Thanksgiving lessons and units developed by teachers. Lesson proposals approved by 5-12 departments of teachers for teachers, by teachers. By Christmas vacation all proposals approved. Lessons take place from January-May 2005 with ongoing content department meetings via early release days, student feedback, business liaison comments, administrator observations. Student work and projects will be scored via a rubric in an ongoing manner and summarized each 6 weeks. Project presentations will be held mid-May, 2015. Culminating projects and presentations scored via a final rubric. Teacher feedback developed, solicited through HSTW in late May. Student feedback developed and solicited through HSTW in late May. Additional student outcomes will be assessed via state test data, STAR assessments, individual teacher SLOs, Aspire.

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

Barriers are likely to be teacher resistance to new teaching model, blended learning, resistance to shifting toward role of facilitator through LDC, MDC, and blended learning approaches. Insecurities will be overcome through ongoing, timely supports, long-term trusting relationships between administrators & teachers, with HSTW, and OSU. We have a great working relationship with our local Teacher Association and through stability of our administrative team and board of education (all administrators have been together for a minimum of 8 years with the exception of 1 year for our Asst. principal) we have established reputations of integrity and trust.

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:

By teaching students through project-based instruction research strongly correlates to increased student engagement as well as increased learning, self-worth, and student achievement. As a result, reduced remediation will result in saved dollars for the district. We budget over $60,000 annually for student remediation and additional supports locally beyond Title I and IDEA programs and fund spending. By increasing teacher use of blended learning and online resources we are providing the professional development and capacity for the transition from being textbook bound to being textbook free. Our ultimate goal is to be textbook free. We will no longer purchase individual student textbooks, for which we have traditionally budgeted and spent more than $60,000 annually. We would continue purchasing some resources for teachers. However, these would be limited to $10,000 annually in total, as we believe that our teachers are and should have their skills honed at being the curriculum experts in their content areas. As a result, we feel that we train them to find digital resources, then they develop their units and lessons based upon the content as aligned in the Common Core Curriculum content standards. We also believe that teacher efficacy will improve as a result. We are currently at a 1 to 3 student to Chromebook/laptop ratio in grades 6-12. We feel we need a 2 to 3 ratio in order to see a 1 to 1 student to device ratio on a daily basis. This is because we believe we can attain the other 1/3 of our students having devices through our BYOD program by the start of next school year. This would render textbooks obsolete. While we would spend a total of $54,270 annually at current prices for Chrome Book replacements, we are currently spending $35,000 annually on current device replacement cycles. We would be saving $30,730 when compared to what we currently spend annually in textbooks and devices.
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(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.

Rational - We believe we are fundamentally improving instruction through this grant application and processes. Research - There exists volumes of research supporting project-based instruction, LDC, MDC, and use of technology as a part of improving instruction. Past Success - We have institutionalized STEM programs and project-based instruction to some degree in our Science and Math departments in the MS and HS levels. This grant project and the partnerships we have formed are instrumental in carrying this forward, strengthening and expanding our STEM programs, and completing the institutionalization of project-based instruction across all disciplines in a very practical and meaningful way. It is grounded in research, and supported with essential professional development. HSTW and SREB are founded on research in these areas. OSU ATI, OSU OBIC are grounded in experience, research, and practical application, Quasar Energy Group is grounded in practical application.

Outcomes - a significant increase of incoming open enrollment students from surrounding school districts - an increase of college-bound students - an increase in senior scholarship dollars for college - Increased ACT scores - continued increases in scholarships for college and college enrollment - student satisfaction surveys post-graduation - enrollment increase of 68 additional students (our capacity without employing additional personnel) - we have already increased incoming open enrollment from 54 in 2005 to a current 200 this school year - these additional students result in significantly increased dollars of $5,800 per student or more (depending on weights) - more capable writing skills - increased college success - increased lexile reading and writing ability of students.

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.

