Technology Plan

Edmond Public Schools

2012-2015

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Introduction

"A revolution is occurring in our nation's schools, and it's all about the role of technology and the shift from paper and textbooks to digital content. Smart phones, laptops, tablets, e-readers, social media, and interactive whiteboards are infiltrating classrooms and changing the way learning happens. Technology makes school fun for kids and inspires collaboration, creativity and self-directed learning."[1]

Digital Curriculum and the Wireless Challenge
Center for Digital Education, 2011

In Edmond, the 'revolution' is best described as an 'evolution' as teachers and learners have begun to move from paper and pencil to digital learning materials. This change is best seen in lesson presentations; once exclusively written by hand on chalk boards, they evolved to typed lessons projected on overhead projectors and are now digitally interactive on SMARTboards throughout our district. The excitement of interactive lessons is contagious and is infecting all aspects of learning and teaching. This Technology Plan is written with the anticipation of facilitating the new learning endeavors of the 21st Century.

Background

The technology initiative began in 1997 with a goal of installing one computer in every classroom. Combined with the computer labs, we were proud of a 1:25 computer to student ratio. Since that time, we have seen multiple computers in most classrooms; many computer labs at every level of learning and the computer-to-student ratio shrink to 1:5.

Currently, most classrooms have not only a computer but also an IP telephone, a printer, a ceiling mounted projector, SMARTboard, and grades P-8 have REDCAT sound amplifiers. Eventually, every classroom will have these basics. Many classrooms have scanners, document cameras, and/or student response devices.

The district has begun virtualization of our servers, maintaining a robust hybrid server farm. We currently have 59 physical servers, and 134 virtual servers creating 20 private clouds. The District also utilizes 2 public clouds.

All business functions of the District are electronic and most of them are available to staff members 24/7. Teachers in grades 3-12 keep electronic grade books and attendance. Report

cards in grades 6-12 are available electronically through the parent portal, PIV. Paper report cards are created only for students in elementary grades and for those parents with older students without computer access.

The 1997 version of technology training offered by the District was comprised of identifying the parts of a computer and how to 'double-click'. Training has evolved into how one uses a closed social media site to establish learning communities, how to create a classroom web site, how to use data from the software packages such as SuccessMaker and Edusoft to improve student learning, and how to create interactive lessons on a SMARTboard. The technical expectations of new hires are beyond anything imagined in 1997.

Technology Planning Committee

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Oklahoma District Technology Plans
Required Elements

1 Strategies for improving academic achievement and teacher effectiveness

Edmond Public Schools will be phasing in wireless access at all schools beginning with a pilot program in the 2012-2013 school year. Wireless access will allow mobility of learning. Mobility is seen to be one of the most transformative movements in education by "positioning teachers as coordinators in a collaborative, project-based learning environment rather than lecturers at the front of the classroom."[2] Wireless will allow access to interactive digital content throughout the classroom allowing personalized instruction and immediate feedback to the teachers of student learning. All schools and classrooms constructed from 2013 forward will have wireless connectivity.

Simultaneous to the wireless implementation, evaluation of student wireless devices will continue. Wireless devices for student use should be available for once wireless access is provided to each building. A pilot of allowing students to Bring Your Own Device, BYOD, is recommended to determine benefits and effectiveness of this type program.

As electronic textbooks, e-textbooks, become available they would be an option in classrooms with wireless access. Implementation of wireless access will be a four year roll-out, completing the process in 2015-2016.

Another strategy that will be used to improve academic achievement and teacher effectiveness will be the implementation of a digital locker system and access twenty-four hours per day, seven days a week (24/7) to home directories and homework turn-in/distribution for teachers and students. This will eliminate the "I left my assignment at home/school" excuse because students will be able to access all homework assignments from home as easily as they can access them at school. A depository of a student's assignments and work submitted will be available for future record. Parents would have access to the locker system to verify student homework activity. Teachers would have the ability to leave assignments for students, correct homework, and leave corrected assignments for students via the locker system.

By increasing the quantity of digital media available for checkout by students and teachers at all secondary media centers, teacher effectiveness and student achievement will be positively impacted. All media centers should also increase the number of digital reference materials available for student and teacher use "24/7" via the web. With sufficient resources, students will be able to complete the research portion of any paper through online access to our schools' media centers. This will eliminate students waiting to access resources that someone else is using improving the efficiency of the research process. All students should be encouraged to obtain a free Metropolitan Library card and taught how to use the free resources available to them 24/7. Digital readers or e-readers will be evaluated. An e-reader with the capability of reading both textbooks and library books is imperative.

Standardizing on a learning management platform for interaction between educators and students will improve focus efforts of all stakeholders resulting in improved efficiency, student achievement and teacher effectiveness. A standardized platform will also provide a real time opportunity to demonstrate appropriate online behavior and appropriate means of communicating in an online environment.

Teachers will have a strategic and outlined plan to document technology competencies and their ability to effectively use the technologies in the classroom. Improving and expanding teacher knowledge in the use of available classroom technologies will promote learning and skill acquisition for students and improve teacher effectiveness.

Instructional Technology, in conjunction with the site Technology Specialists, will identify and develop a list of technology skills teachers should know and be able to use. Training materials will be developed for each of the identified skills.

The District will utilize time and resources currently available through site media specialists and technology specialists to facilitate the continued training on smart devices, iPad's, and the

creative use of media driven training tools such as podcasts and videos, to create a culture of embedded instructional technology within our site locations.

The District will develop a technology cadre of experts of teachers and staff, well-versed in a variety of hardware and software applications to e shared among sites in the district to offer small group training and assistance. The cadre of experts will be an important shared resource for the district

1 Strategies for improving academic achievement and teacher effectiveness

	Action	Estimated Costs	Funding Source	2012-2013	2013-2014	2014-2015
1	Pilot wireless access at one high school	$106,000.00	Bond Fund	x		
2	Installation of wireless access at high schools	$334,050.00	Bond Fund		x	
3	Installation of wireless access at middle schools	$396,335.00	Bond Fund			x
4	Evaluate installation of wireless access at elementary schools	nc	nc			x
5	Revise Standards of Conduct to include an understanding of BYOD responsibilities, standards, and expectations.	nc	nc		x	x
6	Pilot BYOD at one school	nc	nc	x		
7	Implement BYOD at all high schools	nc	nc		x	
8	Implement BYOD at all middle schools	nc	nn			x
9	Continue to evaluate eTextbooks	nc	nc	x	x	x
10	Meet with textbook committee to evaluate electronic textbooks	nc	nc	x	x	x
11	Implement a learning management system at elementary schools.	nc	nc		x	
12	Continue to implement a social media and learning management system at high schools and middle schools.	nc	nc	x	x	x
13	Evaluate digital locker systems	nc	nc	x		
14	Implement a digital locker system	$300,000.00	Bond Fund		x	x
15	Recommend schools increase the digital media available for student checkout from the school library/media center.	nc	nc	x	x	x
16	Recommend schools increase the digital reference material available for student access 24/7 through the library/media portal on the school web site.	nc	nc	x	x	x
15	Continue to evaluate eReaders	nc	nc	x	x	
14	Recommend an eReader for adoption by EPS	nc	nc			x
15	Develop strategic and outlined plan for teachers to document technology competencies and their ability to effectively use technology in the classroom.	nc	na	x		

16	Implement strategic and outlined plan for teachers to document technology competencies and their ability to effectively use technology in the classroom.	nc	nc		x	x
17	Identify the cadre of experts - "in-house" trainers	nc	nc	x		
18	Develop and maintain a list of Expected Technology Skills teachers should know how to do	nc	nc	x	x	x
19	Devleop training materials for the Expected Technology Skills	nc	nc	x	x	x
20	Evaluate wireless devices (ex. Laptops, tablets, phones) for use in classrooms	nc	nc	x	x	x

2 Goals

The Edmond Public School's Long Term Goals address technology in section IV c:

> **Continue Implementation of the District's Technology System to Support Curriculum/Instruction and Administrative Functions.**
> Recognizing the pervasive use of technology in the 21st century, the District must continue to expand the uses of technology in ways that promote better student learning and that contribute to more efficient administrative services. Besides investing in equipment and services, professional development of staff must take a high priority so that the potential benefits of technology can be maximized.

