

KENTUCKY DEPARTMENT OF EDUCATION
American Recovery and Reinvestment Act of 2009 (ARRA)
Enhancing Education Through Technology
Competitive Application

District	<u>Todd County</u>	Eligible Amount	<u>\$45,000</u>
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I swear under oath, subject to penalty for perjury, that I am authorized to execute this document and assure that the attached application has been reviewed and approved for implementation by all stakeholders and the district will comply with all requirements, both technical and programmatic, pertaining to the Enhancing Education Through Technology grant. Failure to do so could impact future funding.

 Superintendent Signature

 Date

 Notary Public

 My commission expires

Notary Seal **(KDE requires that the original of this document has a Notary Seal)**

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Proposal Narrative

Todd County Schools serves 2,100 students in Todd County, a farming community of 12,000 people. Our county is mainly an agricultural county and due to recent loss of industry, our unemployment rate has reached 13.4%, topping the state average of 11%, our free and reduced percentage has risen to 61%, up from 50% five years ago and above the state average of 54%. Due to the lack of employment in Todd County, many families have moved decreasing our enrollment by 10% over the past 3 years. This has had an impact on our tax base, reducing revenue into the school district.

Needs Assessment Standards

As a district, we are committed to the use of technology as an educational tool. All five of our schools are connected together by fiber optic cabling, with a high speed connection to the Internet. In the midst of uncertain economic times, the district invested in two major technology implementations. In October 2008 we equipped all five sites with full wireless coverage. In our classrooms, media centers, gymnasiums as well as other non-traditional areas such as the football stadium, students are no longer tethered to a computer they are free to move around and still stay connected. In November 2008 we launched Project21c (P21c), which equipped all faculty and staff with Apple MacBooks, provided mobile carts with Apple MacBooks at each of elementary schools and the middle school and provided a full 1:1 implementation of MacBooks at our high school for all students in grades 9-12. We added to this project in August 2009 with the introduction of Apple iPod carts at our elementary schools, middle school and high school thereby providing necessary hardware for online engagement of all students.

However, professional development is the key to the success of P21c and any implementation. To date we have established a Vanguard Team, which has four representatives from each of the schools, including classroom teachers and media specialists. Five 2-day vanguard training dates have been set. Sessions are led by a trainer and the focus is on integration of technology into the curriculum. Each member brings back what they have learned to their home schools through local Professional Learning Communities (PLCs). These meet on our early release Fridays as well as during planning time, and before/after school time.

We established a Technology Integration Committee, with representation from all schools as well as District technology staff and other Central Office personnel. This group has been tasked with the challenge of finding ways to assist our teachers in integrating technology into their classrooms, identifying the needs, challenges and problems in our District and working together to resolve them. This committee will help to ensure the successful implementation of our district technology plan, P21c and this integration initiative.

Today's students have instant access to information through the Internet, have become just-in-time learners, and changed from consumers of content to creators and publishers. Due to these facts, traditional teaching and learning strategies have lost their effectiveness resulting in a lack of engagement and motivation to achieve. In order to re-engage our students and close the achievement gaps we have focused on three areas:

- Interactive classroom solutions – projectors and interactive whiteboards
- Increased Professional Development
- Hiring a Technology Coach

This plan will close the achievement gaps between elementary and secondary students, increase accountability and provide support for teachers.

Technology Need

We have found with walk through data, as well by reviewing our test data that although we have created a technology-rich environment we are not reaching specific populations. According to the 2009 NCLB Adequate Yearly Progress data, there is a need for more targeted focus on the diverse population of learners. As a district we continue to experience significant achievement gaps in reading/writing, science and social studies for students with disabilities, African-American students and free/reduced lunch students, specifically at the middle school and high school.

In November 2009 we assessed our 8th - 12th grade students' technology skills using SimpleAssessment Student Technology Proficiency online assessment that ties into the 2007 International Society for Technology in Education (ISTE) standards. Over 50% of students in grades 9th-12th, who have been participating in the 1:1 since January 2008, scored 70% or higher

whereas 8th grade students scored significantly lower. Less than 10% of the 8th graders scored 70% or higher.