Diane Rogers, HSTW. hstwe@wowway.com 614-668-0686 SREB (Southern Regional Education Board), national parent organization
HSTW, founded on research and specializes in assessment and outcome-based instruction. They have teams comprised of curriculum experts from across the nation for evaluation purposes. HSTW/SREB LDC and MDC week long training (8 teachers), with teacher stipends, OSU OBIC (Ohio Bioproducts Innovation Center) Bioenergy and Bioproducts Education Aug 4-8 (2 expert teachers) Programs. August-June, 2015 OSU OBIC training program to begins & is intense early, with supports through spring. September-November - active professional development with LDC, MDC "resident experts" exemplifying train the trainer model where they spread LDC and MDC, with ongoing HSTW support & professional development activities. Exploratory and research topics with students begin with ATI, OSU OBIC, Quasar, and other business partners. Also, active professional development provided by HSTW and held on site for blended learning and web based curricular resources. By Thanksgiving lessons and units developed by teachers. Lesson proposals approved by 5-12 departments of teachers for teachers, by. By Christmas vacation all proposals approved. Lessons take place from January-May 2005 with ongoing content department meetings via early release days, student feedback, business liaison comments, administrator observations. Student work, projects scored via a rubric in an ongoing manner and summarized each 6 weeks. Project presentations held mid-May, 2015. Culminating projects and presentations scored via a final rubric. Teacher feedback developed, solicited through HSTW in late May. Student feedback developed and solicited through HSTW in late May. Additional assessment via state test data, STAR assessments, individual teacher SLOs, Aspire.

* 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).

Diane Rogers, HSTW. hstwe@wowway.com 614-668-0686 SREB (Southern Regional Education Board), national parent organization
HSTW, founded on research and specializes in assessment and outcome-based instruction. They have teams comprised of curriculum experts from across the nation for evaluation purposes. HSTW/SREB LDC and MDC week long training (8 teachers), with teacher stipends, OSU OBIC (Ohio Bioproducts Innovation Center) Bioenergy and Bioproducts Education Aug 4-8 (2 expert teachers) Programs. August-June, 2015 OSU OBIC training program to begins & is intense early, with supports through spring. September-November - active professional development with LDC, MDC "resident experts" exemplifying train the trainer model where they spread LDC and MDC, with ongoing HSTW support & professional development activities. Exploratory and research topics with students begin with ATI, OSU OBIC, Quasar, and other business partners. Also, active professional development provided by HSTW and held on site for blended learning and web based curricular resources. By Thanksgiving lessons and units developed by teachers. Lesson proposals approved by 5-12 departments of teachers for teachers, by. By Christmas vacation all proposals approved. Lessons take place from January-May 2005 with ongoing content department meetings via early release days, student feedback, business liaison comments, administrator observations. Student work, projects scored via a rubric in an ongoing manner and summarized each 6 weeks. Project presentations held mid-May, 2015. Culminating projects and presentations scored via a final rubric. Teacher feedback developed, solicited through HSTW in late May. Student feedback developed and solicited through HSTW in late May. Additional assessment via state test data, STAR assessments, individual teacher SLOs, Aspire.
**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.**

We will adapt as needed. Since we are investing in Human Capital and the additional Chrome Books as tools the project will be valuable regardless of the degree of success. The investment is necessary to increase lexile levels, 21st C skills, higher order thinking skills, project-based instruction, use of technology, and utilization of blended learning so will improve instruction and student outcomes regardless.

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**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.

Outcomes: - a significant increase of incoming open enrollment students from surrounding school districts - an increase of college-bound students - increased graduation rate - increased ACT scores - continued increases in scholarships for college and college enrollment - student satisfaction surveys post-graduation - enrollment increase of 218 additional students - more capable writing skills and increased vocabulary - increased college success - increased lexicon reading and writing ability of students

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**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**

- increased lexicon reading level overall vocabulary improvement improved research, presentation, project creation, and critical thinking skills
- improved collaborative teamwork and problem-solving skills
- improved technology skills
- improving the focus of career interests
- increased assessment scores
- improved student engagement and motivation
- long-term improvement in graduation rate

Teachers will utilize ongoing, short-term formative assessments to gauge learning and outcomes for their discipline, ELA skill improvements are most important. In addition, the growth will be monitored through individual use of SLOs, standardized assessments as earlier mentioned. The final evaluation will be rubric-based and the projects themselves will speak to their performance level. The assessment/evaluation form HSTW will be invaluable in determining if outcomes are met. Follow-up in future years will be conducted through student and staff survey, as well as administrator evaluations, Teacher Based Teams, Building Level Teams, and our District Level Team.