Recognizing this goal, the EPS Technology Plan Committee developed the following concept statement.

Technology Plan Committee's Concept Statement

To use technology to facilitate the opportunity for stakeholders to access 24/7 learning; in a way that

- Will motivate teachers to support, participate and innovate in new instructional practices
- Provides equal access to resources anytime, anywhere and for anyone
- Utilizes traditional and nontraditional funding sources or methods (staffing, hardware/software, communications, etc.)
- Will maintain and protect legal issues, confidentiality, and security
- Educational stakeholders will embrace learning and training in new technologies
- Maintains relevant infrastructure to support technology operation

So that the school district's community benefits from enhanced technological resources, and students are prepared for the future, closing the digital divide while preparing students to succeed in a changing society.

3 Steps to increase accessibility

Student, teacher, and parent access to Edmond Public Schools' technology resources will be significantly expanded over the next three years, with a strong emphasis being placed on access twenty-four hours a day, seven days a week (24/7) and the implementation of mobile computing devices.

The implementation of "digital lockers" for students and teachers will allow them to access their personal documents 24 hours per day, 7 days per week. This will be accomplished either by utilizing a cloud storage strategy, or by allowing remote access to "home folders" on the EPS network, reducing the need for teachers and students to "transport" documents back and forth from home to school. Specifically, they won't need to email documents to themselves, copy documents to thumb drives, or print documents at home and work to take with them. This implementation will also provide teachers and administrators with more flexibility to perform work from any location. The digital locker system will also include functionality that facilitates teachers and students exchanging homework electronically.

Other 24/7 initiatives will include providing teachers with remote access to our Pearson SuccessMaker system, the increase of digital media and library reference materials available to students outside of school hours, and standardization on a web-based learning management system, that teachers can use to create a "digital classroom" for students and parents. This digital classroom environment will increase accessibility by allowing students to access assignments, syllabus', class calendars, teacher/class chat sessions, and other teacher-provided digital resources from home.

In addition to 24/7 initiatives, wireless networking and mobile devices are also a major part of our accessibility strategy. We will be piloting a wireless network implementation in one high school during the 2012-2013 school year, and expanding to the other high schools, then the middle schools, and finally the elementary schools over a 4-year period. As part of this wireless implementation, the individual schools and the District will be evaluating and purchasing mobile devices that may include iPads, iPad carts, Kindle Fires, Laptops, smart phones, and

other mobile devices. These devices will increase student engagement, facilitate a collaborative learning environment which will allow teachers to function as coordinators - as opposed to full-time speakers - allow use of educational apps, allow online quizzes and polls, facilitate web-based research, and more. The availability of wireless network access and mobile devices will also allow teachers to create new teaching methods and learning opportunities.

To supplement individual school and District resources and eventually reach a 1:1 student/computer ratio, the District will be evaluating BYOD (Bring Your Own Device) strategies, and soliciting the donation of "gently used" smart phone and tablet devices from the community. These strategies will substantially increase the number of mobile devices available for student use, which in turn will expand accessibility to the internet and other instructional resources. The donated devices may be available for "check out" by students who do not own their own device. Additional plans for increasing accessibility to EPS technology resources include evaluating the feasibility of expanding media center hours, continuing to re-deploy used computers into strategic locations, and continuing to evaluate eTextbooks.

Prior to implementing a BYOD initiative, a committee will develop an Expectations document to be combined with the Standards of Conduct, addressing such things as responsibility for repair of personal devices that are used on campus, appropriate behavior, suitable usage of the devices and consequences for misuse. These Expectations need to be implemented so teachers can teach content, not manage many different kinds of personal devices and so the goal of increased student achievement may be obtained.

Methods of ensuring that teachers are prepared to integrate this new technology into curricula effectively will be described in greater length in sections 4 and 5 of this plan, but in general putting wireless and mobile technology into teacher's hands will give them the opportunity to become familiar with it and gain confidence. The digital locker and homework exchange system are specifically designed for easy use, to save teachers time, and simplify a process that is currently difficult. Likewise the 24/7 access to SuccessMaker and home folders requires no

additional training, but is designed to give teachers flexibility in how and where they perform their work.

3 Steps to increase accessiblity

	Action	Estimated Cost	Funding Source	2012-2013	2013-2014	2014-2015
1	Pilot wireless access at one high school	$106,000.00	Bond Fund	x		
2	Installation of wireless access at remaining high schools	$334,050.00	Bond Fund		x	
3	Installation of wireless access at middle schools	$396,335.00	Bond Fund			x
4	Evaluate installation of wireless at elementary schools	nc	na			x
5	Evaluate digital locker system/homework exchange program	nc	na	x		
6	Implement digital locker system/homework exchange program	$300,000.00	Bond Fund		x	x
7	Recommend schools increase the quantity of digital library media available for student check-out.	nc	na	x	x	x
8	Recommend schools increase the quantity of digital library reference materials available for student access 24/7.	nc	na	x	x	x
9	Standardize on a web-based, learning management system	nc	na	x	x	x
10	Continue to evaluate eTexbooks	nc	na	x	x	x
11	Provide remote access to Pearson SuccessMaker system	nc	na	x	x	x
12	Assist schools in evaluating mobile devices	nc	na	x	x	x
13	Pilot BYOD at one school	nc	na	x		
14	Implement a BYOD program in high schools	nc	na		x	
15	Implement a BYOD program in middle schools	nc	na			x
16	Continue to evaluate eTextbooks	nc	na	x	x	x
17	Continue to evaluate eReaders	nc	na	x	x	
18	Recommend an eReader	nc	na			x

19	Develop delivery process for apps, ebooks and other electronic resources	nc	na	x		
20	Research possiblity of checking out electronic readers to students without devices	nc	na		x	
21	Develop a device checkout system to checkout devices to students who do not have them	nc	na		x	x
22	Develop and maintain a standardized checklist of proficiency skills for teachers	nc	na	x	x	x
23	Implement the standardized checklist of proficiency skills for teachers.	nc	na		x	x

4 Promotion of curricula and teaching strategies that integrate technology

The adoption of the Common Core State Standards (CCSS) by 44 of 50 states, including the State of Oklahoma is driving technological change. Implementation of CCSS is being phased into Edmond Public Schools, to be complete during the 2013-2014 school year. The standards emphasize cross-content technological literacies and provide a unified set of measurable achievement. Teachers will be provided with specifics of technology expectations for students per grade level and subject area.