Each elementary classroom is equipped with classroom computers, ceiling mounted projector, interactive board and tablet. At the middle school and high school, although they also have ceiling mounted projectors, they were our original pilot classrooms over five years ago and are in need of upgrading. Studies have found that especially in special needs areas, having projectors and integrated sound systems have increased student's participation in class. [Dr. Marzano, Evaluation Study of the Effects of Promethean ActivClassroom on Student Achievement] The level of student engagement at the elementary schools vs middle/high school is evident through walk through evaluations. Instruction at our middle/high school is still lecture driven with little student participation, whereas at the elementary schools learning is interactive with students actively engaged, collaborating and motivated.

The amount of technology at all schools has increased due to P21c, on average in grades K-8 the student to computer ratio is 2:1, students in grades 9-12 is 1:1. For staff the ratio is 1:2 with most teachers having a laptop and desktop computer. 90% of computers are less than 5 years old.

Academic Need

Significant gaps are found in our 2008-2009 Kentucky Core Content Testing (KCCT) in three areas: African-American, Free and Reduced students and Special Needs students. We are losing our African-American students by the end of the 6th grade, the gap between white students and African-American students more than triples by 8th grade and continues to grow throughout high school.

At the middle school level the 2009 NCLB data shows 45% of African-American students scored proficient or distinguished in reading as compared to 64.12% of white students. 26.67% of students with disabilities scored proficient or distinguished in reading as compared to 62% of total student population. In mathematics 27% of African-American students scored proficient or distinguished as compared to 64.89% of white students. 22.67% of students with disabilities

scored proficient or distinguished in mathematics as compared to 62.67% of total student population.

As evidenced in the 2008 KCCT data from the high school, only 44% of African-American students scored proficient or distinguished in reading compared to 73% of white students. 37% of students with disabilities scored proficient or distinguished in reading compared to 69% of the total student population. In 2009 KCCT data indicated a widening of the achievement gap between students with disabilities, only 5.26% scored proficient or distinguished compared to 55.32% of the total student population. In mathematics 33% of the students with disabilities scored proficient or distinguished compared to 43% of the total student population in 2008. In 2009 the data reflects a widening of the achievement gap, 19.05% of students with disabilities scored proficient or distinguished compared to 43.31% of the total student population. The 2008 KCCT data indicated that 25% of African-American students scored proficient or distinguished compared to 42% of white students. Spring 2009 data indicated a widening achievement gap between African-American and white students. Data shows that only 14.29% of African-American students reached proficient or distinguished compared to 48.62% of white students.

Program Implementation

Technology is not the end all, be all. It is a tool that can be used to differentiate instruction, address multiple intelligences and modalities. Teachers will continue to learn how to effectively integrate technology strategies into instruction.

The instructional focus for the 2009-2010 school year is Collaborate, Create, Distribute and Access (CCDA) and Challenge Based Learning (CBL). Students are using a wide array of technologies to collaborate, create content, distribute content and the means to access their product. With CBL students are identifying a problem/issue and finding a solution, but CBL takes the learning one step further with developing an action plan to resolve the problem/issue. Partnering CCDA and CBL allows students to become producers of content thus enhancing their understanding of concepts, as well as engaging reluctant students in real-world experiences. According to Dr. Marzano, the three most effective strategies for increasing student achievement are student-centered instruction, teaching critical thinking skills and hands on activities. Through

CCDA and CBL we are addressing these three areas, in addition they address the Inquiry and Research standards from the Kentucky Program of Studies. Embedding Inquiry and Research standards in all content areas will increase student's problem solving and higher order thinking skills. Mastery of these standards will increase student achievement and close achievement gaps. Technology standards will be implemented at each grade level to ensure technology literacy by 8th grade.

