<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>100</td>
<td>55,614.00</td>
<td>14,386.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>70,000.00</td>
</tr>
<tr>
<td>Support Services</td>
<td>100</td>
<td>76,693.00</td>
<td>18,307.00</td>
<td>0.00</td>
<td>0.00</td>
<td>92,000.00</td>
<td>0.00</td>
<td>187,000.00</td>
</tr>
<tr>
<td>Governance/Admin</td>
<td>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>
<td>0.00</td>
</tr>
<tr>
<td>Prof Development</td>
<td>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>
<td>0.00</td>
</tr>
<tr>
<td>Family/Community</td>
<td>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>
<td>0.00</td>
</tr>
<tr>
<td>Safety</td>
<td>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>
<td>0.00</td>
</tr>
<tr>
<td>Facilities</td>
<td>00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>648,500.00</td>
<td>79,950.00</td>
<td>728,450.00</td>
</tr>
<tr>
<td>Transportation</td>
<td>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>
<td>0.00</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>132,307.00</td>
<td>32,693.00</td>
<td>0.00</td>
<td>0.00</td>
<td>648,500.00</td>
<td>171,950.00</td>
<td>985,450.00</td>
</tr>
</tbody>
</table>

**Adjusted Allocation**: 0.00

**Remaining**: -985,450.00
A) APPLICANT INFORMATION - General Information

1. Project Title:
One World Schoolhouse

2. Executive summary: Please limit your responses to no more than three sentences.
The Ottawa Hills school district, in a unique long term collaboration with the University of Toledo, is requesting a $985,450 grant for the One World Schoolhouse (OWS) partnership. This partnership will achieve cost savings through spending reductions on traditional K-12 classroom content and positively impact student achievement via: Flipped classroom content which replaces traditional content, thus allowing self-paced learning and saving on paper based classroom materials. Advanced simulation game course content that provides project based learning (PBL) technology, which allow students to apply knowledge from flipped class content in actual applications. Technology infrastructure installed at Ottawa Hills and the University of Toledo that will allow students to interact in state of the art methods, such as DL sync courses, international virtual synchronous teams and advanced 3D immersive experiences. In addition to the above technology based content, this partnership will offer well prepared Ottawa Hills High School students an opportunity to dual enroll at the University of Toledo, and be part of the team working on advanced technology development of this new curriculum. This type of experiential learning is not available anywhere in the area. We believe that this project will bring one of a kind value the entire Northwest Ohio region, as it is scaled to other school systems.

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.

1000 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: - Provide the following information:

First Name, last Name of contact for lead applicant
Kevin S. Miller Ed.D, Superintendent

Organizational name of lead applicant
Ottawa Hills Local Schools

Address of lead applicant
3600 Indian Road, Ottawa Hills, OH 43606

Phone Number of lead applicant
419-536-6371

Email Address of lead applicant
kmiller@ottawahillsschools.org

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.
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

This project will address the shortcomings of the current learning paradigm in K-12 education. Currently, students are moved in "lock step" through the K-12 system based on a "seat time" model. By moving students through the system in this manner, there is no assurance that they are mastering all the concepts required for the next level in the progression. Further, there is little time to assess whether students can actually apply their knowledge in a practical way. This leads to the four problem statements: 1. Current K-12 educational paradigms move students in "lock step", which can lead to incomplete mastery of important concepts needed at the next level in the progression. While students may progress through this system based on "seat time", their inability to master certain concepts will eventually limit how far they can progress in the system, which ultimately impacts their future career opportunities. 2. Currently, there is no access to good curriculum for students interested in learning computer programming skills in an actual application environment, a necessary skill for 21st century students. While most students are adept "users" of technology, very few have an understanding of how these same technologies are used to build solutions. This is another example of where US students are behind their counter-parts in the global economy. 3. Current K-12 students are underprepared to enter the global economy as an effective participant. While many students visit foreign countries, very few ever have the opportunity to work or collaborate globally on a project. 4. It is widely accepted that digital content is the wave of the future, however it is not as readily available, and K-12 teachers aren’t as ready to use it, as many would assume. Currently there is no effective repository for approved digital content and no local place for teachers to receive professional development on how to find, develop and best utilize digital content in today’s classrooms.