Vitally important to the successful implementation of CCSS will be that the District continue following the lead of our Instructional Technology Coordinator and Consultant. They work closely with the Curriculum Department to provide current resources infused with technology to all sites. The IT Coordinator and Consultant stay current on the newest and most innovative technologies available for use in the classroom. They continue to expand their "EPS Digital Toolbox" of teaching strategies and gathered resources with teachers across the District. Teachers are encouraged to develop individual Digital Toolboxes full of tricks and tips that can be most easily infused into their lesson designs. The EPS Digital Toolbox is available to teachers through the Resource Folder on the EPS network and the learning management system. Continued evolution of The Digital Toolbox is expected as new technologies emerge. The expertise of EPS Instructional Technology is shared and strengthened through Site Technology Specialists who return to various school sites armed with the latest in strategies to integrate technology. Resources and strategies are shared with the Curriculum Specialists who provide vertical teams, PLC Groups and subject specific teams with these valuable tactics. Additionally, Instructional Technology will continue provide training on new strategies and technologies through direct, small group, and individual instruction.

Realization of wireless access in EPS classrooms will result in an influx of mobile devices that will further drive instructional change. "As mobile technologies have made online and ubiquitous learning more common, the role of instructors is changing from imparters of

knowledge to facilitators of inquiry, requiring enhanced, ongoing and collaborative professional development; IT staffs have also seen a role shift, focusing less on break-fix and more on higher-level technology integration."[2] EPS IT Coordinator and Consultant will provide teachers and administrators with the higher-level technology coupled with integration techniques and strategies.

Textbook publishers are moving toward digital curriculum. For the past several textbook adoptions, additional materials have been available on publisher web sites. The learning games, quizzes, review materials and special projects have been popular with teachers and students. Interactive digital textbooks are on the horizon which will link the student to online resources, either provided or vetted by the publisher, which will allow topics to come alive. Instead of simply reading a textbook, sensory elements will take the student on learning journeys that can only be imagined today. Student will interact with textbooks. Instead of doing the problems at the end of a reading section and waiting until the next day for the teacher to correct them; students will respond to the questions digitally and have immediate feedback. Teaching strategies for digital curriculum will be available through EPS Professional Development as discussed in Section 5 of this document.

Expansion of the learning management system will provide a new platform from which to promote curricula and strategies infused with technology. Groups of teachers sharing Technology Tips and Tricks specific to grade level and subject areas are forming with the management system. EPS is on the threshold of realizing the power of this tool.

Improving each teacher's personal technology skills will empower them with the confidence to utilize technology daily in their classrooms. The Personal Technology Standards will be developed to identify skill sets teachers should grow. Development of a teaching corps of high quality, technology skilled teachers will lead to improved student academic achievement.

Instructional Technology will continue to research the how technology impacts learning gains in students and let that drive future training provided by the District.

“There are few absolutes in life, but what we can be sure of is that technology will continue to evolve. Those technologies will help schools and institutions provide smarter and more efficient learning and management tools that will improve education and control costs. They will empower students to take greater control of their education through personalized instruction and more flexible delivery mechanisms.”[2]

4 Promotion of curricula and teaching strategies that integrate technology

	Action	Estimated Cost	Funding Source	2012-2013	2013-2014	2014-2015
1	Prepare teaching strategies and best practices for use of eTextbooks and immediate research capability available through use of wireless access.	nc	na	x	x	x
2	Prepare best practices for classroom management in a wireless environment.	nc	na	x	x	x
3	Model the Best Practices for integration of the district provided wireless devices.	nc	na	x	x	x
4	Promote the use of media center reference materials via the web portal at high schools and middle schools	nc	na	x	x	x
5	Promote the use of digital checkout materials through school media centers.	nc	na	x	x	x
6	Develop a Personal Technology Use Standards	nc	na	x	x	x
7	Implement the Personal Technology Use Standards	nc	na		x	x
8	Create the technology cadre of experts	Nc	Na	x		

5 Professional Development

The power of technology to 'revolutionize' teaching and learning practice in the 21st Century has been described in the Introduction to this document. The role of the teacher in this dynamic educational process will be new with different expectations. As teachers leverage technologies to give students interactive digital lessons, they are moving from the 'dispenser of knowledge' to "an active participant and facilitator in each student's path of discovery and exploration"[3] of knowledge. Teacher preparation for digital content and delivery of lessons is essential. There is "a positive correlation between the efficacy of instructors and the amount of high-quality professional development they receive."[3]

EPS must provide multi-faceted, 'just-in-time' professional development opportunities for teachers that allow them to progress. Teachers will not arrive at professional development with the same technological skill sets or comfort levels. Lessons must be available for the beginners as well as for the more advanced learner and range from how to use specific hardware to classroom management. Lessons must be flexible enough to allow individualization.

There will be developed two essential routes to individualized Professional Development, (PD). First, the District will identify a "Cadre of Experts" who will be available to lead on-site small group training sessions. The Cadre will be composed of teachers, administrators and staff from across the District with particular expertise in an area of technology. The topics to be discussed would be determined by needs of the teachers, the needs of the site, and Instructional Technology's Best Practices. Repurposing of funding will allow principals to pay substitutes to schedule one of the Experts to come to their school to work with small groups of teachers. Principals would be allowed creative scheduling to find time for these small group sessions. Those teachers who attended the small group lessons can then share their new knowledge with other small groups utilizing the Train-the-Trainer model. The Cadre of Experts will increase participation and growth in professional development by making it easily accessible to the teachers.

Second, the District will create a repository of vodcasts, podcasts and video lessons available 24/7 for teachers to improve their technology skills. Several software and hardware vendors have instructional videos posted online in YouTube. Creating a web page with links to these existing resources, would remove the burden of locating them from the teacher, allowing their minimal time for professional development be used to learn rather than to search. Additional electronic lessons will be created by instructional technology and posted, insuring that all necessary content is available.

The 21st Century classroom has been said to be a crucial element in the United States' workforce preparedness and global competitiveness.[3] It is imperative that teachers are prepared to teach in this new environment and that they can continue to learn and grow throughout their professional career. [3] Standards of Personal Technology Use will be developed and aligned to the ISTE National Education Technology Standards for Teachers, NETS*T. Skill levels will be determined using categories such as Basic, Intermediate and Advanced. It is recommended that all teachers should be expected to reach Basic and Intermediate skill levels within a set time frame. A checklist derived from the Standards of Personal Technology Use will be made available so that teachers may document their skills and monitor their personal progress. Administrator signatures on the checklist will serve as documentation of proficiency and continued growth of each teacher.

A new culture of digital teachers with the expectation for the use of instructional technology provided every classroom will be created through the combination of on-site, small group instruction, 24/7 availability of online instructional vodcasts/podcast/video, and the identified Standards of Personal Technology Skills and checklists for teachers.

