Technology Plan
Lee County School District
P.O. Box 668
Beattyville, Kentucky 41311

http://www.lee.kyschools.us

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Acknowledgments

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School Technology Coordinators

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Additional District Contributors

James Evans, Jr. – Superintendent

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William Owns – Board Chairman

Larry Burgess – Board Member

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Janie Thorpe – Board Member

Curt Davis – Board Member

Students

The Lee County High School Student Advisory Council

Executive Summary

Mission Statement:
The Lee County School District, in partnership with students, parents, and the community shall assure an excellent education for each and every child. The Lee County School District Technology Plan supports our Mission Statement by endeavoring to define a clear path toward meeting goals that are essential to developing and maintaining a high level of technology literacy and proficiency for all students and staff within the district. This plan has been developed with the input of students, teachers, and administrative staff in an effort to provide guidance for the technology program within the Lee County School District. This plan is a living document and is continuously being revised and updated as necessary to accommodate changes in needs, programs, budgets, and staffing.

The Lee County School District Technology Plan guides the district in its efforts to maintain a robust, reliable, and feature rich technology-enabled learning environment for our students. Additionally, the plan provides for the acquisition of new technologies and services that have the potential of increasing student achievement. The plan also provides for maintenance and acquisition of technology resources to serve students while outside of the school district in an effort to promote the educational trend of anywhere, anytime learning. These resources are also vital to our efforts to provide a
source of useful information to parents and the community in general.

It is the intent of the Lee County School District to continue to provide educational technology resources to our students and staff in a continuously evolving, flexible, and transparent manner. It is our hope that, in doing so, teachers will become more effective guides in the education process of their students. Professional Development is a key component of our plan. Our teachers must be provided timely and effective professional development resources for the newly emerging resources at their disposal. With an effective PD strategy, teachers can expand their knowledge of the technology resources available to them and adapt those resources to their individual classroom needs resulting in a more engaging, interactive, and collaborative educational experience for our students. Overall, student achievement within the Lee County School District will benefit greatly from our efforts as outlined in this plan.

Planning Process and Methodology

The Lee County School District utilizes a District Technology Committee comprised of representatives from each school. Members of each committee include the School Technology Coordinator, the District Technology Coordinator and other key school administrators and teachers. The committee meets on an "as-needed" basis to discuss technology needs within the school and to develop a plan on how to best fill those needs. The product of these meetings steers the district technology efforts and plays a key role in the development, implementation, and evaluation of the district technology plan. The Lee County School District Technology Plan is periodically reviewed to assure the district is on-target to meet the goals it sets. Whenever appropriate, the plan is revised to adjust for changes in future needs and priorities. Upon each new revision of the plan, the implementation of the previous plan is evaluated. This review and evaluation process is crucial to the development of new revisions to the plan as technology needs and goals are ever-changing. Implementation and impact checks are used to ensure that goals and activities as identified in the plan are meeting the needs of academic improvement within the district. While we typically meet most of our goals, we realize some goals will remain to be accomplished in future revisions and some goals my no longer be relevant.

Current Technology and Resources

The Lee County School District considers itself to be a leader in educational technology. Currently, the school district consists of five schools along with a central office building and has a district ADA of approximately 1000 students and employees approximately 65 classroom teachers. All schools and administrative offices are currently connected via ten gigabit fiber WAN links. The Lee County School District was one of the first in the state to pilot the KEN project which initially resulted in a 10 Mb fiber connection to the Internet which since, has been expanded to 100 Mb.

Within the five schools and the central office exists nine wiring closets housing all of the switches and servers for the school district. All network drops are serviced through new gigabit policy enabled POE switches that allow for a more robust, reliable, and secure network. A district-wide 802.11abgn wireless network is also being utilized for student instruction. This allows for the educational use of a variety of mobile computing devices for student and staff use utilizing both district-owned and personally-owned devices.