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

This partnership will address the problem statements with a multi-pronged approach to increasing student achievement and reducing cost. The program consists of four major components, each with its own set of positive outcomes. 1. Flipped classroom model/project based learning (PBL) through simulation gaming applications address the first problem statement: a. These deliveries allow students to have personalized environments, utilizing self-paced learning with a competency based focus. b. Teachers will improve their skills using these educational technology pedagogies including both flipped and un-flipped class content. c. Accomplishment dashboards demonstrate competency achievements. New curriculum offerings provide an opportunity to learn and demonstrate knowledge through simulation games using Project Based Learning. d. Active learning with advanced simulation educational gaming, which stress the application of knowledge developed. e. Simulation developed to enhance courses providing opportunities for students to apply their knowledge in project based settings. f. Virtual team settings where students learn to collaborate to apply their content knowledge in advanced simulation gaming applications. g. Utilization of technologies selected and validated ensures effectiveness in student achievement. Testing and validation of these teaching pedagogies will bring new data to educators to better help improve the understanding of the real impacts from these methods. h. The utilization of flipped classroom content and advanced simulation games to apply student knowledge will provide a best practice solution to the first problem statement. 2. Dual enrollment and College Credit Plus provide unique experiential learning that addresses the second problem statement: a. As part of this program, OH high school students will participate in UT’s development teams to create digitized content that will be delivered back to the OH school district. b. This activity will include working inside the UT development teams to help create advanced simulation gaming modalities. This will not only provide one of a kind experiential learning, but college credit and access to advanced programming curriculum not currently available in this region. c. This experiential learning will bring the students to the UT campus and provide unique experiences in the newly built $36M UT Inter-professional Immersive Simulation Center as well as the under construction OWS Advanced Simulation Game Studio. Using the University of Toledo’s advanced simulation facilities allows the Ottawa Hills students access to the most technically advanced resources in the state. 3. Advanced technologies will allow the OH students to participate within broader international teams addressing the third problem statement: a. This program will implement a connection from OHHS to UT International Connections Center allowing students to work with global student teams and play simulation games as part of PBL pedagogies. This form of Virtual Experiential Project Based Learning will expose students to working in the new globally connected world. 4. This project will create a repository of information for teachers to access as well as professional development opportunities through programs at UT, which will address the fourth problem statement: a. The last and possibly most important element in successfully deploying this new learning modality is the teacher. b. As the content of this program is developed, OH teachers will be intimately involved with the UT teams, which will enhance their understanding of how to apply the tools within the classroom setting. c. OH teachers will have access to a library of tools and documented methods that will be used with the technologies. d. While the teacher preparation is not the primary goal of the program, it cannot be successful without addressing this aspect of the cycle of learning by students.

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
C) SUSTAINABILITY

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

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 centers, 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 higher education should use the "non-traditional" tab.

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.

985,450.00 State the total project cost.

* Provide a brief narrative explanation of the overall budget.

I. Instruction 1. OH - $20,000 2. UT - $50,000 a. The funding for instruction includes funding to purchase some faculty and teaching time mainly where curriculum development and approval is concerned. Because our main focus here is student achievement we feel it imperative that we have dedicated faculty and teachers paid to focus on this development. II. Support Services: 1. OH - $40,000 a. This funding covers the support services necessary to successfully launch this project and move it forward in a timely manner. Examples of the staff covered with this funding is partial IT staff, administrative help, curriculum development 2. UT - $147,000 a. This funding covers the support services necessary to successfully launch this project and move it forward in a timely manner. Examples of the staff covered with this funding is partial IT staff, grant administration help, significant student support. The student involvement in this program is key as it will provide significant programming support as we pair up seniors from UT’s programming and IT courses with 9-12 students from OH that will be developing applications for OH schools. This will provide experiential learning for both UT and OH students while enabling app development at low cost, making the program sustainable. While senior support staff will oversee this process, using UT students will allow for quicker app development and allow for significant cost savings for program staff. III. Facilities: 1. OH - $337,000 2. UT - $351,450 a. This is the most significant area of the budget as purchasing the initial equipment and renovating the facilities is key to moving this project forward. For the most part these are upfront costs and will only recur in the form of software and hardware maintenance, which won’t occur until approximately year 3 and will be covered with cost savings from the program. Examples of the costs covered with this funding are: video telepresence equipment - used in the international room and constructed at both the OH and OWS locations; general hardware and software; VIR technology - used for the simulation gaming; and installation costs for all equipment.

