Technology Plan
Bullitt County Public Schools
Shepherdsville, Kentucky

Creation Date: November 4, 2011
Plan Start Date: July 1, 2012
Plan Expiration Date: June 30, 2015
Modification Date: December 27, 2013

Acknowledgments

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Executive Summary

Despite its rural atmosphere, BCPS continues to be a leader in preparing students for an ever changing digital world. Closing achievement gaps is very dependent upon increasing technology literacy of both the teacher and student. Highly qualified teachers that blend the use of technology into their curriculum will directly impact the percentage of students who are technologically literate. We recognize the positive impact of parental involvement on a child's education and have accordingly established various means of resources and tools which provide anywhere / anytime access to BCPS learning.

The mission of the Bullitt County Technology Department is to provide the most effective and efficient information systems possible empowering the students, faculty, and staff to help meet our goals as a learning community. Bullitt County Schools has a robust and reliable infrastructure. All schools are connected by 80 miles of high speed fiber optic cable. We have a state of the art data center located at the Central Office, which is supported by a diesel-powered electric generator. We have increased our wireless saturation within our schools to promote mobile device integration and anytime, anywhere learning. In addition, 75% of our schools have deployed a "one to one" teacher mobile device to increase teacher productivity, communication, and lesson enhancements with technology integration. In order to increase communication with parents and the community, we have launched Infinite Campus School Messenger district-wide to keep everyone up-to-date with the most current news and information regarding district events. We strive to provide the latest technology and resources for the students, faculty and administration of our district. Increasing accessibility for all stakeholders continues to allow BCPS to provide the students with the most marketable technological skills to compete in a dynamic global economy.

In order for students to gain technological competencies and to be contributing citizens in an evolving digital society, they must receive an education that incorporates technology literacy at all levels as shown in the strategies listed below. Using teaching and learning standards, guided by the common core, as a foundational basis, all Bullitt County Public Schools technology learning goals and strategies describe activities that support academic achievement. Students will be immersed in authentic, engaging instructional practices and project based technologies. Engagement in the curriculum at all levels is enhanced when instructional technology is routinely incorporated into daily lessons.

Planning Process and Methodology

This plan was developed through a committee process involving stakeholders from across the district. Members of the Technology Department, including the CIO, LAN/WAN Engineer, and Technology Integration Specialists (TIS) gathered information to formulate this plan. Members of Central Office staff, the Special Education Department, and a representative group of principals, teachers, library media specialists, parents, and students reviewed the plan. Feedback was considered and added as appropriate. The plan will be evaluated and measured against the goals stated within to ensure successful implementation. This plan is reviewed and revised on an annual basis.

To achieve the goals and strategies outlined in this plan, educators must have varied opportunities for ongoing and continuous training in the integration of technology tools to ensure equity of learning and access for all. In order for teachers to keep pace with the digital natives within an ever-changing digital society, they must seamlessly implement technology into their daily instructional practices. The BCPS strategies describe activities that improve the capacity of all teachers in the schools served by the district to integrate technology effectively into curriculum and instruction.

In accordance to the Kentucky Technology Program of Studies and Common Core Standards, our strategies for BCPS students and teachers will foster a community of technology-rich citizenry. Throughout the implementation of this district technology plan, the Technology Integration Specialists will provide teachers with technical and curriculum support, fostering a technology-rich learning environment. They will utilize the technologies the teacher is currently accustomed to while looking for integration points, and promoting the teachers' rationale and reflection about future technology implementation practices. Various strategies and activities that the TIS team will support throughout this integration process will help move staff members to a higher performance level (as measured by Kentucky Teacher Technology Standard 6) and students to technological proficiency (as measured by the assessments embedded with the Common Core and aligned to the ISTE Student Standards.

Discussion of the expiring plan in terms of the criteria listed is demonstrated in the chart below:

2011-2013 Goals:	Goal Met / Not Met	Goal Relevant	Needs Emerged due to Results
Curriculum and Instructional Goals: 1. Instructional staff will improve technology awareness and consistently implement technology into their daily instructional practices.	Met – ongoing	Yes	This continues to be a school and teacher goal. With increased accessibility to devices and tools, teachers and schools are extremely dependent on technology being an essential teaching tool.
Student Technology Literacy: 1. Increase technology use in the classroom to improve student engagement and student achievement.	Met - ongoing	Yes	We continue to improve this area throughout the district by relaxing our internet filters, allowing BYOD's, and encouraging differentiated learning to take place while incorporating technology.
Staff Training / Professional Development Goals: 1. Schools will have a technology plan that aligns with and adheres to the district technology plan (goals and strategies).	Met - ongoing	Yes	Schools are continuing to annually update their school technology plans. By schools providing their individualized school plans that align to our district plan, this allows our district to have a "technological" vision for future emerging technology devices, tools, trainings, etc.
Staff Training / Professional Development Goals: 2. Job-embedded and program specific professional development will be provided to district and school leadership by the TIS team on an as needed basis through one-on-one meetings or large group presentations.	Met - ongoing	Yes	Our instructional technology usage has increased and continues to be a daily necessity. Realizing that student engagement and achievement rely heavily on true technology integration and implementation, teachers are continually increasing their technological proficiency through professional development opportunities.
Technology Goals: 1. Improve reliability and accessibility of information technology for the students, staff, and other stakeholders.	Met - ongoing	Yes	We continue to improve the reliability of our infrastructure to accommodate growing technology needs and emerging devices that provide accessibility to all of our stakeholders.
Technology Goals: 2. Improve communications between the school, parents, and the community.	Met - ongoing	Yes	Communication is a large part of our district policies. BCPS provides various communication opportunities through social networking sites, websites, blogs, messengers, and other media outlets.
Technology Goals: 3. Increase technology use in the classroom to improve student engagement and student achievement.	Met - ongoing	Yes	Technology literacy is difficult to assess because it is continually changing and growing as devices, tools, and needs merge with their educational goals. Our students are technologically literate on an individual basis since there is no real assessment tool that can determine this for a "whole" group.

