WCCUSD Technology Plan Contact Information

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West Contra Costa Unified School District

Education Technology Plan
January 1, 2014 – June 30, 2017

West Contra Costa Unified School District Technology Plan
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The West Contra Costa Unified School District communities work toward the goal of improving student achievement and preparing students for life and the workplace. The District has prepared this Educational Technology Plan 2014 -2017 to articulate a common vision for technology in West Contra Costa schools and identify the strategies that will help schools use technology to promote and adequately support student achievement.

In alignment with the National Educational Technology Standards (NETS), our vision of Educational Technology is one where:

- All students and educators have access to information technology in classrooms, schools, their homes, and the community.
- All classroom teachers use technology to help students achieve high academic standards.
- All students have technology and information/media literacy skills.
- Digital content and networked applications transform teaching and learning.

Our technology plan focuses on the following:

- Evaluating technology tools and resources available to support teaching and learning;
- Linking the classroom with educational resources within the school, the District, the community and worldwide;
- Creating a collaborative environment for project based learning;
- Promoting learning communities via collaboration between both school and home on joint educational projects;
- Promoting learning communities via collaboration between schools and departments;
- Promoting the benefits of online formative and summative assessment;
- Focusing on strategies that enhance communication and make assessment results useful.

District Overview

Located on the northeast end of the San Francisco Bay Area, the West Contra Costa Unified School District (WCCUSD) serves 30,509 students in five cities and six unincorporated areas. WCCUSD is the 30th largest school district in California with 18 Pre-Schools, 1 Special Education Pre-School, 1 Special Education Adult School, 34 Elementary Schools, 6 Middle Schools, 2 K-8 Schools, 7 High Schools, 3 Alternative

and Continuing High Schools, 2 Adult Education sites, 9 Operations Sites, and 8 Charter Schools. Our diverse student population includes: 50.7% Latino, 19.8% African American, 11.6% Caucasian, 10.7% Asian, 5.7% Filipino, and 1.5% other ethnicities. More than 108 languages are spoken within our 110 square mile jurisdiction. There are over 9,400 (about 30%) English Learners (ELs) in our District, of which 83.29% are Spanish speakers. We have 24 schools eligible for Title I funding in 2013-2014 including 18 elementary schools, three middle schools, and three high schools.

Our technology plan goals are to:

1. Provide the highest quality education to all students to enable them to make positive life choices, strengthen our community, and successfully participate in a diverse and global society;

2. Provide excellent learning and teaching experiences; safe, student-centered learning environments; and support for all students and employees.

Background History:

The District's Educational Technology Plan Committee was originally formed in 2001, to develop a technology plan based on state guidelines, when the California Department of Education (CDE) announced new requirements for school districts in regards to technology plan.

With facilitation provided by the Instructional Technology Coordinator, the committee conducted needs assessments, reviewed the District's curricular goals, visited other Districts, and reviewed literature for best practices. The work of the committee resulted in the education technology plan, "Bridging the Gap with Technology, 2002- 2005," which received state approval in April 2002. The Committee then submitted a revised plan in 2005, 2008 and again in 2011, which were also approved by the CTE. Under the leadership of the new Chief Technology Officer and restructured Cabinet, the WCCUSD technology plan was again revised to provide a fresh set of guiding principles for the following technology-related areas: student use of technology for learning, training of faculty and staff, development of instructional programs and teaching strategies, acquisition of necessary and relevant hardware and software, and utilization of all available and potential technology resources.

This current revision of the Technology Plan (2014-2017) takes into consideration the need for coordination of a large-scale effort that must address both access and equity in the implementation of instructional technology at WCCUSD.

1. PLAN DURATION

The benchmarks and timelines in this technology plan will guide our District's technology integration efforts over the course of the next three school years, i.e. from January 1, 2014 to June 30, 2017. The primary focus of this revised plan is to identify and process the appropriate goals, objectives and measurement instruments needed to determine technology integration efforts.

The WCCUSD Technology Plan is subject to annual budget revisions, due to funding issues. Thus, the technology-related goals and objectives identified in this plan, as well as their implementation, will be reviewed and modified as necessary on a yearly basis.

2. STAKEHOLDERS

In 2013 key input was solicited from key Cabinet members from Educational Services and Kindergarten-Adult Operations. A small subcommittee of the larger Technology Subcommittee met several times to develop the plan. In addition, business and Board members were involved in the process of drafting and revising the plan. Community members were asked for input and feedback that was incorporated into the updated plan.

The WCCUSD Educational Technology Plan was developed in close alignment with specifications of both State and Federal guidelines. The WCCUSD Technology Plan Committee aligned the education technology plan with the California Board of Education adopted guide--*Education Technology Planning: A Guide for School Districts* and the WCCUSD Strategic Plan. Tight integration with the district's strategic plan is an essential ingredient to ensure all staff, community and Board members are working and communicating together with common goals in mind. In other words, "being on the same page" will allow us to walk the same path more effectively and efficiently.

3. CURRICULUM COMPONENT

3a. Teachers' and students' current access to technology tools both during the school day and outside of school hours.