5 Professional development

	Action	Estimated Cost	Funding Source	2012-2013	2013-2014	2014-2015
1	Assist in the integration of personal devices into curricular framework.	tbd	tbd	x	x	x
2	Teacher trainng in use of personal devices as reources not as diversions in the classroom	$9,000.00	tbd	x	x	x
3	Provide teacher training on classroom management in a wireless environment.	nc	na	x	x	x
4	Prepare teacher training on and best practices for integration of the district provided wireless devices.	nc	na	x	x	x
5	Provide instruction to teachers, students and parents on the digital materials available "24/7" via the web portal to school media centers.	nc	na	x	x	x
6	Encourage all students to obtain free library cards to the Metropolitan Library System.	nc	na	x	x	x
7	Develop site and district level training for teachers.	nc	na	x	x	x
8	Implement site and district level training for teachers.	nc	na		X	X
9	Create a cadre of expert teachers in the integration of technology.	nc	na	x		
10	Provide small group teacher training on classroom management in a BYOD implementation.	nc	na		x	x
11	Create pod/vod casts for teacher use while integrating technology	$10,000.00	tbd	x	x	x

6 Technology type and costs

Currently, the District has approximately 5200 workstations, 59 physical servers, 134 virtual servers, and local-area networks at each of our 29 locations all connected through a wide-area-network. Virtualization of physical servers will continue as appropriate. The District utilizes private cloud-based applications that reside both onsite and off-site. Google and iCalendar are among the few public clouds that are in use.

A Cisco firewall (ASA 5520 Adaptive Security Appliance) delivers security services with Active/Active high availability and Gigabit Ethernet connectivity for the network. A core switch (a 13-slot Cisco Catalyst 6513 Switch T chassis) provides high-performance, high port density Fast Ethernet and Gigabit Ethernet aggregation in all parts of the network, including the access, distribution, and backbone layers as well as the server farm and data center environments. A SAN allows the transfer of many servers from physical to virtual mode. This will increase our efficiency and use of physical space.

Edmond Public Schools has standardized on PC computers with 17” flat panel monitors on student workstations and 19” flat panel monitors on teacher and staff workstations. VoIP telephones have been installed in each office and classroom. Standardization enables district technicians to be more efficient and decreases the total cost of ownership over the life of the machine. Competitive bids along with state contract pricing allow the District to purchase the equipment at a discounted rate. Kase desktop management system allows prompt response and resolution to workstation issues. Apple workstations are provided to teachers of the Fine Arts. Maintenance on Apple computers is contracted to local vendors.

Expansion of the standardized technology in classrooms and improved utilization of existing classroom technology are goals of this plan. The standard classroom will have a teacher computer with 17” flat panel monitor, a local HP printer, a ceiling mounted projector, television tuner, SMARTboard, and a VOIP telephone. Interactive devices, document cameras, other peripherals and student workstations will be installed as needed.

Additional computer labs (hard wired or wireless) will be installed as needed by each site and as the site has available space. Currently 75% of elementary schools have two computer labs available for student use. Each middle school has an open lab and 50% of them have two, all high schools have two open labs. The breakdown of computer to student ratio by school is found at the end of this section.

Wireless access will be piloted at one high school. In succeeding years wireless will be implemented at the remaining school buildings. Increasing numbers of state exams are required to be online. During the 2012 testing season, seven (7) high school exams and five (5) exams at middle schools were online. An elaborate plan bringing electricity and wiring into the high school gymnasiums and setting up 192 n-computing workstations with accompanying switches and routers was implemented in April, 2009. The large group gymnasium testing has proven extremely successful, with student scores increasing annually. This model will be expanded into middle school gymnasiums in future years. If the state moves to multiple online exams throughout the school year, a new model will be developed.

The District will continue to maximize instructional time by properly maintaining and updating the network operating system, workstation operating systems and Microsoft Office Pro. Hardware and software needed for data back-up, e-mail archiving, and the Disaster Recovery Plan has been purchased and maintenance will continue.

Edmond Public Schools Technology Plan

Student to Computer Ratio

Spring 2012

SITE	# of COMPUTERS	# of ADMINISTRATORS	# of CLERICAL	# of CERTIFIED STAFF	# of COMPUTERS STUDENTS MAY ACCESS	# of STUDENTS	STUDENT to COMPUTER RATIO	NOTES
HIGH SCHOOLS	**1712**	**16**	**39**	**381**	**1276**	**6459**	**5 to 1**	
Boulevard Academy	113	1	3	20	89	118	1 to 1	***Ratio calculation:*** # of students divided by # of PCs, less (# of Administrator PCs + # of Clerical PCs + # of Certified staff) = # of PCs that students have access to.
Memorial	527	5	12	115	395	2012	5 to 1	
North	541	5	12	130	394	2389	6 to 1	
Santa Fe	531	5	12	116	398	1940	5 to 1	
MIDDLE SCHOOLS	**1294**	**15**	**20**	**308**	**951**	**4809**	**5 to 1**	
Central	270	3	4	59	204	827	4 to 1	***Ratio calculation:*** # of students divided by # of PCs, less (# of Administrator PCs + # of Clerical PCs + # of Certified staff) = # of PCs that students have access to.
Cheyenne	235	3	4	60	168	955	6 to 1	
Cimarron	244	3	4	54	183	828	5 to 1	
Sequoyah	242	3	4	71	164	1160	7 to 1	
Summit	303	3	4	64	232	1039	4 to 1	
ELEMENTARY SCHOOLS	**2526**	**31**	**38**	**657**	**2457**	**10574**	**4 to 1**	
Angie Debo	193	2	3	51	188	730	4 to 1	***Ratio calculation:*** # of students divided by # of PCs, less (# of Administrator PCs + # of Clerical PCs) = # of PCs that students have access to. Note ~ In the elementary schools, students may have access to teacher computers, so those have been included in the # of computers available to students, for this calculation.
Centennial	136	2	3	41	131	710	5 to 1	
Charles Haskell	227	2	2	57	223	970	4 to 1	
Chisholm	157	2	2	43	153	693	5 to 1	
Clegern	76	1	1	17	74	281	4 to 1	
Cross Timbers	179	3	3	55	173	1059	6 to 1	
Ida Freeman	167	2	2	36	163	489	3 to 1	
John Ross	189	3	3	56	183	946	5 to 1	
Northern Hills	202	3	3	48	196	720	4 to 1	
Orvis Risner	182	2	3	46	177	746	4 to 1	
Russell Dougherty	84	1	1	18	82	276	3 to 1	
Sunset	199	2	3	46	194	611	3 to 1	
Washington Irving	170	2	3	47	165	846	5 to 1	
West Field	178	2	3	52	173	855	5 to 1	
Will Rogers	187	2	3	44	182	642	4 to 1	
DISTRICT TOTALS	**5532**	**62**	**97**	**1346**	**4684**	**21842**	**5 to 1**	
Current Student Count is 22,047 ~ the difference is a group of 205 students who do not use PCs						205	Clyde Howell & Pre-K at daycare facilities (off site).	