Current Technology and Resources

While we have expanded our technology resources in recent years, many challenges still remain. Funding has become a barrier for technology as it has for all departments in the district. In striving for a 5-year replacement cycle for computers, the reality is that funding is insufficient. We continue to seek grants and new funding sources to provide the foundation for our continued success. Over the past several years, we have seen our network usage grow significantly. Many services were unavailable and others had to be scaled back to provide the needed bandwidth for only essential educational resources. We received additional internet bandwidth from the office of Knowledge, Information and Data Services (KIDS) in the spring of 2012 and performance improved significantly. With the continued implementation of BYOD, internet usage continues to grow and ongoing monitoring of educational use of our internet resources will occur accordingly. We are expecting to receive additional bandwidth prior to implementing this plan, and hope this will relieve some of the bandwidth bottlenecks.

Despite the barriers of funding, we have made tremendous gains over the past 5 years. We have 3 Technology Integration Specialists, one network engineer, 3 computer technicians and 2 support technicians that serve the twenty-four schools in our district. We continue to meet high standards with the staff we have in place; however more Technology Integration Specialists would enable us to adequately serve the technology integration needs of all stakeholders.

The current Technology Integration Specialists (TIS) provide job-embedded district-wide technology professional development for teachers. The TIS Team works one-on-one with teachers and through monthly district-wide training events. The TIS's also work with schools and participate in PLC's and Early Release Days to further support the teachers throughout the district.

In order to increase accessibility for students, schools are purchasing and incorporating various mobile devices for student use. The initial focus was to fulfill an increased mobile learning demand; however, these Mobile Learning devices (MLD) have become an integral part of daily instruction. In addition, schools have purchased one to one mobile devices for teachers to increase teacher productivity, communication, and lesson enhancements with technology integration.

We continue to allow the use of personal devices (BYOD) in the classroom to increase the accessibility to technology for student learning. Many of our schools are using computer labs and mobile learning labs for formative testing, which has reduced the number of available computers for students, so allowing personal devices has provided an additional resource for research and other online learning activities.

Having full wireless access at all schools has enhanced instruction through mobile computing. Our wireless infrastructure is continuing to be upgraded in order to meet the demands of increased mobile technology. Many of our teachers are embracing new technologies and resources which will continue to benefit instruction. We are fortunate to have a Superintendent and Board of Education that supports the use of

technology. Thanks to their support, we have been able to make continued advances with technology that the teachers and students now utilize.

Some of our current resources are:

- IPTV (VBrick) System serving all district schools

- Distance Learning through Video Conference Systems and Microsoft Lync

- 100% Teacher Technology Workstations

- 3:1 (or better) student to computer ratio (classroom and computer labs)

- Job-embedded and after hours professional development opportunities

- On-demand training materials (technology website)

- Intelligent Classrooms (Eighty-five percent of district classrooms are intelligent classrooms, equipped with a projector, interactive whiteboard, classroom response system, document camera, and voice enhancement system.)

- Use of technology for RTI

- Differentiated Instruction using Technology

- Online Learning / e-Learning opportunities

- Assistive Technology

- State-of-the-art Security System for most schools

- Building Access Control System

- Centralized HVAC Controls and Utility Management

- Voice-over IP Phone Systems

- Computer Labs at all district schools

- Mobile Wireless Coverage for all schools

- Personal Devices are allowed to be used during the instructional day for educational purposes

- Digital Citizenship Resources; integration into curriculum

- ePlan for online lesson planning, sharing, and monitoring

- Communication Resources – Infinite Campus School Messenger

- Cloud Computing through Bullitt Cloud

- Digital Signage

- n-Computing

Curriculum and Instructional Integration Goals

Goal 1

Instructional staff will improve technology awareness and consistently implement technology into their daily instructional practices.

Action Plan: Projects/Activities

Project/Activity	Instructional Outcome	Evaluation	Timeline	Person(s) Responsible	Funding Source
Explore keyboarding opportunities and implement through district software purchase for all students by the time they enter the secondary level.	Students will be prepared for using computers for writing, research and project based skills that align to the Common Core Standards.	Learning Plans and Curriculum Maps Software Reporting through online programs and TypingPal School Technology Plans	Ongoing	Assistant Superintendent for Student Learning, School Leadership	District Funds, School Funds (KETS?)
Facilitate the continued implementation of components for Interactive Classrooms.	Increased Student Engagement.	Classroom Observations	Ongoing	CIO / DTC, TIS, Administrators, and Instructional Staff	KETS, Capital Outlay, District Funds
Implement video conferencing opportunities (i.e. MS Lync) to better support and facilitate technology awareness and daily instruction tools.	Increased student engagement and lesson integration opportunities beyond the classroom walls.	Classroom Observations	Ongoing	CIO / DTC, TIS, Administrators, and Instructional Staff	District Funds, KDE Shared Services
Use of streaming instructional video will continue to be monitored and implemented.	Increased student achievement through engaging classroom instruction that is rich in technology. Increased student engagement and support differentiated instruction.	Student Products Usage Reports Learning Plans Classroom Observations	Ongoing	Instructional Staff, TIS, Administrators	KETS, District Funds, KDE Shared Services