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.

The ongoing costs for the project will be nominal and consist of technology maintenance. Much of this is absorbed as maintenance activities within the UT OWS operating budget, as the project leverages these assets. We estimate that costs to be no more than any typical school maintenance fees for other programs and facilities and the professional development will not be in addition to the standard required development, however for the teachers involved in this program it will be an in place of scenario. This project is still sustainable as the maintenance costs are still significantly less than the cost savings derived from the replacement of textbooks for a significant portion of the K-12 curriculum.

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.

50,000.00 If yes, specify the amount of annual expected savings. If no, enter 0.
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.

The key to the lasting value of this program is the multiple dimensions of its sustainability. First, the program will leverage the strong technology relationships that the University of Toledo has with its simulation centers. These include companies like Apple, Cisco, IBM, Microsoft, Barco and EON Reality. To ensure the solutions remain on the leading edge of technology for education, the University has adopted multiple key stakeholders to support the technical architecture. This will reduce the chance of the technology becoming aged, and the program becoming another obsolete tech-ed project. These strong relationships with the technology community will further enhance the continuously refreshed environment, without carrying the burden of full cost replacements. These relationships are expected to reduce the continuing replacement cost (maintenance) by over 50% during the next five years. These reduced maintenance costs are then at a level where the project cost savings can cover them on a recurring basis. This project will include annual maintenance costs, however the savings that will result from the activities of the program will more than offset these additional costs. As previously stated, the sustainability for this program is derived by 9-12 students creating digitized content and content delivery modules for all students K-12. That content and applications will then be implemented within its intended classroom and will replace textbooks and other paper based materials, saving OH $50,000 annually. While this may not seem like an overwhelming number, it is more than pays for the maintenance costs of the program. This means that OH would likely have had to purchase both content and delivery modules in the near future anyway, so this program represents a cost avoidance. The long-term sustainability of this program is further enhanced by leveraging the assets of the University of Toledo. Since the startup costs for OH are nominal, and UT has a separate operating and revenue model, which exists outside of this program, we are confident that this program is sustainable for 5 years and beyond. This will start in year 2, once the initial learning applications are created by the 9-12 programming students. These applications will replace textbooks and other materials, as content will be digitized. An example may be: a student participating in the dual enrolled program will create a phonics reading application as part of their computer programming course. Once the digitized content and the application are tested and approved, it will be integrated into the appropriate classroom and replace the now obsolete textbook and materials for that subject. This will become a significant cost saving opportunity as more content is created, especially as digital content is already being purchased to replace textbooks in many school districts. OH will now have the ability to save money by using its' students, along with members of the UT OWS technology teams to help create the new classroom applications.

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 timeline should reflect significant and important milestones in an appropriate and reasonable time frame.

17. Planning - Activities prior to the grant implementation
The genesis for this project began when UT leadership had a vision that the OWS methodologies (inspired by Salman Khan) were tightly connected with the already existing goals around new technology based educational formats being explored across the campus. Salman Khan came to campus to help outline UT’s program, and was an honored speaker to a sold out crowd on campus September 17th. At that event he endorsed the use of the OWS structure at UT associating with his brand. When the Ohio Straight A Fund was formally announced, the project team was assembled as well as other key stakeholders, which allowed the planning for this highly innovative project to get off to an early start. Planning for the project has already started between the UT team and Ottawa Hill leadership. Time has been spent in planning the following major points: Scope of the work during the grant phase, and the post grant periods Academic literature review of flipped classrooms and project based learning Roles and responsibility matrix during each phase Identification of the key project team members Project controls and authorities Work plan and its connection to budgets Logistics of managing project resources Prioritization of course content and assessment methods Planning the Kickoff once the grant is approved Once the grant is approved, the OH and UT teams will be in daily communication to ensure proper planning and scope design are tightly managed. A full time UT resource will be assigned to work within the OH team to ensure consistent priorities, timely resolution of issues and daily management of activities is occurring. A detailed plan in Microsoft Project will be maintained daily and available to all participants so that major changes in scenarios are showing in the latest timeline and costs and exception management can be applied where needed.