Teachers will be using ThinkLink assessment to address student's areas of weakness. They will take the information gathered there and work with students individually to develop goals and set benchmark dates to improve in these areas.

Interactive whiteboards add the essential visual learning element that increases student engagement. In the area of mathematics, the use of interactive whiteboards increase the understanding of mathematical concepts and skill by adding another dimension of learning modality. [Smart Technologies Case Study, Euclid Middle School] Studies also show that the use of interactive white boards increase the amount of instructional time in a classroom. [Smart Technologies Case Study, Mammoth-San Manuel Unified School District]

The use of word processing software helps students to become better writers, which increases their reading ability. Word processors also promote organizational and communication skills. Having access to tools such as spell check, built in dictionaries and thesauruses allows struggling writers to improve their vocabulary and expand on their writing styles. Students are able to produce, revise and edit writing more easily, thus making them more willing to write.

There continues to be a need to train district staff in research-based, rigorous and relevant instruction to meet the needs of diverse learners, and the implementation of technology based teaching and learning strategies. 75% of the Vanguard Team members who were surveyed said that although they were receiving ample training, having the time needed to assist their peers with infusing technology into their daily curriculum was limited. More than 60% of our teachers feel that they need more training on how to integrate technology into their daily lessons.

The District identified the need to recruit a consultant who will serve as a Technology Coach. He/She will mentor teachers, modeling technology infused lessons and have time to work with teachers to develop technology-infused lessons. The Technology Coach will work to improve teaching and learning strategies to encompass the needs of diverse learners and enable them to acquire the skills necessary to meet the demands of the 21st century.

The Technology Coach will work together with the Technology Integration Committee to establish an online repository of Technology Infused Lessons plans to serve as a resource for our teachers. The Technology Coach will spend one week at a time at each school, providing small group and one on one training and mentoring. Topics to be covered will be using interactive classroom equipment to increase student engagement, creating technology infused lessons that address multiple intelligences and learning styles, and intervention strategies to assist struggling learners.

The Technology Coach will also work with teachers to develop ways to help students be more organized using laptops, iPods, etc using functions such as the calendar, stickies, and file structure. He/She will work with the CIO/DTC and Technology Integration committee to develop lessons on how to be a responsible “digital citizen”.

Professional Development

Since the start of P21c we have established clear instructional technology goals. All professional development is coordinated around these goals ensuring that teachers will have the skills needed to reach them. Goals have been set for administration, teachers as well as students.

Administrative Goals

- Create and distribute one podcast per quarter that is relevant to our role
- Create a wiki/blog PLC for Administration Team; post and participate
- Update school websites quarterly
- Communicate/promote the successes of P21c

Teacher Goals

- Create and maintain an active website - updated monthly

- Create and share at least one technology infused lesson plan per quarter
- Create and distribute at least one podcast per quarter

Student Goals

- Demonstrate an understanding of Digital Citizenship
- Collaborate, create and distribute digital content

The use of Early Release Fridays (ERF) and Professional Learning Communities (PLC) has given us the ability to create a culture of professional growth, knowledge building, collaboration and sharing. ERF provide teachers with professional development time that would normally require a teacher to miss vital instructional time. ERF is used to target building-specific needs and requirements and serve as an opportunity to collaboratively learn and plan in our natural environment. PLCs allow teachers to take the knowledge and practices they have and then use them to share, demonstrate, and teach others equipping them with the same set of knowledge. PLCs are also a sounding board for ideas, concepts, and an avenue for collaborative planning.

The Vanguard team will continue to work with Apple Professional Development during their trainings in January, March and June 2010 on student use of technology in challenge based learning, infusing technology into lessons to meet the needs of diverse learners and incorporating technology into intervention strategies and Thoughtful Education strategies. Vanguard members will work with the Technology Coach to provide additional support and training to their staff at their home sites.

The Technology Coach will work one on one, or in small groups with teachers at each school to provide the support necessary to implement strategies they have learned. He/She will also model technology infused lessons in the classroom.