Project/Activity	Instructional Outcome	Evaluation	Timeline	Person(s) Responsible	Funding Source
We will put technology tools in the hands of the students (BYOD and exploration of 1:1), tailoring curriculum delivery to be a more student centered learning environment.	Students will become active rather than passive learners.	Administrative observations and evaluations made in the usual course of the school's activities.	Ongoing	School Administrators	Fund 1, SBDM Funds, Grant Funds
Unbridled Learning – Technology integration strategies will incorporate Common Core Standards with professional development training aligned.	Increased Student Engagement and differentiated instruction to meet individual student needs. Increase Student Proficiency in 21st Century Skills and differentiated instructional practices.	Student Products Classroom Observations Professional Development Resources and Attendance Reports	Ongoing	Instructional Staff, TIS, Administrators	District Funds
Continue to provide professional development training on approved software, web applications, web pages, blogging, mobile devices, and various instructional equipment.	Instructional Staff is better prepared to integrate applications into instruction, while increasing student and parental accessibility, communication, and involvement.	Instructional Plans, TIS Reports, Professional Development Attendance, Usage Reports, Monitoring by District Leadership	Ongoing	Instructional Staff, TIS, Assistive Technology (AT), Administrators	District Funds
Expand and explore Computer Informational Technology program opportunities (e.g. Cisco CCNA, Microsoft, game design, programming) available to all district high school students.	Develops critical thinking while preparing for the technical work-force, career readiness, or furthering educational opportunities.	Achieved Certifications, Developmental Progress through Formative Assessments	Ongoing	Instructional Staff, TIS, Administrators	District Funds, Perkins, Local School Funds

Project/Activity	Instructional Outcome	Evaluation	Timeline	Person(s) Responsible	Funding Source
Online programming delivered via wireless and hardwired clients, both district and student-owned, will allow students to follow programs tailored especially to meet their individual needs; e.g. (but not limited to) Compass Learning, Apex, Lync, etc.	Students can engage in credit recovery or take courses not offered in the standard curriculum at without the usual restrictions created by a standard schedule.	Enrollment in non-traditional (i.e. independent, online learning) courses, and Reporting.	Ongoing	CIO/DTC, Instructional staff, Asst. Supt. for Learning, School administrators	District Funds, Grants and school funds
Implement mobile devices (e.g. but not limited to Nooks, smart phones, iPads, iPods, or Kindles) into daily lessons as the curriculum provides opportunities.	Develop a real world learning connection and student engagement that will encourage proper utilization and use of available technology.	Lesson plans, observations, walkthroughs, surveys, student achievement	Ongoing	CIO/DTC, Instructional staff, TIS, AT, STLP, STC, Asst. Supt. for Learning, School Administrators	KETS Funds, District Funds, Grants and school funds
Incorporate technology rich curriculum and tools into the Career Readiness Centers.	Develop student engagement that will encourage the proper use of available technology.	Observations, walkthroughs, surveys, student achievement	Ongoing	Assistant Supt. for Learning, Director of Secondary Education, Instructional Staff, DTC/CIO	District Funds, Grant Funds and school funds

Curriculum and Instructional Integration Goals – Evaluation Questions and Responses

1) Development and utilization of innovative strategies for the delivery of specialized or rigorous academic courses and curricula through the use of technology, including distance learning technologies.

   Implemented a technology component that consisted of programming opportunities (Cisco CCNA, Microsoft, Game Design, Adobe, and Computer Programming) to help encourage the Career and College Readiness in the area of technology as well as give students a differentiated (specialized) learning path. Distance learning technologies have also been implemented throughout the district with use of video conferencing equipment that allows for students and teachers to reach beyond the classroom walls and possible limitations in district resources.

2) How these goals for using advanced technology to improve student academic achievement aligned with the Kentucky Core Academic Standards and goals for College/Career Readiness?

   Our students will be prepared for using technology tools and resources for writing, research, and project-based skills that align to the Common Core Standards and meet the goals for College/Career Readiness because our district academic goals align to 21st century learning and achievement. By increasing technology access and usage, we are developing critical thinking skills while preparing our students for the technical work force and possible educational opportunities that require a high level of technological expertise.

3) Our evaluation process will enable the district to monitor progress toward the specified goals and make mid-course corrections in response to new developments and opportunities as they arise. Indicators and accountability measures will be used to evaluate the extent to which activities are effective in integrating technology into the curricula and instruction and enable students to meet challenging state academic standards.

   Detailed learning plans that follow district curriculum maps are used to document progress. These plans must adhere to Common Core Standards and evidence such as student work, assessment, and items posted on their individual websites must demonstrate mastery of each of the KCAS. Digital projects are a huge component in the Common Core Standards and true integration of technology must be evident when observations take place. Career certification documentation is also an indicator of the district's progress toward raising student and teacher academic achievements.

4) In our evaluation process, we will use data from indicators listed above.

   If goals are not met then a plan will be created to meet the remaining goals. Data obtained from these goals will come from observations, academic achievements, and technology planning and usage. This data will be shared with appropriate personnel and stakeholders as needs arise.

Student Technology Literacy Goals

Goal 1

Increase technology use in the classroom to improve student engagement and student achievement.