The Lee County School District has an approximate student workstation ration of 3:1 and a teacher workstation ration of better than 1:1. Currently, no student or teacher workstation is more than eight years old. Efforts are currently underway to replace those that are the oldest. Currently, all classrooms within the Lee County School District are equipped with "Intelligent Classroom" equipment. This equipment consists of a 2500 Lumens ceiling mounted LCD projector, 78" wall mounted interactive whiteboard, audio system with ceiling mounted speaker array, DVD / VCR, document camera, workstation, and networked management and control system. The Lee County School District is proud to have been one of the first in the state to provide teachers and students with this type of instructional technology in every classroom district-wide. It is believed that this equipment will prove to be a catalyst for increased student academic performance and higher instructional impact of teachers. Plans are underway to design the next generation of the "Intelligent Classroom" with a focus on improving the classroom education experience utilizing the latest technologies.

With such a large portion of the physical elements of educational technology already in place and/or being implemented, the focus will shift even more toward training and professional development for teachers and other staff members so that the full benefit of all educational technology resources can be realized. A variety of in-house, state provided, and outsourced professional development resources will be utilized to help us meet our goals.

Curriculum and Instructional Integration Goals

Goal 1

Teachers will effectively integrate interactive technologies into their instruction

Action Plan: Projects/Activities

Project/Activity	Instructional Outcome	Indicator	Timeline	Person(s) Responsible	Funding Source
Teacher will create interactive lessons that incorporate the use of their Activboards and Smartboards	Engage students in interactive activities and include relevant and real world events from the internet to demonstrate real world problem solving.	Lesson Plans Formal and Informal Observations	Ongoing	Teachers Principal	Local School
Teachers will created assessments using Student Response Systems (CPS, AvtivVote, Turning Point, etc.)	Provide immediate feedback to both students and teachers on comprehension of material	Lesson Plans Formal and Informal Observations	Ongoing	Teachers Principal	Local School
Teachers will use interactive websites and tools related to their content area.	Students will become aware of tools available on the internet that can be used for their own projects	Lesson Plans Formal and Informal Observations	Ongoing	Teachers Principal	Local School
Teachers will use a variety of intervention solutions, including software, subscription	Teachers will be able to use a variety of tools to individualize	Formal and informal observations Teacher Lesson Plans	Ongoing	Instructional Supervisor Principals	Local School

based online applications and numerous free online resources.	instruction for students requiring intervention.				

Goal 2

Teachers will develop assignments that require the use of Web 2.0 tools

Action Plan: Strategies/Activities

Strategy/Activity	Instructional Outcome	Indicator	Timeline	Person(s) Responsible	Funding Source
Curriculum will include assignments that encourage the use of student selected multimedia Web 2.0 tools Grade 3- Grade 12 Core Content Curriculum	Students will determine which technology is useful and select the appropriate tool(s) to inquire/problem- solve in self directed and extended learning	Number and quality of multimedia projects using Web 2.0 tools in core content classes	Ongoing	Teachers Principal Instructional Supervisor	Local School
Create opportunities for students to participate in relevant technology based competitions locally, statewide and nationally.	Students will solve content specific problems using a combinations of technologies	Number of competitions in which students students participate	Ongoing	Teachers Principal	Local School
Include videoconference opportunities in Grade 6- Grade 12 Curriculum	Students will use technology to express creativity both individually and collaboratively	Number of videoconference opportunities make available for students	Ongoing	Teachers TIS Principal	Local School
Integrate the book club feature of Follett-Destiny Library Management System, MyQuest, into curriculum	Using MyQuest, teachers will be able to expand collaboration and communication beyond the classroom while encouraging	Lesson Plans Formal and Information Observations	2014-2016	Teachers	Local School

				discussion.

Student Technology Literacy Goals

Goal 1

Students demonstrate a sound understanding of the nature and operations of technology systems. Students use technology to learn, to communicate, to increase productivity and become competent users of technology. Students manage and create effective oral, written and multimedia communication in a variety of forms and contexts.