Although much of the planning for initial program launch has already occurred, this planning portion of the overall scope of work will be continuous as we will continue to update and implement new curriculum, new pieces of the program and measure success. In order to be successful in this process we will engage multiple stakeholders from UT, OH and other institutions to ensure we have the full support of those directly affected by the program. That said, one potential barrier is engaging the most effective partners and getting each of them at the table on a regular basis to provide valuable feedback. While this is a potential barrier, we believe this will be easily mitigated as we already have buy in from senior leadership at UT and OH, including President Jacobs and Superintendent Kevin Miller (respectively).

This is clearly the most critical of allpieces as it has many complicated phases with simultaneous tasks and requires inputfrom partners at each step. The project consists of 4 major work segments(outlined below). As you will see, key stakeholders that will be engaged are noted: 1. August through December will be spent with facultyProfessional Development time as well as utilizing key faculty, volunteers and students to create initial content for the initial test courses, Social Studiesand Sciences (K-12). 2. August will also kick off the construction phasenecessary to create the physical infrastructure on the OH campus and the UT OWSfacility. The construction will occur in the old computer lab of the OH HighSchool and the Northeast corner of the UT OWS facility. Construction will be complete in November 2014. 3. Creation of computer programming curriculum for grades 4-12 will begin in August with the goal of holding the first class in the winter semester (January 2015). 4. At that time we will officially launch this program, utilizing flipped classrooms for Social Students and Science courses and the development of the required technologies for the OWS project. 5. International Room - this room will be just part of the OWS facility and be available in time for use in January 2015. This will allow that facility to be used to host international collaboration meetings between OH students, and international students in other locations - with the OH students in their room at OOH5. There is no project cost for this as it will be an existing asset. 6. Once the construction and technology installation is complete, we foresee a sharp growth in dual enrolled students working inside the OWS facility. This program currently occurs through post-secondary enrollment option; however the relationships and technology this program creates will increase accessibility and allow students to take more dual enrolled courses through distance learning.

As with any project of this size the barrier is always timeline, and in this case that applies to both construction and digital content/curriculum. For example, our primary barrier to implementation is getting timely content definitions that precede the development of digitized flipped classrooms and associated simulation games. However, many members of the leadership team have experience in large-scale work, IT and curriculum development. Utilizing this talent we can create a very detailed implementation plan; therefore the risks of any surprises are greatly reduced. Because of this highly skilled team and top down support we are confident we can overcome these barriers to success.

Assessment of the project execution, which will address the major deliverables, quality, budget and schedule. An objective scoring rubric will be used to make this assessment. Assess the working relationship between UT and OH; this is also critical as the program scales to other school districts. Evaluate the educational technology modules, and their effectiveness, including possible changes. In order to ensure that we are thoroughly validating the success of the program, we will use multiple assessment tools: TerraNova 3rd Edition and InView - These assessments measure student academic achievement and ability, then compare the results, allowing us to discover if the students are truly meeting their full potential. This will be key for measuring the success of this program as they will determine if our students are working beyond what they are expected to achieve. State of Ohio Next Generation Assessments for sciences and social studies - These new statewide assessments will allow us to measure ourselves against other districts in the state. As a result of this program, we would expect to be in the top 10% of the school districts. Once we fully integrate all curriculum into this project (years 2-5) we will use Ohio’s new Common Core state assessments developed by PARCC to measure how students are performing in English/language arts and math against other districts in the state and nationally. The OH team will work closely with the UT Educational Assessment team, to ensure a valid evaluation of the effectiveness of this pedagogy. Assess the readiness of this implementation to the other schools in the region. We will test this using many methodologies, the student centered include: Understanding and measuring student involvement: Dual enrollment - now that we have made dual enrollment more accessible, we hope to increase the adoption rate by 50%. How many students became involved in the new after
A main barrier to success when considering evaluating student achievement is the effectiveness of the current measurement and student assessment tools. This is a barrier that many schools districts have faced for a number of years and while certainly there are improvements, there are still changes to be made. After much planning and discussion, we believe we have chosen the best assessment tools available and we are confident they will paint a picture of success this program and these new learning pedagogies have on students. An additional barrier is that our measurements are not only based on achievement, but also based on student involvement and the student experience. This can be difficult to benchmark and track at times, especially in a short window of time. While this is clearly a potential barrier, we are confident that we will overcome this given the talented IT team and project management team members committed to this program. In addition to the talent, we have a drive to use these outcomes to prove our theories, as we truly believe this will change the face of education for generations to come.