6 Budget

Fund				2012-13	2013-14	2014-15
1		**General Fund**				
	a.	Administrative Technology		175,000	175,000	175,000
	b.	Instructional Technology		35,000	35,000	35,000
2		**Local Bond Funds**		2,950,000	2,650,000	2,650,000
	a.	Telephones - IPT		120,500	85,500	85,500
		i	Phone Replacements	19,500	19,500	19,500
		ii	Call Manager/Unity Maintenar	66,000	66,000	66,000
		iii	Server Hardware Replacement	35,000	0	0
	b	Infrastructure		1,094,940	1,015,940	1,018,412
		i	KACE (desktop management)	17,000	17,000	17,000
		ii	Sophos Anti-Virus	25,000	25,000	25,000
		iii	TwoTrees Internet Content	14,400	14,400	14,400
		iv	GWAVA Retain Email	11,000	11,000	11,000
		v	Solar Winds (bandwidth	2,000	2,000	2,000
		vi	Deep Freeze (Desktop Management tool)	1,600	1,600	1,600
		vii	i365 Evault (data backup	15,000	15,000	15,000
		viii	Ghost (Desktop imaging)	3,800	3,800	3,800
		viiii	IPCelerate (zone paging, 911,	12,000	12,000	12,000
		x	What's Up Gold (network	2,000	2,000	2,000
		xi	JRB Tools (account	900	900	900
		xii	School Dude (hosted help	7,000	7,000	7,000
		xiii	Midcon Web Hosting	8,100	8,100	8,100
		xiiii	Phase II Web Site Support	10,000	10,000	10,000
		xv	Veeam (data replication)	6,000	6,000	6,000
		xvi	User Lock (account	4,000	4,000	4,000
		xvii	Vmware Renewal	25,000	25,000	25,000
		xviii	Vendor Support	159,380	159,380	159,380
		xviiii	Cox Fiber Connections to	165,000	165,000	165,000
		xx	Cox EPSAC Fiber	16,500	16,500	16,500
		xxi	OneNet Internet Service	30,360	30,360	30,360
		xxii	Replacement Switches	75,000	77,250	79,568
		xxiii	Construction Projects	5,000	5,150	5,305
		xx	Wireless Network	350,000	250,000	250,000
		xxi	Server and Storage	81,400	100,000	100,000
		xxii	Hardware warranty	15,000	15,000	15,000
		xxiii	Miscellaneous equipment	32,500	32,500	32,500

	c	Administrative		322,356	322,356	322,356
		i	Novell GroupWise Email	42,000	42,000	42,000
		ii	Austin Sky Technology -	1,860	1,860	1,860
		iii	School Connects (hosted	40,000	40,000	40,000
		iv	Get Imaging - Documentum	1,000	1,000	1,000
		v.	BMI - Laserfiche	4,340	4,340	4,340
		vi.	Pearson - SMS	47,000	47,000	47,000
		vii	Pearson - SIF Agent for Follett	690	690	690
		viii	Sage Software - Inventory	1,600	1,600	1,600
		viiii	Summit Business Systems	1,500	1,500	1,500
		x	Timecenter Inc.	5,700	5,700	5,700
		xi	Versatrans Inc	1,000	1,000	1,000
		xii	Weidenhammer - Alio	39,000	39,000	39,000
		xiii	Gallop	29,136	29,136	29,136
		xiiii	Mizuni Zone Integration	8,820	8,820	8,820
		xv	Mizuni Pearson Chancery	4,410	4,410	4,410
		xvi	Mizuni Pinnacle-SMS	3,000	3,000	3,000
		xvii	Mizuni OK Wave Support	5,500	5,500	5,500
		xviii	CRS Inc - Subfinder	8,100	8,100	8,100
		xviiii	Network Printers	16,500	16,500	16,500
		xx	Personnel Recruitment	11,200	11,200	11,200
		xxl	Copiers	50,000	50,000	50,000

	d	Instructional		1,189,450	1,198,350	1,290,350
		i	SuccessMaker 4	110,000	110,000	110,000
		ii	Edusoft	77,000	77,000	77,000
		iii	APEX Learning - Virtual	60,000	60,000	60,000
		iv	Omni-Music	1,750	1,750	1,750
		v.	Academy of Reading Annual	9,000	9,000	9,000
		vi.	Destiny	21,000	21,000	21,000
		vii	MS Office and MS SQL Server	10,000	10,000	10,000
		viii	Follett - Destiny	21,000	21,000	21,000
		viiii	Global Scholar - Gradebook	23,000	23,000	23,000
		x	NCS Pearson - SuccessMaker	12,500	12,500	12,500
		xi	Riverside Publishing - Edusoft	18,000	18,000	18,000
		xii	Vision and Surf-Lock	6,000	6,000	6,000
		xiii	Mizuni Data Warehouse	48,600	48,600	48,600
		xiiii	Adobe Product Suite	30,000	0	30,000
		xv	Ruff Draft hardware and	15,000	15,000	15,000
		xvi	Media Online Subscriptions	15,000	15,000	15,000
		xvii	Library Media	25,000	25,000	25,000
		xxi	PC Replacements	330,000	450,000	450,000
		xxii	Monitor Replacements	26,000	12,000	24,000
		xxiii	Classroom Projectors	127,200	50,000	100,000
		xxiiii	Classroom Smartboards	99,900	10,000	10,000
		xxv	Desktop Printers	28,500	28,500	28,500
		xxvi	Computer Labs	10,000	10,000	10,000
		xxvii	Online Testing	15,000	15,000	15,000
		xxviii	Digital Locker/Homework	0	100,000	100,000
		xxviiii	Site Technology	50,000	50,000	50,000
3		Federal Universal Service Funds		45% refund on Internet connectivity and telecommunica-tions service	45% refund on Internet connectivity and telecommunica-tions service	45% refund on Internet connectivity and telecommunica-tions service.

7 Coordination with other resources

Local bond funds purchase most of the District technology equipment. Technology is funded through grant awards, bond issue funds, general funds, activity funds or textbook funds. Internet and network connectivity is funded through local bond funds with partial reimbursement through the Federal Universal Service Fund and Oklahoma Universal Service Fund. The training sessions dealing with how to use the new equipment or software has traditionally been funded through federal Education Technology funds and Professional Development funds.

State and federal budget cuts are deeply impacting technology professional development. The elimination of Ed Tech funding and state and federal Professional Development funds will require creative restructuring of budgets to maximize efficiency and cost savings to provide the necessary instruction. General fund revenues are expected to be minimal for technology. Our funding will be nearly exclusively through bond fund. Regardless of funding, technology reviews and approves all technology purchases. The District technology department has developed standards of hardware and software to insure the interoperability of systems.

7 Coordination with other resources

	Action	Estimated Cost	Funding Source	2012-2013	2013-2014	2014-2015
1	Continue to purchase technology equipment and software through grant awards, bond funds, activity funds, and textbook funds.	tbd	multiple	x	x	x
2	Continue to apply for Universal Service Funds from the federal and state government to fund internet access and telephone connectivity.	nc	na	x	x	x
3	Continue to fund technology training through Professional Development funds when available.	nc	na	x	x	x
4	Repurpose existing funds to provide technology training for teachers and staff.	nc	na	x	x	x
5	Maintain hardware and software standards to insure system interoperability.	nc	na	x	x	x
6	Continue to review and approve all technology purchases.	nc	na	x	x	x

8 Integration of technology with curricula and instruction

Excitement prevails around the implementation of this Technology Plan because it will allow EPS teachers to transform their classrooms into more engaging, interactive, and collaborative learning environments; the 21st Century Classroom! Learning in this new environment will be "more active, mobile, and tailored to individual student needs. Students and teachers will be engaged in interactive information presentation, content synthesis and collaborative learning. Assessment, evaluation, and feedback to the student are integrated into learning, occurring in small steps throughout the lesson." [3] A 21st Century Classroom means that teachers can be more flexible and responsive to individual student needs. Students can be involved in exciting student-centered project-based learning while collaborating not only with classmates but with peers from other classrooms from all over the world. It is an exciting prospect! To make these dream classrooms reality, significant planning, training, coordination, and cooperation will be required.

The advent of the Common Core State Standards (CCSS) adds an expectation of technology integration throughout all grade levels and subject areas. Instructional Technology personnel will work with the subject area Content Specialists to develop best practices and sample lessons and activities that incorporate the cross-content technological literacies appropriate for each grade level. Instructional Technology and Curriculum Specialists will accumulate excellent digital resources that are interactive, use assessment techniques to identify student strengths and weaknesses, and make use of multimedia for teachers of all subjects and all grade levels. Links to the digital resources will be provided from the EPS intranet.