Action Plan: Strategies/Activities

Strategy/Activity	Instructional Outcome	Evaluation	Timeline	Person(s) Responsible	Funding Source
Continue to facilitate and explore the migration of all district software to a platform where students can access district educational software in a Mobile Learning Environment (MLE) or n-Computing Virtual lab. This further enhances our anytime, anywhere learning initiative and helps accommodate the learning styles of our students using technology.	To provide anytime, anywhere learning for our students across multiple mobile learning devices.	Observations Surveys Logs	Ongoing	CIO/DTC STC's TIS AT Principals Teachers	District Funds
Continue to support the use of various cloud based storage tools to further support the anytime, anywhere learning initiative. (E.g. but not limited to Bullitt Cloud, MS Collaborative Tools, Google Docs, Dropbox)	To provide anytime, anywhere access to students' work.	Observations Logs Surveys	Ongoing	CIO/DTC STC's TIS AT Principals Teachers	District Funds

Strategy/Activity	Instructional Outcome	Evaluation	Timeline	Person(s) Responsible	Funding Source
Support the use of approved instructional / educational software to meet the individual needs of teachers / students. Ensuring all new software purchases meet the MLE and copyright criteria.	Increase Student Proficiency in 21st Century Skills and differentiated instruction practices.	Student Products, Student Usage Assessment, RTI Reports	Ongoing	Instructional Staff, TIS, AT, Administrators, RTI Coordinator	District Funds
Continue to support the Student Technology Leadership Program (STLP).	Increased student engagement, involvement, motivation, and collaborative techniques.	Participation surveys, regional and state competition participation, and student products.	Ongoing	Instructional Staff, TIS, STLP Leaders, LMS, Administrators	District Funds when available, and Local School Funds
Incorporate education for all students on Digital Citizenship. This will include the following nine components: (Digital Commerce, Digital Law, Digital Health and Wellness, Digital Rights and Responsibilities, Digital Etiquette, Digital Security, Digital Literacy, Digital Communications, Digital Access). Also see the District Acceptable Use Policy (AUP).	Increased incorporation and self-monitoring of digital rights and responsibilities to become productive and responsible users of digital technologies (Ribble, 2007).	Classroom Observations and formative assessments, iSafe Curriculum reports, Lesson Plans, Aligned Document for Digital Citizenship Standards and Lesson Planning	Ongoing	Instructional Staff, TIS, LMS, Administrators	District Funds / Curriculum Department

Strategy/Activity	Instructional Outcome	Evaluation	Timeline	Person(s) Responsible	Funding Source
Provide Internet filtering to restrict access and to maintain compliance with the Children's Internet Protection Act (CIPA). – e.g. Use of Lightspeed Rocket for filtering and individually training students on how to activate safe search tools in any environment.	By encouraging students to become responsible users of the Internet, our goal is to limit internet filtering to teach and enforce appropriate use, while continuing to block inappropriate material under CIPA.	Customized Internet reporting tools distributed to all school STC's and Principals for monitoring of their school's internet activity, TIS job-embedded PD on safe searching.	Ongoing	DTC, School Technology Coordinators and School Leadership	District Funds,
Digital Citizenship is covered during library orientation at the beginning of each school year, embedded in the classroom instruction curriculum throughout the year, and covered specifically during e-mail training provided to students.	Students will become safe, life-time users of digital technology and understand the ethical issues involved in its use (e.g. piracy, copyright infringement, plagiarism, bullying, privacy, etc.).	Proxy reports, discipline incidents accumulated in IC, direct observation and anecdotal evidence provided by staff.	Fall Semester	Instructional Staff, TIS, STLP Leaders, LMS, Administrators	District Funds
The Library Media Specialists will incorporate the Digital Citizenship elements through instruction with each class at the beginning of the year and consistently throughout the year. These will also be integrated into teacher lessons using technological tools while promoting the digital citizenship vocabulary.	Prepare students to be safe and successful citizens in a digital society.	Documented in lesson plans, Aligned Document for Digital Citizenship Standards and Lesson Planning	Ongoing	Instructional Staff, TIS, STLP Leaders, LMS, Administrators	District Funds

Student Technology Literacy Goals – Evaluation Questions and Responses

1) How the steps and activities being implemented assure that students are meeting the expectation of technology literacy by the 8th grade.

    We are supporting, facilitating, and implementing learning opportunities such as digital citizenship, STLP, and bring your own device (mobile learning programs) for individualized and differentiated learning. Technology literacy by 8th grade will be achieved through the continuous implementation and integration of technology in the Common Core Standards.

2) How the goals support the enhancement of students' 21st Century Skills of critical thinking, communication, collaboration and creativity.

    These goals support the 21st Century Skills because they provide anywhere, any time learning for our students across multiple mobile learning platforms and devices. Increased incorporation of technology critical thinking, communication, collaboration, and creativity skills into learning plans and aligned with the common core standards help develop a technologically literate student.

3) The instructional materials or electronic resources needed to support strategies.

    Instructional resources are sent as needed by the Technology Integration Specialists as well as monthly PD trainings held that specifically align to technology embedded standards in the Common Core. Documentation and accessible resources can be found on the District Technology website (http://ww2.bullittschools.org/technology).

4) The process for gathering and using data from indicators listed above and what actions will be taken if expected results are not met. With whom will the data be shared?

    Student products, RTI reports, IRIS reports, anecdotal evidence, observations, and STLP competition participation are areas where technology documentation is represented. If some of these goals are not met, then a plan will be created to meet the remaining goals. Data obtained from these goals will come from observations, academic achievements, and technology planning and usage. This data will be shared with appropriate personnel and stakeholders as needs arise.

Staff Training/Professional Development Goals

Goal 1

Schools will have a technology plan that aligns with and adheres to the district technology plan (goals and strategies).