Currently, all WCCUSD students have access to technology in their schools. The location, number and age of computers vary by site (See Appendix B). At all levels, students are expected to utilize the tools of technology to further their learning. Special Education Assistive Technology Specialists support teachers and IEP Teams by providing access and training with appropriate technologies for students with disabilities. At some sites, technology is available to students before and after school, as well as during lunch. The majority of our classrooms have computers and all teachers have

access in the classroom. The estimated number of fully functional computers per 100 students is typically 20 for elementary schools, 38 for middle schools, and 32 for high schools. All of these computers have Internet access. The district has more than 2,500 computer workstations available at all of its computer labs, and nearly 5,000 workstations at all of the district classrooms. The district has wireless network connectivity in 21 schools. All school sites have a library/media center available, with an average of three fully connected computer workstations per school site.

A recent baseline survey was administered to selected schools to find information regarding students who do not have Internet access at home. Although, the return rate of the survey was not sufficient to report exact percentages of students without internet access, it was clear that we have a significant percentage of students disadvantaged in this area. This need will be addressed in this plan.

This data will be updated on a yearly basis and will include all schools. The WCCUSD Adult Education Division provides additional technology education opportunities for parents and adults, as well as for high school students who have not passed the CAHSEE by 12th grade.

3b. Description of the District's current use of hardware and software to support teaching and learning.

Based on our local equipment inventory, teacher use of instructional technology in schools varies greatly from site to site. In a recent baseline survey, it was found that of the 1,288 certificated respondents (85% of certificated staff):

- 43% integrate technology into their classroom instruction on a daily basis
- 73% are using of digital media in the classroom at a variety of experience levels
- 40% feel that technology in not adequately available
- 40% feel that the technology in place is not working properly, is slow, or outdated
- 20% are happy with their current classroom technology
- 44% are not aware of ed1stop

The entire survey is included in Appendix A.

Given the large number of computers in the District and the ages associated with them, there is a wide range of operating system software installed. New computers are using Windows 7 as the operating system. Microsoft Office 2010 is the current office productivity software standard. The standard Internet browser is Internet Explorer. There is even greater variation among the content software and other electronic resources used at school sites and all grade levels indicate a need for standards-based electronic resources.

WCCUSD has implemented a number of activities to promote and enhance the use of technology. Funding from the Bond program has proven particularly critical in allowing us to expand technology use for students district-wide. Teachers' use of calculators in basic math, Algebra 1, statistics and graphing, for all middle school students, increased from 0% to 100%. There was a moderate increase in access and usage of online educational programs via the County's *Ed1Stop* portal. There has been an increase in the usage of online tools for research and curriculum enhancement as evidenced by classroom observation. Lack of funding and inadequate coordination and dissemination of best practices in technology integration remain as obstacles to full adoption by educators.

3c. Summary of the District's curricular goals that are supported by the tech plan.

The Technology Plan is driven by the newly developed Strategic Plan which focuses on the "Whole Child Whole Community".

The Mission Statement of the West Contra Costa Unified School District is:

> WCCUSD, in partnership with the community, serves the whole child, preparing every student to succeed in higher education, career, and life by pairing high quality academics with social, emotional, and wellness support.

The Vision Statement of the West Contra Costa Unified School District is:

> WCCUSD envisions a school district that:
> - continuously sets and meets high expectations;
> - embraces challenges and innovative solutions;
> - supports its teachers and employees whole-heartedly;
> - builds a community with shared values and buy-in; and
> - above all, prepares every student to succeed in all facets of education and life.

Six Key Priorities:

- **Create High Expectations** - Creating high expectations is the foundation for improvement throughout the District, as all stakeholders have to buy into the overarching goal and vision.

- **Support Quality Instruction** - As the foundation of high expectations is laid, the District will fully support its teachers and principals to deliver quality instruction and harness the academic potential of the District's student body. As this priority is the only priority within "Build" that is completely within the jurisdiction of the

District, this priority is the internal manifestation of the high expectations.

- **Embrace Collective Ownership** - While the previous priority focuses on the internal, this priority represents the external. The District will create the systems to facilitate active and meaningful engagement of nonprofit service providers, local businesses, foundations, local governments, and other community partners. These partners can provide the District critical supplemental support in working toward student success.

- **Invest in the Whole Child** - The internal and external efforts described above combine to provide a whole-child approach to education, which is at the heart of the District's new Mission Statement.

- **Prioritize Accountability** - Every effort within the "Build" phase will be held to high standards. The District must be accountable to its stated goals and constantly seek opportunities for improvement. To do this, the District will develop and operationalize transparent processes for quantitatively and qualitatively measuring progress.

- **Innovate** - With each effort measured a new opportunity identified, the District and its stakeholders will innovate and find creative and resourceful means by which to capitalize on the opportunities and further promote student success. These new ideas and systems will be strategically and meaningfully tested by returning to the "Build" phase and beginning the cycle anew.

3d. List of clear goals, measurable objectives, annual benchmarks, and an implementation plan for using technology to improve teaching and learning by supporting the District curricular goals and academic content standards.