On-going Professional Development will provide the teacher with knowledge of and strategies to use the best practices, lessons and activities. This on-going professional development will be based upon expectations, resources for training, our ability to capitalize on the passions and strengths of our personnel, and available hardware. In addition to stand-alone technology and student devices, integration should include wireless and smart devices as the common

foundation for accessing information and innovation**.** Detailed professional development plans are found in Section 5 of this document.

While curriculum is the primary component for effective technology integration, classroom management is imperative. Teachers will be given classroom management strategies that will concurrently allow students independence in use of mobile devices and maintain an orderly learning environment.

Standards and Expectations of Student Use of Mobile Devices will be developed and implemented. By having Standards and Expectations in place, teachers will be able to teach using new technologies that motivate and excite student curiosity. Understanding the power personal mobile devices have to augment or replace current instructional materials; these devices should be implemented as a learning tool, not a diversion in the classroom. Teachers will have full discretion of student device usage in their classroom. The goal will be to increase student achievement, not just use technology.

As additional resources are available in electronic form, the process for classroom delivery (Apps, eBooks, iBooks, etc.) will be developed and implemented. Electronic resources available 24/7 for students for both checkout and reference through the schools' media center web sites should be promoted and training conducted for teachers, students and parents. Students should be encouraged to obtain free Metropolitan Library cards and taught to use the free electronic resources available 24/7.

Before a teacher may expect a student's use of technology to be efficient and effective, the teacher must have technical skills seamlessly woven into the lessons. A standardized list of technology proficiency skills for teachers will be developed and implemented. A timeline for mastery of the proficiency skills will be included.

8 Integration of technology with curricula and instruction

	Objective	Estimated cost	Funding source	2012-2013	2013-2014	2014-2015
1	Develop Best Practices for integration of technology into the Common Core State Standards.	nc	nc	x	x	x
2	Coordinate with Curriculum to develop activities and sample lessons that tie to the Common Core State Standards.	nc	nc	x	x	x
3	Prepare teaching strategies and best practices for use of eTextbooks and immediate research capability available through use of wireless access.	nc	nc	x	x	x
4	Prepare best practices for classroom management in a wireless classroom	nc	nc	x	x	x
5	Accumulate excellent digital resources for teachers in all subjects and make links available on the EPS web.	nc	nc	x	x	x
6	Model the best practices for integration of the district provided wireless devices.	nc	nc	x	x	x
7	Create the cadre of experts to assist teachers as they integrate technology	nc	nc	x		
8	Develop Standards and Expectations of Student Use of Mobile Devices	nc	nc	x		
9	Implement Standards and Expectations of Student Use of Mobile Devices.	nc	nc		x	x
10	Develop classroom management strategies for operating an effective wireless classroom.	nc	nc	x		
11	Implement classroom management strategies for operating an effective wireless classroom.	nc	nc		x	x
12	Develop a check list of Standard Technology Proficiency Skills for teachers.	nc	nc	x	x	x
13	Implement the checklist of Standard Technology Proficiency Skills for teachers.	nc	nc		x	x

14	Promote the use of media center reference materials via the web portal at high schools and middle schools	nc	nc	x	x	x
15	Promote the use of digital checkout materials through school media centers.	nc	nc	x	x	x
16	Promote the use of online resources available through the Metropolitan Library System.	nc	nc	x	x	x
17	Encourage all students to obtain free library cards to the Metropolitan Library System.	nc	nc	x	x	x

9 Innovative delivery strategies

Edmond Public Schools has been piloting an online program for credit recovery at the high schools, the alternative school and summer school. The program has proven successful, with nearly 600 course credits being recovered by students during the 2011-2012 school year. The credit recovery program will be continued into the future. The online program will be expanded by its utilization as a supplemental resource to regular classroom instruction. The District is anticipating students in the newly created Supplemental Online Program through the State Department of Education.

The District is exploring the development of a paperless school environment through the use of eTextbooks, eReaders and digital lockers. This would be a multi-year implementation driven by the availability of appropriate eTextbooks and funding. Provisions would be included to make available necessary eReaders or other devices for those who do not have them.

Digital lockers would allow teachers and students to access the contents of their home directories while off campus, greatly increasing efficiency and time management. The digital locker system would be accessible twenty-four hours per day, seven days a week (24/7) and would enable the digital exchange of homework between teacher and student. This will eliminate the "I left my assignment at home/school" excuse because students will be able to access all homework assignments from home as easily as they can access them at school. A depository of a student's assignments and work submitted will be available for future record. Parents would have access to the locker system to verify student homework activity.

One high school's media center currently has significant reference materials available to students to access 24/7 through their web portal. It is recommended that the other secondary schools increase their digital reference materials to allow access to references 24/7 district-wide. It is also recommended that all media centers increase the digital materials available for student check out. Expansion of media center hours would give more access for students who do not have online access to the media centers from home.

The expansion of the use of vodcasting, vlogging, or video technology, through school YouTube and TeacherTube channels would encourage growth in the number of flipped classrooms and other innovative ways to deliver instruction district –wide. Flipped classrooms allow students to watch an instructional video of the teacher's lecture prior to attending class; freeing class time for discussion, problem solving and obtaining one-on-one help from the teacher. Student engagement in class work is shown to improve following this model. Several teachers across the district have flipped their classrooms and could be used to mentor other teachers through a cadre of experts.

As student learning becomes available 24/7, so must professional development, teachers must re-create themselves into digital teachers. Extending the District's video technology would allow vodcasts of technology professional development that is not only cutting edge but convenient for the professional teacher. Using the District YouTube or TeacherTube channel to store instructional videos over everything from core concepts to most recent acquisitions in hardware and software is both practical and cost efficient. This mode of delivery provides convenience for staff and the ability "to find that sweet spot for each teacher to align professional development with their real needs."[3] Creating a staff "library" of instructional videos compiled by the professionals within our district could provide a workable solution to new hires, expanding the skill sets of veteran teachers, or as a showcase for our most talented educators documenting cutting edge best practices.

By using the Personal Technology Use Standards document, the teacher will document areas of personal strength and weakness. Using the library of instructional vodcasts, a teacher's technology skills may progress at a pace they are most comfortable.

Utilization of e-textbooks and e-readers is on the horizon. EPS awaits the release of interactive e-textbooks appropriate for P-12 students. Evaluation of e-readers continues. It will be most cost effective and efficient to utilize one device to read both library books and textbooks.