Action Plan: Strategies/Activities

Strategy/Activity	Instructional Outcome	Indicator	Timeline	Person(s) Responsible	Funding Source
Grade 3- Grade 5 Technology Curriculum	Keyboarding at 20 wpm by end of 5th grade, beginning technology terminology, introduction to word processing, spreadsheet, multimedia presentation software	Student Grades	Ongoing	Elementary Technology Competency Teacher	Local School
Grade 6 – Grade 8 Technology Curriculum	Keyboarding at 35 wpm by end of 6th grade, advanced technology terminology, advanced features of word processing, spreadsheet and multimedia presentation	Student Grades, Simple Assessment for 8th grade technology competency	Ongoing	Middle School Technology Competency Teacher	Local School

	software.				
HS Technology Curriculum	Project based multimedia assignments that include student choice of Web 2.0 tool to create content. Professional level Microsoft Office classes with opportunities to received Microsoft Certifications Virtual high level programming classes offered through Distance Learning opportunities and Area Technology Center	Student Grades Microsoft Certificate Student Grades	Ongoing Ongoing Ongoing	High School Teacher Lee County ATC HS Counselor	Local School
HS/MS Technology Curriculum	Expand computer science opportunities at the HS and strive to implement a MS CS program utilizing TEALS and other computer science initiatives	Student success	Ongoing	High School Teacher High School Administrators	Local School

Goal 2

Students understand safe and ethical/social issues related to technology. Students practice and engage in safe, responsible and ethical use of technology. Students develop positive attitudes toward technology use that supports lifelong learning, collaboration, personal pursuits and productivity.

Action Plan: Strategies/Activities

Strategy/Activity	Instructional Outcome	Indicator	Timeline	Person(s) Responsible	Funding Source
Grade 3- Grade 5 Technology Curriculum	Intro to Digital Citizenship, including copyright law, cyber bullying, technology etiquette, equitable access to technology. Introduction to terminology related to ethical and social issues.	Student Grades. Multimedia project on copyright and cyber bullying completed by students each year	Ongoing	Elementary Technology Competency Teacher	Local School
Grade 6 – Grade 8 Technology Curriculum	Advanced investigation of what comprises Digital Citizenship, including legal issues as they pertain to copyright law, FairUse, privacy and cyber bullying.	Student Grades Multimedia project on copyright issues.	Ongoing	Middle School Technology Competency Teacher	Local School
High School Curriculum	Multimedia and Journalism classes teach and practice digital citizenship in all publications and	Review of all publications by media specialist for copyright violations	Ongoing	High School Principal	Local School

	productions.				

Goal 3

Students understand the role of technology in research and experimentation. Students engage technology in developing solutions for solving problems in the real world. Students will use technology for original creation and innovation.

Action Plan: Strategies/Activities

Strategy/Activity	Instructional Outcome	Indicator	Timeline	Person(s) Responsible	Funding Source
Project based assignments in all core content classes that encourage the use of collaborative Web 2.0 tools.	Students will understand that technology assists in gathering, organizing and evaluating information from a variety of sources to answer essential questions. Students will understand that technology supports critical thinking skills used in inquiry/problem solving to make informed decisions.	Number and quality of multimedia projects using Web 2.0 tools in core content classes	Ongoing	Teachers Principal Instructional Supervisor	Local School

Create opportunities for students to participate in relevant technology based competitions locally, statewide and nationally.	Students compete at different levels in developing solutions for relevant and real world problems.	STLP participation Number of competitions in which a school participates.	Ongoing	Principal	Local School

Staff Training/Professional Development Goals

Goal 1

Provide professional development training for teachers on the effective utilization of interactive technology