**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 workday for specific staff members, etc.). The expected changes should be realistic and significant in moving the institution forward._

*This grant changes the classroom environment from a traditional classroom to a lab-based environment of experiential learning. The teacher maybe a UT student or professor, the classroom teacher, or other students from Ottawa Hills or anywhere else in the world. The computer screen becomes the window to limitless opportunities for our students and staff, and the teacher becomes the facilitator of learning. Ottawa Hills has a fully implemented 1-1 laptop program in place for grades 7-12 with laptop carts available for grades K-6. With this digital accessibility comes the opportunity to expand teaching and learning beyond the confines of the school walls through the virtual platform of OWS. This grant will enable a shift in instructional practices and general classroom organization that provides enhanced capabilities for learning in a digital world. Content like computer programming previously relegated to a high school curriculum can be brought down to the elementary thereby developing early computing skills that become foundational to the digital learner of the 21st century. Digital content changes instructional practices whether used in a classroom setting or in a flipped classroom environment. Digital content is didactic and captures the interest of the learner. The development of digital content as provided in this grant shifts student learning from traditional paper-based textbook instruction to a virtual textbook provided digitally. Learning is experiential and project-based, and teachers orchestrate the learning process and determine mastery through competency-based assessments. Students not only learn from the digital content, but are part of development teams that create and implement content through this grant. Teachers become the facilitators of learning in the classroom and at UT. Digital content can be shared within our school walls as well as with other students in northwest Ohio, the US, and beyond. Teachers and students will collaborate with UT staff and students in a digital environment with a focus on computational thinking and project-based learning. The beauty of this platform is learning can take place anywhere, anytime, and the One World Schoolhouse becomes the portal that makes it all happen. These skills are essential for college and career readiness for all students. Computational thinking is the 21st century problem solving process that teaches students to think critically. It helps students take complex problems and break them down using logical steps similar to those used by a computer programmer. Therefore, introducing code and computer programming in the elementary grades through high school develops a computational literacy that transcends traditional curricula across the content areas. It is a new way of thinking and thereby challenges the teachers to shift instructional practices to incorporate this logical and systematic approach to teaching and learning. Teachers will need professional development (PD) to learn effective strategies to integrate these pedagogical shifts in instructional practice. This grant provides a teleconference capability for PD. This same platform that provides PD for teachers can provide a learning platform for students. Any content from anywhere in the world can be available for students and teachers with the use of the teleconference platform. This same platform then becomes a vehicle whereby our students and teachers can provide instruction to others. The shift in instructional practices and pedagogy will open opportunities for our students and staff to become involved in dual enrollment through UT. Students and staff will have the opportunity to experience coursework at the university level. Whether through the four modalities developed for the College Credit Plus program at UT or thorough a dual enrollment certified teacher, students can be challenged at the university level and gain valuable experience and college credit while in high school._

**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._

*Research to support idea: While this is a new project, we are encouraged of its potential impact on student achievement. There is very little research on the flipped classroom, and results are only recently coming out. One example of anecdotal research comes from a successful project similar in nature - a flipped classroom that was tested in 2011 in Michigan’s Clintondale High School. The principal and Social Studies teacher worked together to create a flipped classroom and accompanying curriculum and paired it with a traditional classroom to be...*
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.

For the evaluation of this project we will engage the Judith Herb College of Education as they have a specific group dedicated to student achievement assessment and decades of experience working with programs such as these. In addition to the UT experts we will engage the OH Director of Curriculum, Rosalice Manlove, to measure the program from start to finish. Rosalice has decades of experience in curriculum development, grant administration, student achievement metrics and state measurements tools which more than prepares her to ensure the metrics are collected and are appropriate for evaluating program success. Name and Contact of Evaluators Faculty/Staff of Judith Herb College of Education Charlene Czeriak charlene.czerniak@utoledo.edu Rosalice Manlove Director of Curriculum and Instruction rosalice.manlove@ottawahillsschools.org

* 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).