Teachers who are identified as successfully implementing the interactive classroom solutions in their classrooms will work with the Technology Coach to create podcasts which will be available through our online repository providing our teachers with the resource for professional

development. This group of teachers will also serve as mentor teachers to others at their home sites demonstrating and training on the use of interactive classroom solutions.

Teachers will learn to create lessons based on content, Dr. Marzano's effective classroom strategies and integration of technology tools to ensure rigorous and relevant instruction.

Leadership

The leadership in our district knows that they need to lead by example, and have embraced technology as part of their daily tasks. Administrators at the Central Office use email as the primary source of communication with teachers, community members, and parents. An administrative wiki/blog has been set up allowing district administrators the tool for collaboration on professional resources.

At the school level administrators also use email as a primary source of communication. They have also implemented a district-wide electronic lesson plan form that is used by all classroom teachers. Each lesson plan is submitted electronically via a drop box to the site administrator. All teachers use electronic grade and attendance posting. All administrators, at the school level and district level, use handheld computers (ie, iPaq or iPods) to complete eWalk – electronic classroom evaluations.

Shared calendars are used for scheduling school events and are promoted via our district's website and serves as a communication tool informing staff, family members and community of events occurring at each school.

We are using online surveys to conduct parent, teacher and student surveys. For the past three years we have hosted a multimedia presentation online for our mandated bloodborne pathogens material, all faculty and staff are required to review the presentation and complete an online survey annually.

Coordination of Activities

Through multiple funding sources the district has invested in several technology implementations. Project21c placed 926 MacBooks, 10 xservs and 440 iPod Touches throughout the district. Funding was secured to provide full wireless coverage on all campuses, as well as USF/eRate funding was used to upgrade our network equipment to ensure fast reliable network connections. Kentucky Education Network (KEN) is a state funded project that provides 25mb connection to the Internet for all our schools. Professional development is an integral part of all implementation projects, using Title IID as well as other funding sources we are able to provide a strong professional development plan. Our Vanguard Team is in its 2nd year and stipends and sub pay are funded through Enhancing Education Through Technology (EETT) funds.

Program Evaluation

Integration/Implementation Evaluation

- Teachers were assessed using Education Technology Profile (ETP) in November 2008 to establish baseline data at the beginning of Project21c. ETP assesses teachers' comfort with technology, their technology skills as well as level of implementation into their curriculum.
 - ETP will be repeated in May 2010 to determine growth
- Students were assessed using SimpleAssessment Student Technology Proficiency in November 2009 to establish baseline data. SimpleAssessment assesses basic computer skills as well as productivity software based on ISTE 2008 standards.
 - SimpleAssessment Student Technology Proficiency will be repeated in April 2010 to determine growth
- At the beginning of each Vanguard Team training session, discussions are held to determine any issues members are facing, concerns they may have as well as share in successes. These discussions allow teachers from each school time to share with their peers in the other schools problems, concerns or successes.
- Administrators will use eWalk (electronic evaluation software) to complete classroom observations. During these observations a teacher's level of technology usage and integration is evaluated.

Student Achievement Evaluation

High School - Reading

- 59% of African-American students will be proficient or distinguished in Reading by 2010
- 53% of students with disabilities will score proficient or distinguished in Reading by 2010

High School –Math

- 34% of African-American students will be proficient or distinguished in Math by 2010
- 33% of students with disabilities will score proficient or distinguished in Math by 2010

Middle School

- Increase the number of African-American students meeting proficiency standards by 46% in Reading and 32% in Math to meet AMO. This represents an additional increase of 20 students in Reading and 14 students in Math to reach proficiency.
- Raise overall number of students with disabilities who meet proficiency standards by 65% in Reading (31 students) and 49% in math (23 students) in order to meet AMO goal.

Program Sustainability

The initiatives of this grant are sustainable without grant funds. All hardware purchases will be maintained using district technology, KETS and general funding. Professional development has been incorporated into P21c since its implementation. Through the Vanguard Team model we are building a strong knowledge base in our members, which is shared to staff at their home sites. District professional development funding will provide continued training, travel to conferences and trainings to ensure the continuation.