Action Plan: Strategies/Activities

Strategy/Activity	Instructional Outcome	Indicator	Timeline	Person(s) Responsible	Funding Source
Professional Development on new Smart Notebook software for Smartboards	Teachers will have the expertise to use the new tools in the new version of software that interfaces with their interactive whiteboards	Sign-in Sheets	2015-2016	Smart Certified Trainer	Local School
LearnPad training for teachers	Teachers will feel more comfortable creating multimedia assignments using the LearnPad tablets	Sign-in Sheets	2014-2016	Instructional Supervisor	Local School
One on One "just in time" PD during teacher planning periods	Teachers will get the customized, just in time professional development they need on new technology specific to their classroom and content	PD log	Ongoing	PD Coordinator	Local School
Develop and identify useful Online Tutorials	Teachers can get the quick help	Fewer calls to helpdesk	Ongoing	DTC PD Coordinator	Local School

	they need for common tasks.				

Goal 2

Provide the training necessary for teachers and administrators to utilize technology in making data driven instructional decisions to improve instructional practices, communicate with parents and individualize instruction.

Action Plan: Strategies/Activities

Strategy/Activity	Instructional Outcome	Indicator	Timeline	Person(s) Responsible	Funding Source
Provide professional development individually and at staff meetings on Infinite Campus	Teachers discover how the tools in Infinite Campus can help them communicate with parents to improve parental involvement through the parent portal	Observation of teacher gradebooks for timeliness of posting grades and new assignments	Ongoing	PD Coordinator Principal	Local School
Provide individual professional development on teacher website/LMS maintenance	Teachers realize how important it is to communicate with students in various formats and to keep students informed of assignments, tests and expectations	Observation of teacher websites for timeliness and accuracy	Ongoing	PD Coordinator Principal	Local School
Provide individual professional development on how to use the Student Response Systems	Teachers use the CPS system to quickly assess student's understanding of	Lesson Plans Formal and Informal Observations	Ongoing	PD Coordinator Principal	Local School

(CPS) with Thinklink Probes	content.				
Access administrator technology proficiency as outlined in administrator standards (TSSA/ISLLC)	Administrators will demonstrate technology proficiency	Administrators will access themselves as Novice, Appentice, Proficient or Distinguished	2014-2016	DTC PD Coordinator Superintendent	Local School
Select a district-wide classroom observation instrument and application	Data collect from classroom observations will be more reliable and consistent throughout the district.	Administrators all use the same classroom observation tool	2014-2016	DTC PD Coordinator Superintendent	Local School

Technology Goals

Goal 1

Replace and improve existing technology infrastructure to facilitate the ever-increasing educational technology needs of students, teachers, and administrators.

Action Plan: Strategies/Activities

Strategy/Activity	Instructional Outcome	Indicator	Timeline	Person(s) Responsible	Funding Source
Upgrade and/or replace school and district servers greater than five years old, consolidate or eliminate required servers where possible	Improve capacity and overall performance of networked instructional and administrative applications and services, reduce costs	Improvements in performance and capacity of network resources	7/2014 – 6/2016	DTC/CIO	KETS, Local
Replace old workstations that do not meet current KETS minimum standard as stated in the KETS District Technology Tools Readiness Survey and which are not economically upgradeable	Users will have access to modern workstations for daily instructional and administrative use as well as online testing	Improvements in performance and capacity of client workstations yielding greater student achievement and opportunities	7/2014 – 6/2016	DTC/CIO	KETS, Local
Continue initiative to replace old inkjet classroom printers with networked laser printers for classroom workgroup printing	improved speed, availability, and efficiency for printing instructional materials while reducing cost of consumables	Increased availability and reliability of printing resources, deceased cost of consumables	7/2014 – 6/2016	DTC/CIO Principals	KETS, Local, School

Upgrade student, teacher, and administrative workstations where practical to extend usable life of workstations	Improved performance of workstations will facilitate use of new instructional and administrative software applications	Improvements in performance and capacity of client workstations yielding greater student achievement and opportunities	7/2014 – 6/2016	DTC/CIO	KETS, Local
Installation of new classroom technology components (interactive displays) as part of new construction within the elementary school renovation	Modernize intelligent classroom systems and set a new district standard for classroom technology components	Improvements in delivery of instruction by increased ease of use and efficiency	2015 – 2016	DTC/CIO	KETS, Local, Construction Funds

Goal 2

Maintain and enhance existing data, video, and voice communication resources to provide efficient, economic, and reliable service for all classrooms and administrative offices within the school district.