This project will implement a validation program to measure the impact and effectiveness of these various technologies. We expect to observe certain situations on a case study basis, but no real data will emerge. During the project, the OH and UT team members will develop an assessment methodology that will provide a construct to test the impact of this program in a longitudinal study. This will provide the real experimental data to test the effectiveness of this new educational pedagogy. This will provide further baseline information to provide more customized rubrics in the evaluation of the effectiveness around these technologies. This will be important validating information, which will be necessary before the program is extended beyond the Ottawa Hills school system. The advantage of a small high quality school system leading this initiative provides leverage to extend the program more quickly. Therefore the evaluation plan covers a few dimensions. The first is adoption by Ottawa Hills’ teachers; the higher the adoption, the greater the inferred impact, and it is safe to say an ineffective program will not be adopted. Next is student impact. For this we will look to a mix of well-established constructs that are nicely standardized, and some new novel measures that reflect perhaps new objectives of the learning process. These measures, variables and instruments will be designed by the assessment team from the Judith Herb College of Education working with OH during the project. One of the initial outcomes of this project will be data and solid examples of how technologies and active learning pedagogies positively enhance student achievement, especially in context specific settings. This outcome could become the first real research published that clearly illustrates these new learning methodologies. Even more, it could provide the first real information to the teaching community on the optimum ways to apply these technologies.

* 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.

There are two major contingencies on the project that need to be addressed. The first contingency is to deal with delays in implementing the actual technology infrastructure and course content. The second contingency is to deal with the actual program launch into the classroom setting, and associated evaluation. The delays in implementing the technology infrastructure and course content typically fall in two areas, vendors and development. The contingency against vendor delays will be the utilization of existing facilities at the University of Toledo. While lacking some convenience, the existing facilities at the University could be used for the Ottawa Hills students until the installation is completed at their high school. The contingency against development delays is solved by the early addition of resources within the University team. The development methodology, which uses strong engineering discipline allows for additional resources to be added to efforts with less project disruption than typically seen in these efforts. Any delay in the classroom launch will necessarily impact this phase directly. However, we do have a contingency to add resources in the evaluation step. The evaluation step is relatively short, however contingent resourcing could mitigate the loss by 1-2 weeks of project time.

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.

This program is expected to create the following value propositions: It will be a seminal work in the area of assessing the new technology...
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 plan to evaluate the actual educational technology modules, and their effectiveness, including possible changes based on student achievement. In order to ensure that we are thoroughly validating the success of the program, we will use multiple assessment tools. These include: TerraNova 3rd Edition and InView - OH uses these assessments together to concurrently measure achievement and ability: these assessments measure current student achievement and ability, and compares student performance to their ability levels. These assessments allow us to discover if students are truly meeting their full potential. These assessments will be key for measuring the success of this program as they will determine if our students are working beyond what they are expected to achieve. State of Ohio Next Generation Assessments for sciences and social studies - because this is a new assessment tool we don’t have our own benchmark, so we would measure ourselves against other districts in the state. We will measure our students annually with both testing tools we would expect our students to score in the top 10%. Once we fully integrate all curriculum into this project (years 2-5) we will also integrate the state PARCC testing to measure how students are performing on the Common Core. This will allow us to determine how the students are performing against other schools in the State of Ohio as well as against other schools nationally. Once PARCC is implemented as a measurement tool we anticipate our students to score in the top 20% for the Common Core. Additionally, an increase of dual enrolled students is an additional metric as it illustrates the students’ involvement level and the adoption of digital learning using the tools provided by this program. We will measure this number annually and expect it to grow 50% each year.

* Spending Reduction in the five-year fiscal forecast

Ottawa Hills School District spends $100,000 per year on textbooks alone, and that doesn’t even include updating books for each classroom each year. This program will not only provide real time content, but it will also save $50,000 a year in textbook alone. We are aware that it will take at least 2 years to fully ramp up our digital content repository and that in future years there will be maintenance costs, therefore we would measure our success in this area by our program being self-sustaining as well as demonstrating a 25% cost savings in textbooks budget. Measurements will be taken annually as budgets are prepared and audits are performed.

* Utilization of a greater share of resources in the classroom

This will be measured using a teacher and curriculum evaluation tool filled out by the parent and student. This evaluation will be done each semester and will measure student satisfaction with the flipped classroom approach, how much time each student spends using digital content at home and how much additional individual time teachers are spending with students. In addition to this survey the success of a different distribution of teacher time in the classroom as well as additional course offerings, like programming content and access to international collaborations, will ultimately be measured by student achievement, which is the main focus of the OWS/OH collaboration.