Action Plan: Strategies/Activities

Strategy/Activity	Instructional Outcome	Evaluation	Timeline	Person(s) Responsible	Funding Source
School Leadership will develop a school technology plan (using the district provided template) that will align with and support the district technology plan. This plan must be SBDM approved.	Provide a road map to guide the schools for future technology purchases, professional development planning, instructional support, and student learning targets.	Completed School Technology Plan approved by District Technology Coordinator and District Superintendent or Designee	Rough Draft / Revisions due by September 1st of the current school year and Final Plan due by December 1st of current (upcoming) school year	CIO/DTC, School SBDM Council, School Leadership, District Superintendent or Designee	District Funds and local school funds
School technology purchases will adhere to school or district technology plans by providing an instructional need, ongoing professional development for full integration, and a plan for technological support	New technology hardware and software is fully integrated into instructional practices and used regularly to meet learning goals.	Evaluating purchases to show effective and efficient use of technology integration tools, Usage Surveys, Professional Observations	Ongoing	CIO/DTC, TIS, Administrators, Instructional Staff	KETS, District Funds and local school funds

Goal 2

Job-embedded and program specific professional development will be provided to district and school leadership by the TIS team on an as needed basis through one-on-one meetings or large group presentations.

Action Plan: Strategies/Activities

Strategy/Activity	Instructional Outcome	Evaluation	Timeline	Person(s) Responsible	Funding Source
Review the performance and effectiveness of the district Technology Integration Specialists (TIS).	Increased technology integration in instructional practices, student engagement, and job-embedded professional development to increase instructional staff proficiency.	Professional Development Attendance, Evaluation Surveys, Professional Observations, and TIS Reports	Ongoing	CIO/DTC, TIS, Administrators, Instructional Staff	KETS, District Funds
Provide regular technology related professional development opportunities throughout the school year that align with Common Core Standards and/or Kentucky Teacher Technology Standard 6 for optimal teacher performance.	Professional development to increase instructional staff and administrator technology proficiency.	Professional Development Attendance, Evaluation Surveys, Professional Observations, and TIS Reports	Ongoing	CIO/DTC, TIS, AT, Administrators, Instructional Staff	District Funds, and SBDM funds
By providing new technology hardware and software to schools, the schools will be required to incorporate training and ongoing support from the district (TIS's).	New technology hardware and software is fully integrated into instructional practices and used regularly to meet learning goals.	Professional Development Attendance, Usage Surveys, Evaluation Surveys, Professional Observations, and TIS Reports	Ongoing	CIO/DTC, TIS, Administrators, Instructional Staff	District Funds, and SBDM funds

Staff Training/Professional Development Goals – Evaluation Questions and Response

1) What is the current ability level of staff to utilize technology and the increases in competencies sought through professional development activities?

   Staff members that have intelligent classroom components are extremely proficient when using for instructional purposes. Technology Integration Specialists spend many hours with teachers to bring them up to instructional proficiency. TIS's also spend time with the teachers modeling tools and resources that align with and meet the embedded technology components in the Common Core Standards. Monthly technology professional development opportunities are made available to staff members that need and want additional training, resources, and tools to help meet the technology and Common Core Standards.

2) What are the topic(s) and nature of the training to be made available to staff?

   All technology trainings are aligned to Common Core Standards, intelligent classroom instructional integration, and differentiated tools that will meet the individual teacher and student needs.

3) What methods will be used to provide the training (e.g. just in time, after school/summer workshops, train-the-trainer, off-site training, conferences, etc.) and the procedures to document training?

   Trainings are provided through once a month and after school PD's, summer workshops, train-the-trainer, job-embedded, and one-to-one formats. Training is documented through Wikispace training sites, the technology website, PD sign-up site, sign-in sheet on site, and a certificate of completion.

4) The connections between training to be offered and the curriculum goals of the district will be?

   As stated in #2 above, all technology trainings are aligned to Common Core Standards and/or Kentucky Teacher Technology Standard 6, intelligent classroom instructional integration, and differentiated tools that will meet individual teacher and student needs.

5) What are the training opportunities for technical staff?

   Our technical staff is mainly self-trained; however trainings take place on an "as needed" basis with new or emerging technology developments.

6) What are the indicators and accountability measures that will be used to evaluate the extent, to which PD activities are effective in promoting integration of technology into the curricula and instruction, enhance the ability of teachers to teach, and enable students to meet challenging state academic standards?

   As stated in #1, staff members that have intelligent classroom components are extremely proficient when using for instructional purposes. Technology Integration Specialists spend many hours with teachers to bring them up to instructional proficiency. TIS's also spend time with the teachers modeling tools and resources that align with and meet the embedded technology components in the Common Core Standards. Monthly technology professional development opportunities are made available to staff members that need and want additional training, resources, and tools to help meet the technology and Common Core Standards.

   As stated in #2 above, all technology trainings are aligned to Common Core Standards, intelligent classroom instructional integration, and differentiated tools that will meet the individual teacher and student needs.

Technology Goals

Bullitt County Public Schools will provide students the technological skills to compete in a global society. For students to gain technological competencies and to be contributing citizens in an ever-changing society, they must receive an education that incorporates technology literacy at all levels. Educators must have continual training opportunities in the integration of technology tools to ensure equity of learning and access for all.

Goal 1
Improve reliability and accessibility of information technology for the students, staff and other stakeholders.