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**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**

Easily replicated through our networks of HSTW schools, BioOhio groups, and NE Ohio Bioscience consortium, as well as many partners.

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**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 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). Northwestern Schools ensures that all parties, including partners, have committed various supports as indicated through action of an authorized representative or appropriate oversight board. Northwestern further guarantees the stated and agreed-upon proposal and use of funds will support the activities indicated. Jeffrey N. Layton Superintendent Northwestern Schools
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>Dustin</td>
<td>Homan</td>
<td>614-247-1940</td>
<td><a href="mailto:homan.64@osu.edu">homan.64@osu.edu</a></td>
<td>The Ohio State University OBIC Innovation Center</td>
<td>2001 Fyffe Court, 240C Howlett Hall, Columbus, Ohio, 43210</td>
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<tr>
<td>Dr. James</td>
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<td>330-287-1331</td>
<td><a href="mailto:villers.11@osu.edu">villers.11@osu.edu</a> (C/O Michelle Villers)</td>
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<td>Quasar Energy Group</td>
<td>5755 Granger Road, Suite 320, (local plant in Wooster, Ohio), Cleveland, Ohio, 44131</td>
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<tr>
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<td>614-668-0686</td>
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<td>HSTW SREB</td>
<td>4300 Amalgamated, Suite 100, Groveport, Ohio, 43125</td>
<td></td>
</tr>
</tbody>
</table>
## Implementation Team

### First Name | Last Name | Title | Responsibilities | Qualifications | Prior Relevant Experience | Delete Contact
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Jeffrey | Layton | Superintendent and Implementation Team Leader | My responsibilities: Oversee the coordination of building principals, OSU OBIC, OSU ATI, Quasar, HSTW, and other businesses and partners. Work with and coordinate efforts of our curriculum Director, Principals, and Business Liaison. Financial oversight and oversee budget. Marketing, public relations, and media outlets - area newspapers (3), regional newspapers, local radio and television stations, through Chamber of Commerce, Economic Development Council, BioOhio, NE Ohio Bioscience Consortium, and district newsletter. I sit on the regional Public Television board of Trustees (WTIZ), our STEM Advisory Council, HSTW The Ohio Network Board, and our regional Data Acquisition Site (TCCSA). I work with and know many of these players on a first name basis, as we are well-networked. | Has 24 years of education and have written and oversee numerous grants - well over $2,000,000 in grant in over 18 years of school administration. Superintednet experience 12 years with the last 9 years beign Northwestern. Communications, PR, and logistics expertise. On numerous oversight Boards (to name a few): WTIZ Board of Trustees Member HSTW The Ohio Network Board of Trustees Chair TCCSA Regional Computer Network Board of Directors Board Member and an initiator of Wayne County Liberty Preparatory Community School BioOhio Business- Education Committee BioOhio Scholarship Committee Member BioOhio Member NE Ohio BioScience Consortium In 2012 awarded Buckeye Association of School Administrator Exemplary Leadership Award | Have written over $2,000,000 in grants throughout 16 years as a school administrator. Major grants while at Northwestern: - a three-year $270,000 Character Education Grant 2006-20010 - An $82,000 K-12 STEM Grant from Ohio Board of Regents in 2009 - Ohio STEM "Project Lead the Way" Grant funding of over $60,000 over a three-year period - More than 8 consecutive continuous $8,000 to $12,000 HSTW Grants from 2005 to current - $28,000 CORE Curriculum Grant in 2008 - $15,000 Transitions Grant - $10,000 MS-HS Transitions Grant in 2007 - K-8 STEM Grant of $24,000 from Ohio Board of Regents in 2010 Over $50,000 in area business contributions over the past 8 years in support of our High School STEM PLTW programs and Robotics Club. Over $20,000 in school bus retrofit program in 2011. Numerous additional grants of $500-$6,000 (over $150,000 in grants over the past 8 years) from numerous smaller foundations and entities Incl. Monsanto, Wayne County Foundation, Martha Holden Jennings, Wal-Mart, Best Buy, Weltmer Trust, etc. We have also participated in numerous consortium grant programs in which we have collaborated for hundreds of thousands of dollars over the past 8 years. |