**AMERICAN RECOVERY AND REINVESTMENT ACT
ENHANCING EDUCATION THROUGH TECHNOLOGY
COMPETITIVE GRANT**

District Name:

Todd County

BUDGET SUMMARY FORM

MUNIS CODE	Description	Grant Funds (11/01/09- 09/30/11)	Match (List source & amount)
0734	Projectors	\$3,000	
0734	Interactive whiteboards	\$6,000	
0734	Cabling, mounting hardware	\$25,000	
0335	Technology Coach – Consultant	\$5,000	
0810	Conference fees	\$1,000	
0580	Conference Travel	\$2,000	
0120	Teacher release time/substitute	\$3,000	
	Laptops & servers to support		\$346,686.37
	Wireless Network		\$42,071.48
	iPod carts		\$145,755.31
Total Direct Costs			\$533,513.16
0933	Indirect Coast (based on district's restricted indirect cost rate)		\$805.50
BUDGET TOTAL		\$45,000	\$534,318.66

Budget Narrative

In order to have interactive classroom equipment in all middle school and high school classrooms, 6 projectors and interactive whiteboards will be purchase for identified classrooms. Additional wiring and mounting equipment will be purchase for all middle school and high school classrooms making all classrooms up to standard.

A certified Technology Coach will be hired to complete several tasks:

- establish an online repository of Technology Infused Lessons plans
- spend time at each school, providing small group and one on one training and mentoring
- work with teachers to develop strong organizational skills using technology
- work with the CIO/DTC and Technology Integration committee to develop lessons on how to be a responsible “digital citizen”

Five staff members will be identified to attend the iSummit conference, presented by the Coalition of Lighthouse Schools in July 2010 in Atlanta, GA. Funds will be used to cover the cost of travel and registration for the conference.

Professional development will continue and funds will be used to pay teacher stipends and substitute coverage for teachers who are attending.

Performance Goals with Indicators
Accountability Measures
Enhancing Education Through Technology

Performance Goal 1: Student achievement, including technology literacy, of all students is improved through the use of technology.	
Performance Indicator 1.1 The percentage of students by the end of grade 8 that meet or exceed state standards for student literacy in technology.	
	Performance Target 1.1 The percentage of students by end of grade 8 that meet or exceed state standards for student literacy in technology will increase from 6 percent in baseline year 2009-2010 to above 10 percent in 2009-2010.
	The SimpleAssessment Student Technology Proficiency for MacOS/Microsoft Office 2003 exam was given to all 8th graders in November 2009. This exam assessed student understanding of the Macintosh operating system as well as the use of Microsoft Office 2004 applications. The assessment was administered online and results were reviewed by the CIO/DTC. Data was used to establish baseline data for students and to develop goals. All 8th graders will be given the same assessment in May 2010 to determine growth and use to develop goals for the 2010-2010 school year.

Performance Goals
Accountability Measures/Evaluation
Enhancing Education Through Technology

Performance Goal 2: Teachers effectively use technology and research-based instructional practices to support student learning.	
Performance Indicator 2.1 The percentage of teachers qualified to use technology for instruction.	
	Performance Target 2.1 The percentage of teachers, in the aggregate and in high poverty schools, who are qualified to use technology for instruction will increase from the baseline of 40 % in 2008-2009 to 60% in 2009-2010.
	Through Education Technology Profile (ETP) baseline data was gathered in November 2008 on teacher technology knowledge, comfort level and integration. Continual evaluations are done by district and site level administrators using eWalk for classroom observations. Vanguard Team members report back to the CIO/DTC status reports once a month on professional development, implementation and integration statuses for their home schools. At the end of 2009-2010 we will repeat the ETP to determine growth and areas of need. Using this data we will revise our professional development plan and set our teacher goals for the 2010-2011 school year.