9 Innovative delivery strategies

	Objective	Estimated cost	Funding source	2012-2013	2013-2014	2014-2015
1	Continue online program for credit recovery at high schools.	150,000.00	Bond Fund	x	x	x
2	Utilize the online program as a supplemental instructional resouce.	nc	nc	x	x	x
3	Explore paperless school options.	nc	nc		x	x
4	Evaluate digital locker systems.	nc	nc	x		
5	Implement digital locker system.	nc	nc		x	x
6	Recommend expanding digital reference materials in school libraries.	nc	nc	x	x	x
7	Recommend expanding digital checkout materials in school libraries.	nc	nc		x	x
8	Create repository of vodcasts or videos for professional development.	nc	nc	x	x	x
9	Create an archive of vodcast lessons designed by EPS teachers.	nc	nc		x	x
10	Develop the checklist of Standard Technology Proficiency Skills for	nc	nc	x	x	x
11	Implement the checklist of Standard Technology Proficiency Skills for teachers.			x	x	x
12	Promote the use of media center reference materials via the web portal at high schools and middle schools	nc	nc	x	x	x
13	Promote the use of digital checkout materials through school media centers.	nc	nc	x	x	x

10 Parental involvement

Edmond Public Schools' has stepped up parent communication in the last few years by use of our Facebook account and by rolling out a mobile application for Smartphones with push technology. Principals 'push' information out to subscribers on a daily basis. Currently, we have approximately 16,000 subscribers district-wide. In future years, we expect to see additional schools implement Facebook and Twitter accounts to be used for improved communication between schools and families. Schools leave telephone messages for parents and families via the SchoolConnect system.

For the past several years, the Pinnacle Internet Viewer (PIV) has been the parent portal to the grade book and attendance records. The immediate feedback of student progress and attendance is very popular with parents across the district. It is the intent of the District to continue PIV and to explore options of expanding its capabilities.

Parental access to the learning management system accounts is new during 2012. Parents may login to The learning management system to follow classroom discussions, student-teacher interactions, and group tasks. With the popularity of PIV, it is expected the view into the classroom provided by the learning management system will be equally accepted by parents.

EPS is evaluating digital locker systems in an effort to allow students and teachers 24/7 access to their files and a method of maintaining a digital portfolio of student work. Parents would have access to the locker system to follow student progress.

Each of these previously mentioned communication mediums, along with the District web-site, teacher web-sites, school web-sites, and email have been growing in popularity and effectiveness as increasing numbers of families find the benefits of these communication modes. Increasing the use of video for schools to communicate information can assist in overcoming the language barrier as some parent and patrons understand verbal conversation better than written forms of communication.

10 Parent involvement

	Objective	Estimated Cost	Funding Source	2012-2013	2013-2014	2014-2015
1	Continue to expand the information available to parents in the mobile application.	nc	na	x	x	x
2	Continue to expand the information available to parents in the Pinnacle Internet Viewer.	nc	na	x	x	x
3	Continue to update parents via EPS Facebook account.	nc	na	x		
4	Assist school sites as they implement site Facebook accounts to improve parent communication.	nc	na	x	x	
5	Evaluate Twitter notifications from sites to parents.	nc	na		x	
6	Continue to maintain district and site web pages to inform parents and the public about our schools.	$54,300.00	Bond Fund	x	x	x
7	Educate parents about the benefits of using the learning management system and how they can participate.	nc	na	x	x	x

11 Collaboration with adult literacy service.

Community partners and outreach services for adult literacy work in conjunction with EPS to share resources from state and federal levels. Combining common initiatives regarding technology integration such as podcasting, book reviews, and reading challenges has the potential to increase the scope by which we impact our learners.

Edmond Public Schools will continue its partnership with Francis Tuttle Technical Center for adult educational opportunities. The partnership will expand in 2014-2015 as planning begins for a shared campus. Students will have the opportunities of both an excellent high school and an excellent technical center on the same campus.

The District's partnership with the University of Central Oklahoma will also continue. Teachers and students access resources from the university, confer with professors, and take courses regularly.

The District's elementary school media center specialist's partner with the Metropolitan Library System to develop the Annual Summer Reading Program. This is a popular program, resulting in students and adults reading throughout the summer. EPS students and teachers readily access the Metropolitan Library System for resources whether face-to-face on online while researching lesson information. Reference sources and materials for checkout are available online, 24/7. Meeting rooms are used for small study groups or private tutoring sessions.

Continuing these partnerships will maintain the existing strong community bonds ensuring the children in Edmond will receive the best education in the state.

11 Collaboration with Adult Literacy Service Providers

	Objective	Estimated Cost	Funding Source	2012-2013	2013-2014	2014-2015
1	Coordinate with Francis Tuttle Technical Center to design a shared campus.	nc	na	x		
2	Coordinate with Francis Tuttle Technical Center to build a shared campus.	nc	na		x	
3	Coordinate with Francis Tuttle Technical Center to staff and open a shared campus.	nc	na			x
4	Coordinate with Francis Tuttle Technical Center to technically equip a shared campus.	$50,000.00	Building Funds		x	
5	Coordinate with Francis Tuttle Technical Center to develop curriculum for a shared campus.	nc	na		x	
6	Work with Metropolitan Library System to develop a list of online resources students may access.	nc	na	x	x	x
7	Continue working with UCO to develop cohort groups, speakers, student visits, and concurrent enrollments	nc	na	x	x	x

12 Accountability measures

Edmond Public School receives an Annual Yearly Progress (AYP) report from the State Department of Education evaluating our effectiveness as a school district. Students are measured on state mandated Oklahoma Core Curriculum Tests (OCCT) at the end of 3rd- 8th grades and End Of Instruction (EOI) tests at the end of high school core curriculum classes. Student performance in these areas is a major component of the District's accountability. Since increasing amounts of the instructional processes are electronic, it is also a measure of the effectiveness of instructional technology.

The reading improvement initiative for IEP students, grades 1-12, will be continued. With proper execution, the utilization of *SuccessMaker, Academy of Reading, and Apex Learning* results in significant improvement in student's reading abilities. These gains are measured regularly by teachers to monitor student progress throughout the year. Elementary schools are complying with the guidelines of the Reading Sufficiency Act of 2005 by using Dibels Exam as the screening instrument. Renaissance's *STAR Early Literacy* and *STAR Reading* assessments are used throughout the District for assessment of reading ability. SuccessNet Reading Street provides reading benchmarks for elementary age students. Most of these are electronically delivered, reflecting technology utilization.

Renaissance's *STAR Math Assessment* and *Benchmark Exams* are used at all levels to assess mathematics skills. Harcourt's interactive *Math Center* assists teachers in preparing students for *Benchmark Exams*.

Formative assessments are conducted by many teachers at all grade levels using either eInstruction's *Interactive Response System or* SMART Technology's *SMART Responders*. Both these devices are commonly called "clickers" in the schools. These interactive devices allow immediate feedback about student understanding, creating an instant re-teaching option for teachers.

Pinnacle Internet Viewer gives immediate accountability reports of student progress to parents on demand.

Mizuni's Data Warehouse provides the ability to access historic documents more effectively and allows administrators to monitor annual progress of grade levels, programs, and departments. Data can be disaggregated to allow analysis of the progress of specific demographic groups; insuring that all the 'sub-groups' reported in the Annual Yearly Progress (AYP) are monitored and are making appropriate learning gains.

The implementation of Riverside's *EduSoft* program allows teachers direct feedback of student progress through subject specific District Benchmark Exams given periodically in grades 6-11. Results are analyzed and used more easily for improvement of instruction. Response to Intervention (RtI) use all of the programs listed above to assist students.

The Personal Technology Use Standards and the Proficiency Checklist will guide accountability for the acquisition and use of classroom technology skills by teachers to promote student learning.