Action Plan: Strategies/Activities

Strategy/Activity	Instructional Outcome	Evaluation	Timeline	Person(s) Responsible	Funding Source
Continue to evaluate tablets and mobile devices to determine the performance, functionality, and cost effectiveness of possibility meeting a 1:1 initiative	To provide more technology for students. In addition, we want to allow students to complete their assignments and to perform research anywhere.	Observations and feedback forms	Ongoing	CIO/DTC TIS Principals	KETS, SBDM funds
Continue to evaluate the latest Instructional Devices to determine the appropriate applications and tools for use within the district.	Provide appropriate assistive technology and training to students and staff to support students with disabilities and meet their individual learning styles.	Observations Feedback forms	Ongoing	CIO/DTC, AT	KETS, District Funds, SBDM funds
Continue to expand and facilitate the Bring Your Own Device (BYOD) initiative.	To provide more technology for students. In addition, we want to allow students to complete their assignments and to perform research anywhere.	Observations Feedback Forms Student Survey Learning Plans	Ongoing	CIO/DTC TIS	District Funds, student provided technology

Strategy/Activity	Instructional Outcome	Evaluation	Timeline	Person(s) Responsible	Funding Source
Continue to support the use of various cloud based storage tools to further support the anytime, anywhere learning initiative. (e.g. but not limited to Bullitt Cloud, MS Collaborative Tools, Google Docs, Dropbox)	Facilitate the ease of mobile access and reduce resources needed for district computers.	Research and testing with various methods of cloud and terminal access devices	Ongoing	CIO/DTC	KETS, District Funds,
Strive to become more energy efficient in the use of technology. GREEN IT	Purchase devices that are Energy Star compliant and reduce the district carbon footprint.	Purchase Orders, Utility Reports	Ongoing	CIO/DTC-District Energy Auditor	District Funds, KETS, IDEA and SBDM Funds
Energy savings can be realized by following guidelines issued by the district's energy coordinator and increase diligence in turning off equipment when not in use, particularly LCD projectors.	Money saved can be utilized district-wide to provide increased availability of productivity tools to teachers and students.	Monitoring monthly energy consumption.	Ongoing	CIO-DTC/Director Building and Grounds, School Leadership, Safe Schools Director	District Funds, Capital Outlay
Use of Energy WatchDog and/or Green Team programs to monitor computer labs. Send reminders by email prior to long breaks.	To provide students with hands-on experience in evaluating and monitoring energy usage.	Data sheets provided by energy watchdog program	Ongoing	School level energy teams, STLP	No Funds

Strategy/Activity	Instructional Outcome	Evaluation	Timeline	Person(s) Responsible	Funding Source
Use the energy team and visual energy usage reporting to educate and remind staff and students to be energy efficient.	Expand the life of the technological devices.	District Energy Team	Monthly	School level energy instructor	No Funds
Support continual replacement of core infrastructure hardware (e.g. switches/GBICS/Ethernet cabling) with the latest technology.	Reliable network infrastructure to meet current and future demands.	Network Reports	Ongoing	CIO/DTC, LAN/WAN Engineer	KETS, District Funds
Support continued expansion of our wireless network by expanding our wireless infrastructure with saturated coverage for all district schools. This includes upgrading to the newly ratified "N" wireless standard. To allow use of personal devices by staff and students.	Increased network speed for existing and new mobile devices. Students and teachers will benefit from mobile access to instructional tools and materials. Increased capacity will improve the performance of wireless devices for the district Bring Your Own Device initiative.	Network Reports Faculty, administrative and staff observation of the presence and utilization of such devices.	Ongoing	CIO/DTC, LAN/WAN Engineer	KETS, District Funds
Continue replacement of aging printers with KETS approved laser printers and explore the use of wireless printers for mobile devices.	Improve Reliability in Printing and Reduce cost of consumables.	Purchase Order Requests	Ongoing	CIO/DTC	KETS, District Funds, SBDM Funds

Strategy/Activity	Instructional Outcome	Evaluation	Timeline	Person(s) Responsible	Funding Source
Maintenance for the fiber optic network and related components, computers, servers and other hardware.	Reliable network infrastructure to meet current and future demands.	Network Reports	Ongoing	CIO/DTC, LAN/WAN Engineer	District Funds
If funding is available, replace or upgrade data center air conditioning system.	Reliable network infrastructure to meet current and future cooling demands.	Purchase Order Requests, Maintenance Work Order Reports	Ongoing	CIO/DTC, LAN/WAN Engineer	District Funds and Capital Outlay
Implement distance learning opportunities utilizing various video conferencing systems (i.e. MS Lync, Skype).	Increase Curricula opportunities for all stakeholders.	Classroom Observations and Usage Survey	Ongoing	CIO/DTC, TIS, Administrators	KETS, E-rate, District, Grants and SBDM Funds
Doors at schools shall remain locked at all times with a means for identifying visitors and control of door locks by staff personnel. All visitors shall check-in at the main school entrance according to district/school policy.	Ensures safety of students and staff.	Incident reports, log of people entering building, and access control reporting.	Ongoing	CIO/DTC, TIS, Administrators	KETS, Capital Outlay, District Funds, SBDM Funds
Require school staff to wear ID badges, and enable those badges and/or key fobs to allow teachers to enter designated entrances.	To maintain school safety	Logs of access control system and observation	Ongoing	CIO/Maintenance Department, School safety and district administration	Local Funds, Grant Funds