Action Plan: Strategies/Activities

Strategy/Activity	Instructional Outcome	Indicator	Timeline	Person(s) Responsible	Funding Source
Continue to provide economic and reliable local and long distance telephone service to all staff by moving to a hosted VOIP telephone system (AT&T HVS)	Improved communications, features, reliability	Presence of reliable and efficient telco resources	7/2015 – 6/2016	DTC/CIO	Local, USF
Maintain leased fiber circuits to both elementary schools	Continued reliable connectivity of all network resources	Continued presence of sufficient bandwidth between schools and district to support instructional needs	7/2014 – 6/2016	DTC/CIO	Local, USF
Maintain district owned fiber circuits and LAN wiring	Continued reliable connectivity of all network resources	Continued presence of sufficient bandwidth capacity between schools and district to support instructional needs	7/2014 – 6/2016	DTC/CIO	Local
Major Redesign website service to improve usability and broaden range of information to parents, teachers, students, staff and the community in general.	Improved parental involvement through improved communications, overcome communication barriers	Presence of robust district/school web site rich with content and information needed by staff, students, and parents	Summer 2015	DTC/CIO Teachers	Local, Title I

Goal 3

Maintain existing technology human resources and seek out new funding sources for additional technology staff.

Action Plan: Strategies/Activities

Strategy/Activity	Instructional Outcome	Indicator	Timeline	Person(s) Responsible	Funding Source
Continue to employee a full-time DTC/CIO to administer the Lee County School District technology program.	DTC/CIO will oversee all aspects of technology within the school district resulting in improvements in instructional use of technology resources	Presence of full time employment of DTC/CIO	7/2014 – 6/2016	Superintendent Board	Local / GF
Continue to employee a full-time district level technician	Technician will maintain technology resources in a timely manner resulting in reliable access to technology resources for instructional purposes	Presence of full time employment of technician	7/2014 – 6/2016	Superintendent Board	Local / GF

Goal 4

Teachers effectively use educational technology and research-based instructional practices to support and enhance student learning.

Action Plan: Strategies/Activities

Strategy/Activity	Instructional Outcome	Indicator	Timeline	Person(s) Responsible	Funding Source
Instructional Supervisor will work with school administrators on using classroom observations to evaluate effective use of technology by both teachers and students within the classroom	School administrators will have the tools and training necessary to evaluate teachers' integration of technology into their curriculum.	Improved understanding of classroom technology integration by school administrators	7/2014 – 6/2016	Instructional Supervisor School Administrators	Local/GF Title I
Utilize various educational technology PD opportunities for teachers in the form of outsourced training, conferences, seminars, etc. Maintain memberships in ed-tech organizations such as ISTE.	Teachers will gain an expanded knowledge base of technology integration resulting in improved technology literacy and proficiency of their students.	Acquisition of greater knowledge and understanding of technology integration into classroom instruction yielding improved technology literacy and proficiency of students	7/2014 – 6/2016	Teachers Instructional Supervisor	Local/GF Title I
Resource teachers will be utilized to assist instructional staff in proper and effective use of technology resources	Teachers will feel more comfortable with technology resources available to them and increase their technology proficiency. Students	Acquisition of greater knowledge and understanding of technology integration into classroom instruction yielding improved technology	7/2014 – 6/2016	Teachers Resource Teachers	Local/GF Title I

within the student learning environment	will benefit academically from the teacher's increased use of technology.	literacy and proficiency of students			