* Implementation of a shared services delivery model

* Other Anticipated Outcomes

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

The purpose of this program is to deliver new educational technology based learning tools/systems that allow for personalized education and experiential learning. These tools include digital content that might be straight lecture or have interactive components, in a flipped classroom. These could be delivered as part of a flipped classroom, or actually in quite conventional modes. Additional learning technologies in the form of advance simulation educational games is an important component of the strategy. These all combine to provide a set of components that can provide context specific customized and individualized education. The way that this will extend is in three steps. The first step is the creation and validation of these technologies in the UT OWS Learning Innovation Lab School, involving the 9-12 students. This is where these new technologies are tried in a lab scale environment. Once they are validated, the technologies are moved to the alpha/beta state in a live classroom in the Ottawa Hills schools. The sustainability value for the school district is derived at this point as the testing and implementation of the products replaces traditional textbooks and materials. After the successful beta in OH, other school systems will be welcomed to observe and pick up these technologies with the assistance of the UT OWS partnership. As more schools join the network, the adoption and spread of each successful technology will be viral. Successful technologies will be rapidly taken up by each new district. Adoption would
follow the classical frame of early adopter to mature adopters, but the network would facilitate the move. Similarly, once the Ottawa Hills - UT learning and sustainability model is proven other school districts will be able to access the OWS site and implement their own program. This will insure the sustainability of the OWS program.

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 agree, on behalf of this applicant, and any or all identified 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.
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>
<th>Delete Contact</th>
</tr>
</thead>
<tbody>
<tr>
<td>William</td>
<td>McCreary</td>
<td>419-530-5683</td>
<td><a href="mailto:william.mccreary@utoledo.edu">william.mccreary@utoledo.edu</a></td>
<td>University of Toledo - One World Schoolhouse</td>
<td></td>
<td>2801 W. Bancroft - MS 103, , Toledo, OH, 43606</td>
<td></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>McCreary</td>
<td>Executive Director, One World Schoolhouse, Senior Fellow - College of Business and Innovation, University of Toledo</td>
<td>Bill McCreary, the Executive Director of the One World Schoolhouse at UT will be the main point of contact for this project and will work directly with all Ottawa Hills team members to execute the grant and oversee all technology aspects of this program.</td>
<td>Mr. McCreary is well credentialed and will serve very effectively in this role. He holds several degrees all from UT, which include a B.A. in chemistry and engineering; M.A. Economics/Econometrics; M.B.A. Finance; M.S. Applied Math and Computer Science; LLM Intellectual Property - College of Law and is currently completing a PhD in manufacturing systems and technology commercialization. In addition to Mr. McCreary's impressive educational background, he has held many senior level positions in the Toledo region, such as VP/CTO for Pilkington/NSG where he worked for 20 years executing very high level programs with multi hundred million dollar budgets.</td>
<td>Mr. McCreary's previous experience well prepares him to manage this project and will be ultimately responsible for planning and executing all facets of the program. Bill is well educated and credentialed, having been a successful entrepreneur, as well as holding senior executive roles in major global corporations for over 40 years. He is the retired CTO of one of the global leaders in ceramics technology where he ran budgets of over $300M per year involving deployment of complex technology across multi-national implementations. He is currently pursuing a PhD in complex genetic algorithm game simulations, and has created the world's first educational simulation game that takes you through the commercialization cycle of technology startup companies. This creation by McCreary has led to additional interest by major corporations in using the UT OWS as a training asset, thus demonstrating the sustainability of a key project support mechanism. He is active in the venture community serving on two boards, and has been a senior advisory board member to a number of global leaders in technology.</td>
<td></td>
</tr>
<tr>
<td>Kevin</td>
<td>Miller</td>
<td>Superintendent - Ottawa Hills Local Schools</td>
<td>Dr. Kevin S. Miller, Superintendent of Ottawa Hills Schools, will partner with Bill McCreary and his team from the University of Toledo to provide oversight of the implementation of the OWS grant. Dr. Miller's role will be to ensure that Ottawa Hills Schools is addressing the action steps outlined for the grant within the grant's timeline and budgeted funds.</td>
<td>Dr. Miller is in his fourth year as Superintendent of Ottawa Hills Schools. He has been an educator for 31 years, serving as an English teacher and a junior/senior high school principal previous to becoming a school superintendent. Dr. Miller holds degrees from The Defiance College, Indiana University, and Nova Southeastern University. He has done additional coursework at the University of Dayton.</td>
<td>Dr. Miller has experience coordinating large projects, the most recent being a $28.5 million building project at Hicksville Village Schools in conjunction with the Ohio School Facilities Commission. Previously, he has written and received grant funding exceeding half a million dollars as part of ODE's &quot;Raising the Bar in the Middle Grades&quot; technology program. In addition, he has extensive experience budgeting and implementing other grant-related funds, such as federal Title funds and High Schools That Work school improvement</td>
<td></td>
</tr>
</tbody>
</table>
He will also ensure that reporting requirements for the grant are fulfilled.