Strategy/Activity	Instructional Outcome	Evaluation	Timeline	Person(s) Responsible	Funding Source
Install video cameras and hardware peripherals to allow school staff to monitor school premises.	To maintain school safety	Incident reports and observation	Ongoing	CIO/Maintenance Department, School safety and district administration	Local Funds, Grant Funds
Install emergency call buttons to alert police to intruders.	Ensures safety of students and staff	Incident reports and observation	Ongoing	CIO/Maintenance Dept., School safety and district admins	Local Funds, Grant Funds
Maintain Microsoft Campus Agreement for the latest version of MS Office and other Microsoft products for district.	Increase access to the latest instructional resources.	Deployment and updates by the district	Ongoing	CIO/DTC, LAN/WAN Engineer	District Funds
Continually evaluate the needs for other software, upgrades and additions as the needs arise.	Increase access to the latest instructional resources.	PO Requests, Software Request Forms, and Collaboration with District Leadership	Ongoing	CIO/DTC, TIS, Administrators, Instructional Staff	KETS, District Funds, SBDM Funds
Continued access to high speed fiber optic service for Nichols Elementary School and Spring Meadows with a minimum of 100MB connectivity. Note: Contract with Insight Communications approved 1-29-08 and extended effective January 30th, 2013 for Nichols. Spring Meadows effective February 25th, 2013.	Equity of district resources and accessibility.	Network Bandwidth Reports	Ongoing	CIO/DTC, LAN/WAN Engineer	District Funds / E-Rate

Strategy/Activity	Instructional Outcome	Evaluation	Timeline	Person(s) Responsible	Funding Source
Strive for standardization of district software to a web based platform. All new software is encouraged to be accessible using standard browsers. In addition, software is recommended to be accessible and compatible with the most popular desktop and mobile devices.	By using a standardized platform, it will reduce the frustrations of client based software, and all devices will have access to software for students. Software implementation will be dependent on district hardware capabilities.	Purchase Orders, Software inventory reports. Staff monitoring of the efficiency with which existing software can be utilized by teachers and students.	Ongoing	CIO/DTC TIS Assist. Supt. Of Student Learning LAN/WAN Engineer	District Funds, Perkins, KETS, SBDM funds
Maintain agreement with server provider for Internet Filtering device.	Internet Safety for All Stakeholders.	Various Reporting Sources	Ongoing	CIO/DTC, LAN/WAN Engineer	District Funds
Support and promote state-mandated curriculum, assessment, and instruction resource programs (e.g. CIITS, ASSIST, Infinite Campus, End of Course Assessments, ACT, K-PREP).	Communicate and educate district users on proper implementation of these state initiatives to meet the KDE requirements.	Professional Development Attendance Logs, successful submission of data to reporting agencies	Ongoing	School Information Systems Coordinator, District Administrators, TIS, Instructional Coaches, Counselors	Title I and District Funds
Support approved computer lab monitoring software for labs at district schools.	Increased Student Engagement, Monitor Internet Safety, and allows interactivity with students.	Classroom Observations and Usage Survey	Ongoing	CIO/DTC, TIS, Administrators, Instructional Staff	District Funds, SBDM Funds

Goal 2

Improve communications between the school, parents and the community.

Action Plan: Strategies/Activities

Strategy/Activity	Instructional Outcome	Evaluation	Timeline	Person(s) Responsible	Funding Source
Promote electronic communication with parents and the community via district, school and teacher websites, BCPS e-news, e-mail, school signs, social network outlets, and the Infinite Campus School Messenger with Shoutpoint dial services.	Increased Parental Accessibility, Communication, and Involvement. Students achieve at a higher level when parents have a greater awareness of the educational process and can appropriately support it.	E-News Archives, Usage Surveys, E-News Subscription Database, Usage Reports, Email Log, School/Class Websites	Ongoing	CIO/DTC, TIS, Administrators, Instructional Staff, LAN/WAN Engineer	District Funds, SBDM Funds
Analyzing our telephone resources to maintain effective and immediate communications	Increase communication and access for all stakeholders.	Phone Usage Reports	Ongoing	CIO/DTC, LAN Engineer, Telephone provider, District Telephony tech	KETS, District Funds, and E-Rate
Promote and support the continued use of mobile data storage, anytime / anywhere learning, and eLearning (e.g. Moodle, Edmodo, Schoology)	Allow all stakeholders access to district resources to improve instructional outcomes.	Usage Surveys, Data Center Monitoring Tools	Ongoing	CIO/DTC, LAN/WAN Engineer, TIS, Instructional Staff, and Administrators	KETS, District Funds
Infinite Campus Parent Portal access will provide parents with information on student attendance, grades and other pertinent information relating to their child's performance in school	Increase Parental Communication and Standardized Grading System meeting the KDE requirements. Access to grades and assignments enables parents to provide greater support to teachers in the academic process.	Purchase Order Requests, usage reports Statistics from Infinite campus parent portal	Ongoing	CIO/DTC, School Information Systems Coordinator, School Attendance clerks	KETS and District Funds

Goal 3

Increase technology use in the classroom to improve student engagement and student achievement.

Action Plan: Strategies/Activities

Strategy/Activity	Instructional Outcome	Indicator	Timeline	Person(s) Responsible	Funding Source
Teachers will be trained in the most appropriate use of software tools through embedded PD and on an as-needed basis to help guide instruction.	Students will use the best tool available for each task.	Direct observation.	Ongoing	CIO/DTC, TIS, School Administrators	District Funds
Teachers will collaborate with the TIS to determine if a specific software matches the standards and is supported by the infrastructure.	Purchases will be purposeful and matched to standards therefore impacting student learning.	Lesson plans and classroom evaluation.	Ongoing	Teachers, School Administrators, TIS	Fund 1

Technology Goals – Evaluation Questions and Response

1) How will the activities identified above support the district's vision for an up to date, technology-rich educational environment?