Evaluation

The Lee County Technology Plan is included in the Lee County School District's Consolidated District Improvement Plan (CDIP). The DTC is required to complete Implementation and Impact Checks quarterly for the CDIP. These I & I Checks inform the school board if activities are starting on time and if they are completed on schedule. Are planned purchases fitting within the allowed budgets? Are those listed as the persons responsible all carrying out their tasks? Or, are delays, unexpected costs, or confusion about roles piling up, and putting the overall plan in danger? In addition, the school board receives good information on what student performance results the technology plan is producing. The Implementation and Impact Checks is the primary way Lee County will monitor progress of our technology goals and make mid-course corrections in response to new developments and opportunities as they arise.

LoTi (Levels of Technology Integration) is a concept developed by Dr. Chris Moersch that is designed to measure authentic classroom technology use. The LoTi concept has been identified a framework that focuses on the use of technology as a "tool", both by the student and teacher. The LoTi Framework is also aligned with state and national frameworks including the Texas STaR Chart, Florida STaR Chart, and ISTE's NETS and TSSA. Two LoTi data sources to measure the use of technology both by the teachers and students will be implemented in this project. The LoTi Framework has identified two critical areas that fit closely to the objectives of this project and provides tools with which to gather data. This first area is "Personal Computer Use", specifically "How comfortable are the teachers in using the technology tools involved in integration?" To answer this question and give us our baseline, all teachers will be asked to complete the LoTi Details Questionnaire at the beginning and ending of each school year.

The second critical area the the LoTi Framework has identified is "Current Instructional Practices", specifically "What methods the teacher uses to deliver instruction and how involved are the students in the classroom process?" There are several applications that will assist administrators in classroom walkthroughs. As part of our technology plan, we will evaluate and come to an agreement on a district wide classroom evaluation tool. Surveys will be developed via our website content management system for teachers and administrators for indicating interest and needs for professional development opportunities addressing how to use current, new, and emerging technologies, quality of the professional development, and if extension of the concept/topic is required for proficiency. Information from surveys will be shared with schools for creation of their own professional development opportunities as well as for district wide professional development.

Data from the web-based applications will be reviewed to determine usage by schools and to identify areas of greatest interest for development of systemic growth through incentives, presentation opportunities, and conference attendance to share best practices and engagement of students through integration of these resources.

Budget Summary
School Year: 2014 - 2015

Annual Budget Summary

Acquired Technologies and Professional Development		E-Rate		KETS	Other (Specify)
Servers				$3,000	
Workstation hardware upgrades				$2,000	
Local & Long Distance Telephone Service		$16,000			$3,000 General Funds
Leased Gigabit Fiber Service		$42,000			$5,000 General Funds
Web Hosting Service					$1,000 General Funds
Technician					$40,000 General Funds
DTC/CIO					$60,000 General Funds
$11,					
Maintenance/Licensing Fees				$4,000	
Instructional Software					$3,000 Local School Funds
Teacher Workstations				$2,000	
Administrative Software				$2,000	
TOTAL		$58,000		$13,000	$112,000

School Year: 2015 - 2016

Annual Budget Summary

Acquired Technologies and Professional Development			E-Rate		KETS	Other (Specify)
Servers					$2,000	
Student Workstations					$5,000	
Teacher Workstations					$10,000	
Workstation hardware upgrades					$1,000	
Local & Long Distance Telephone Service			$16,000			$2,000 General Funds
Leased Gigabit Fiber Service			$42,000			$5,000 General Funds
Web Hosting Service						$1,000 General Funds
Technician						$40,000 General Funds
DTC/CIO						$60,000 General Funds
Conferences, Seminars, Trainings, Memberships					$1,000	
Maintenance/Licensing Fees					$4,000	
Instructional Software						$3,000 Local School Funds
Administrative Software					$1,000	
TOTAL			$58,000		$40,000	$111,000