Rosalice Manlove, Director of Curriculum and Instruction at Ottawa Hills Schools, will partner with Charlene Czerniak of the University of Toledo to oversee development and integration of curricula associated with the OWS grant. Ms. Manlove joined the staff at Ottawa Hills Schools as Director of Curriculum and Instruction in November 2006. Prior to moving to Toledo, she worked as a building administrator for thirteen years in northeast Ohio. Ms. Manlove has earned a B.A. in Social Sciences from Hiram College and a M.A. in Educational Leadership from Kent State University, with additional certification coursework completed at Ashland University. Ms. Manlove serves as director for Federal Title funds at Ottawa Hills Schools. In that capacity, she has been responsible for submitting the district's CCIP, budgeting allocated funds, and providing oversight for the implementation of all CCIP-related funds. In her role at Ottawa Hills, she has directed the implementation of the new Academic Content Standards, the development of Student Learning Objectives, and the formulation of the Ohio Teacher Evaluation System policy and procedures for the school system. She directs professional development across all grade levels and subject areas, and oversees all testing programs. Recently, Ms. Manlove has worked with district stakeholders and resources such as the Dayton Regional STEM Center, Project Lead the Way, and Depco Robotics to develop a new Grades 7 through 12 STEM curriculum for Ottawa Hills Schools.

Mr. Shane Patacca, Director of Technology for Ottawa Hills Schools, will partner with Dr. Bill McCreary of the University of Toledo to provide oversight of all technology-related issues connected to the implementation of OWS. Mr. Shane Patacca has been the Director of Technology for Ottawa Hills Schools since the fall of 2013. Previous to that, he was District Technology Director at Ayersville Local Schools for five years. He has a B.S. in Elementary Education with a minor in Science from Ashland University, and a Master of Technology from Kent State University. During the 2013-2014 school year, Mr. Patacca has overseen the implementation of Ottawa Hills' one-to-one laptop program for Grades 7 through 12. He did the same for Ayersville during his time there. He has fourteen years of management experience and eight years of IT management experience. He is experienced with administering a technology budget, which includes managing equipment purchases, vendor negotiations, and refresh schedules. In his final year at Ayersville Schools, he negotiated over $70,000 in savings for the district. Mr. Patacca has extensive experience in configuring and managing multiple Macintosh OS X and Windows Servers, designing and installing an Enterprise Class, Wireless Network, and managing both wired and wireless networks. He was Project Coordinator for Ayersville's transition from eSIS to PowerSchool.
| Benjamin McMurray | Principal - Ottawa Hills Local Schools | Ottawa Hills High School Principal Ben McMurray will be charged with mobilizing students to take part in the various components of the OWS Grant. In this role, he will partner with Bill McCreary at the University of Toledo and his team members to ensure success around student participation. | Mr. McMurray has served as principal of Ottawa Hills Junior/Senior High School since 2009. Previous to that, he was a teacher and assistant principal at Plymouth-Canton Community Schools in Michigan. Mr. McMurray has a B.S. in History and Philosophy from Eastern Michigan University and a M.A. in Educational Administration from the University of Toledo. | In the past, Mr. McMurray has been administrative coordinator for the Novice Teacher Induction Program and middle school facilitator for a $1 million Teaching American History Grant. He has secured funding for various school programs through grants written for Pfizer, MEEMIC, Educational Excellence Foundation, and PCAC. At Ottawa Hills, he has overseen the growth of Agora, a week-long, non-traditional, workshop-based experience for students. He was part of the leadership team which directed the investigation and implementation of the one-to-one laptop program at the junior/senior high school. Under his direction, curricular offerings have grown at Ottawa Hills, including the addition of computer programming, Advanced Placement Statistics, Advanced Placement Biology, and Music Technology, to name a few. |