   By providing distance learning opportunities, exploring the bring your own device initiative, continually updating and upgrading intelligent classroom components, and introducing teachers and students to cutting edge web tools, we are providing a technology-rich educational environment that supports college and career readiness and 21st century learning skills.

2) What are the technical standards used to ensure compatibility of interconnected systems?

   Teachers and Technology Integration Specialists develop learning plans that align to the embedded technology components within the Common Core Standards. Our district technology "systems" allow for high level, critical thinking and educational development to take place. The technical standards provide us with a template to build an infrastructure that supports the ever-growing and changing technological world. These interconnected systems allow for global learning to take place and students to achieve high standards of learning.

3) What is the technology needs to maintain or enhance the current instructional environment?

   Increased bandwidth continues to be an advantage in our growing district. Implementation and integration of the numerous technology tools and resources play an important role in the education of our students and the bandwidth issues can be a barrier and hindrance in that process. Funds are needed to update the computers, maintain up-to-date tools and resources, as well as continue to provide and increase our mobile learning and WiFi accessibility.

4) What are the indicators and accountability measures that will be used to evaluate the extent to which technology deployment and support activities are effective in promoting integration of technology into the curricula and instruction, enhance the ability of teachers to teach, and enable students to meet challenging state academic standards?

   Staff members that have intelligent classroom components are extremely proficient when using for instructional purposes. Technology Integration Specialists spend many hours with teachers to bring them up to instructional proficiency. TIS's also spend time with the teachers modeling tools and resources that align with and meet the embedded technology components in the Common Core Standards. Monthly technology professional development opportunities are made available to staff members that need and want additional training, resources, and tools to help meet the technology and Common Core Standards.

Budget Summary

Acquired Technologies and Professional Development	Title I	KETS	ERATE	Other (Specify)
Technical Services				Fund 1 $1,500.00
Fiber Optic plant maintenance				Fund 1 $34,900.00
Core switch/Wireless switch maintenance				Fund 1 $13,000.00
VBrick maintenance				Fund 1 $10,000.00
Telephone maintenance				Fund 1 $33,000.00
Telephone charges for service			$44,000.00	Fund 1 $63,000.00
100 MB Fiber Svc for Nichols EL			$18,540.00	Fund 1 $4,635.00
Other maintenance costs				Fund 1 $7,000.00
100 MB Fiber Svc for Spring Meadows	$1,980.00		$17,820.00	
Departmental Salaries				Fund 1 $265,488.00
Technology Integration Specialist				Fund 1 $180,000.00
Technical parts/eq				Fund 1 $268,600.00
Wiring upgrades to Cat6				Fund 1 $100,000.00
District Cell Phone Expense				Fund 1 $4,500.00

Cell Data for Performance Based	$8,827.88		$15,116.22	
Microsoft School Agreement				Fund 1 $68,000.00
Infinite Campus renewal				Fund1 $80,000.00
Tyler Tech. Munis in the Cloud				Fund 1 $37,000.00
Messenger and Shoutpoint			$9,708.30	Fund 1 $30,153.25
Other software expense				Fund 1 $32,750.00
Professional Development				Fund 1 $4,000.00
KETS Matching Computing devices, switches, infrastructure				Fund 1 $229,126.00
District Schools Computer & Related				SBDM $240,917.80
Computing devices/Servers/ Switches and printers for district		$184,165.00		Fund 1 $184,165.00
District Schools Software				SBDM $116,931.00
District Office Software				Fund 1 $315,000.00
Replacement of Data Cntr AC				Fund 1 $5,000.00
Central Office Computer/Related				Fund 1 $44,510.44
TOTAL	$10,807.88	$184,165.00	$105,184.52	$2,373,176.49

** The figures stated on this budget are preliminary and subject to change once FY15 budget is finalized.

Budget Summary – Narrative

Despite a tight budget and dwindling federal dollars available for technology, we have made significant gains in the past several years. 75% of our district classrooms now have interactive whiteboards and 95% have projectors. Our wireless infrastructure and phone system have recently been upgraded and expanded. All classrooms now have at least one wireless access point (WAP) to serve the students with saturated wireless coverage. With the expansion of BYOD, we have seen an even higher demand on our wireless network with personal devices, such as smartphones. This has increased the demand on wireless resources, and we are monitoring usage and may have to implement additional precautions to prevent non-educational use.

Our new High School College and Career centers are currently underway and should be open in the fall of 2014. Each school will receive approximately $200,000.00 of technology related equipment, including interactive classrooms, network infrastructure, wireless access points, security cameras, access control systems and digital signage.

This past year was particularly difficult from a budget perspective. We saw a $12,000.00 increase in our maintenance costs for telephones, because of new contract pricing at the state level. In addition, we've had several uninterruptible power supplies (UPS's) that have failed or have become overloaded. We will continue to replace aging and failing UPS's since they protect our equipment from power surges, and will provide temporary power in times when short power outages occur.

We continue to ask our vendors for competitive quotes on everyday technology purchases. We have a very knowledgeable staff and by utilizing their skills we have been able to support issues that arise from our phone system, network design, security system, access control systems, interactive white boards, and software development "in-house" without having to outsource. This has resulted in considerable savings to the district.

Despite the tight budget, we continue to maintain a good technology offering for the staff and students of Bullitt County. We seek opportunities for the best pricing and funding when and where available. We have asked Legislators to continue funding for the 50-Million dollar bond that was approved 7-years ago. Technology ages rapidly, and sustaining what we have becomes nearly as expensive, if not more, than adding new equipment.

In conclusion, we are maintaining our growth of technology through the district and are learning to do more with less money.