12 Accountability

	Action	Estimated Cost	Funding source	2012-2013	2013-2014	2014-2015
1	Continue analysis of Annual Yearly Progress Reports	nc	na	x	x	x
2	Continue utilization and score analysis of student progress through SuccessMaker, Academy of Reading, Apex Learning, Read 180, Dibels assessments, STAR Early Literacy and Star Reading.	nc	na	x	x	x
3	Continue utilization and score analysis of student progress through STAR Math Assessments and district Benchmark Exams.	nc	na	x	x	x
4	Continue utilization of 'clickers' to monitor immediate student understanding of concepts presented in class.	nc	na	x	x	x
5	Maintain and expand Pinnacle Internet Viewer for parents.	nc	na	x	x	x
6	Expand the data content and reporting options in the data warehouse.	nc	na	x	x	x
7	Develop the Personal Technology Use Standards and Checklist	nc	na	x	x	x
8	Implement the Personal Technology Use Standards and Checklist.	nc	na		x	x
9	Continue to provide workstations for End Of Year testing grades 9-12 and online OCCT grades 6-8.	nc	na	x	x	x
10	Develop plan to provide workstations for PARCC testing	nc	na			x

13 Supporting resources

In-house personnel:

EPS Board Of Education, Superintendent, Administrative Team, Chief Financial Officer, Director of Technology, IT Coordinator, Systems Analyst, Network Administrator, IT Consultant, IP Telephone Network Technician, Field Support Supervisor, 2 Field Technicians, 4 Site Technology Support Specialists, Applications Programmer, Data Support Specialist, Student Accounting Specialist, Help Desk, Site Technology Specialists, and high school Lab Facilitators.

Vendor resources:

AJG, Cisco SmartNet, Cisco, Cox Communications, CSPI, GET Imaging, Mizuni, Phase2 Interactive, Presidio, TwoTrees Technologies, United Systems, Video Realities,.

13 Supporting resources

	Objective	2012-	2013-	2014-
Local Resources				
A.	Board of Education	X	X	X
B.	Superintendent	X	X	X
C.	Administrative Team	X	X	X
D.	Chief Financial Officer	X	X	X
E.	Director of Technology	X	X	X
F.	Coordinator, Instructional Technology	X	X	X
G.	Systems Analyst	X	X	X
H.	Network Administrator	X	X	X
I.	Consultant, Instructional Technology	X	X	X
J.	IP Telephone Network Technician	X	X	X
K.	Field Technician Supervisor	X	X	X
L.	Field Technicians (full time)	X	X	X
M.	Applications Programmer	X	X	X
N.	Data Support Specialist	X	X	X
O.	Student Accounting Specialist	X	X	X
P.	Part-time Field Technicians	X	X	X
Q.	Technology Support Specialists	X	X	X
R.	Site Technology Specialists	X	X	X
S.	High School Lab Facilitators	X	X	X
T.	Vendor resources	X	X	X
U.	Subscriptions to online data bases in media centers	X	X	X
V.	Subscriptions to computer assisted instructional packages	X	X	X

Vendor Resources:				
A.	AJG	X	X	X
B.	Apple.com	X	X	X
C.	Apex Lamps	X	X	X
D.	AT&T	X	X	X
E.	AT&T Mobile	X	X	X
F.	AVL	X	X	X
G.	B & H Photo Video	X	X	X
H.	BMI	X	X	X
I.	CDW-G	X	X	X
J.	Chickasaw Telecom	X	X	X
K.	Cisco	X	X	X
L.	Cox Communications	X	X	X
M.	CSPI	X	X	X
N.	EduStructures	X	X	X

O.	Electralink	X	X	X
P.	GET Imaging	X	X	X
Q.	Gruber Communications Products	X	X	X
R.	HP	X	X	X
S.	ISG	X	X	X
T.	Jeff Petty Electric	X	X	X
U.	JL Hein	X	X	X
V.	John Applegate - Telephone Support	X	X	X
W.	Lenovo	X	X	X
X.	Lightspeed	X	X	X
Y.	MetroTech Electrical Contracting, Inc.	X	X	X
Z.	Mizuni	X	X	X
AA.	Phase2 Interactive	X	X	X
BB.	Presidio	X	X	X
CC.	OneNet	X	X	X
DD.	Smart Technologies	X	X	X
EE.	SMART Technologies, UL	X	X	X
FF.	TwoTrees Technology	X	X	X
GG.	United Systems	X	X	X

Electronically delivered education data management materials include:

	Software	Vendor
1	DataWarehouse	Mizuni, Inc
2	Mizuni SIF	Mizuni, Inc
3	Chancery-SMS	Pearson
4	Novell	Novell, Inc
5	Alio, Employee Portal and Alio Intelligence	Weidenhammer
6	School Connects	Synrevoice
7	Teacher Insight	Gallop Education
8	VM Ware	ISG
9	Pinnacle - grade book + PIV	Global Scholar, Inc
10	Sophos	TwoTrees Technology
11	Destiny - Library Manager and Textbook Manager	Follett
12	UserLock	IS Decisions
13	I365	I365, Inc
14	TalentEd Recruit & Hire	Netchemia
15	Laserfishe	BMI
16	TimeCentre	TimeCentre, Inc.
17	Moblie Principal	Austin Sky Technology
18	FasGov Fixed Assets	Sage Software
19	Versatrans	Versatrans
20	Versatrans/eLink	Versatrans, Inc
21	GetImaging	Get Imaging
22	Solar Winds Orion	Solar Winds
23	SurveyMonkey	SurveyMonkey
24	SchoolConnect - mobile app	School Connect
25	Versatrans/eLink	Versatrans
26	Horizon	Horizon Meal Planner
27	SubFinder	Subfinder
28	Activity Tracker	Versatrans
29	MealPayPlus	MealPayPlus
30	XAP	Xap, Inc

Electronically delivered learning materials include:

	Software	Vendor
1	SuccessMaker	Pearson Digital
2	Edusoft	Riverside
3	Apex Learning	Apex Learning
4	EveryDay Math	McGraw Hill
5	Master Collection	Adobe
6	Databases for HS Research	Gale Group
7	World Book Web School	World Book, Inc
8	Discovery Education	Discovery Education
9	Accelerated Reading	Renaissance Learning
10	Reading Quizzes	Renaissance Learning
11	Academy of Reading	School Specialty
12	SIRSearch, SIRS Researcher	ProQuest, LLC
13	Photoshop	Adobe
14	STAR Mathematics	Renaissance Learning
15	Creative Suite v5	Adobe
16	Design Standard	Adobe
17	iSafe	iSafe, Inc
18	Accelerated Math	Renaissance Learning
19	Math Facts in a Flash	Renaissance Learning
20	STAR Reading	Renaissance Learning
21	Math Intervention	Scholastic, Inc
22	Producton Suite v5	Adobe
23	Facts on File	Facts on File
24	Controversies in American History	Facts on file
25	Acrobat	Adobe
26	CyberMARS	Metropolitan Library
27	Digital Prairie - Electronic Library	EBSCO
28	Edmodo	Edmodo
29	Health Careers	Francis Tuttle
30	Oklahoma Career Information Service	Oklahoma State Career
31	Faast Math	Scholastic, Inc
32	Read 180	Scholastic, Inc
33	Renaissance Place	Renaissance Learning
34	STAR Early Literacy	Scholastic, Inc

Endnotes

1 http://www.convergemag.com/paper/Digital-Curriculum-and-the-Wireless-Challenge.html

2 Halpin, J. and Cauthen, L. (2012). Campus Infrastructure: 9 Key Areas to Lead Schools into the Future, *Converge*, (3)1.

3 Halpin, J. and Cauthen, L. (2012). Digital Teaching and Professional Development, *Converge,* (2)1.