Goal 3d: Technology will be integrated into all curricular areas to assist students in mastering California Common Core Standards (CCCS).
Objective 3d.1: By June 30, 2017, 90% of all district-lead professional development will include instructional strategies that integrate technology into the curriculum.
Year 1 Benchmark: By June 30, 2015, 20% of all district-lead professional development will include instructional strategies that integrate technology into the curriculum.

Year 2 Benchmark:
By June 30, 2016, 60% of all district-lead professional development will include instructional strategies that integrate technology into the curriculum.

Year 3 Benchmark:
By June 30, 2017, 90% of all district-lead professional development will include instructional strategies that integrate technology into the curriculum.

Objective 3d.2:
By June 30, 2017, 100% of student learning activities in English/language arts (ELA), Math, Social Science, and Science will indicate where and how technology is integrated into the curriculum.

Year 1 Benchmark:
By June 30, 2015, 25% of student learning activities in English/language arts (ELA), Math, Social Science, and Science will indicate where and how technology is integrated into the curriculum.

Year 2 Benchmark:
By June 30, 2016, 60% of student learning activities in English/language arts (ELA), Math, Social Science, and Science will indicate where and how technology is integrated into the curriculum.

Year 3 Benchmark:
By June 30, 2017, 100% of student learning activities in English/language arts (ELA), Math, Social Science, and Science will indicate where and how technology is integrated into the curriculum.

Objective 3d.3:
By June 30, 2017, 90% of teaching staff will actively use online tools, such as Google Apps for Education, ed1stop, Media Master, and Edmodo and will successfully integrate these applications throughout the curriculum.

Year 1 Benchmark:
By June 30, 2015, 10% of teaching staff will actively use online application tools, such as Google Apps for Education, ed1stop, Media Master and Edmodo and will successfully integrate these applications throughout the curriculum.

Year 2 Benchmark:
By June 30, 2016, 50% of teaching staff will actively use online application tools, such

as Google Apps for Education, ed1stop, Media Master and Edmodo and will successfully integrate these applications throughout the curriculum.
Year 3 Benchmark: By June 30, 2017, 90% of teaching staff will actively use online application tools, such as Google Apps for Education, ed1stop, Media Master and Edmodo and will successfully integrate these applications throughout the curriculum.

Implementation Plan

Activities	**Timeline**	**Department(s) Responsible**	**Monitoring & Evaluation**
Conduct a survey of faculty and staff to determine degree of computer use and knowledge	November 2013 Baseline, Repeat Yearly in the fall	ITS and Educational Services Departments	Survey results
Establish the Technology and Curriculum Committee (TACC) formed of Technology Teacher Leaders, representatives of Educational Services, CTO, and District Educational Technologist	January 2014	ITS and Educational Services Departments	Meeting agendas, sign-in sheets, meeting notes
Observe teacher lessons to ensure technology integration	Quarterly	ITS and Educational Services Departments	Based on observation data
Establish an educational technology homepage where best practices can be shared.	June 2014	ITS and Educational Services Departments	Homepage established

Create a comprehensive professional development plan	March 2014 and updated yearly	TACC	Approved plan
Provide on-going training and support to all teachers in the use of district assessment system	Ongoing	ITS	# of teachers trained and training feedback
Provide on-going training and support to all teachers in the use of cloud-based applications such as Google Apps for Education, ed1stop, and Edmodo	Ongoing	ITS	# of teachers trained and training feedback
Teachers and administrators will use technology resources to obtain, analyze, and present assessment data (state and local) in order to inform instruction.	Ongoing	ITS, Educational Services, and K-Adult Operations	Survey of focus group
Teachers will create classroom web pages as a means of communication for assignments, showcasing student work, and for class-wide announcements.	Begin August 2015	ITS Department, K-Adult Operations, Site Administrators	Webpages
Include technology as a standing agenda item for all elementary and secondary curriculum meetings.	Begin August 2014	Educational Services Department and K-Adult Operations	Meeting agendas
Include technology as a standing agenda item for Cabinet meetings.	Begin January 2014	Chief Technology Officer	Meeting agendas

Establish electronic communication protocol between technology and curriculum instruction.	August 2014	ITS	Documentation of protocol and samples of communications
Ensure all schools have access to Media Master and have received the professional development necessary to integrate this technology into the curriculum.	September 2017	ITS Department and K-Adult Operations	Web sites

3e. List of clear goals, measurable objectives, annual benchmarks, and an implementation plan as to how and when students will acquire technology and information literacy skills needed to succeed in the classroom and the workplace.

Goal 3e: Students will acquire and use information literacy skills and become proficient in the use of multimedia computers and Internet technologies in order to be successful navigators, communicators, collaborators, information processors, critical thinkers, and digital citizens.
Objective 3e.1: By June, 2017, students will demonstrate proficiency using technology in an educational setting and their confidence will increase based upon an annual student survey (baseline on student survey to be established May 2014).
Year 1 Benchmark: By June, 2015, students will use technology effectively, as measured by a 10% increase in the percentage of students improving their skills and satisfied with their use of technology in the classroom, on the annual student survey (baseline on student survey to be established April 2014) (conducted May 2015)
Year 2 Benchmark: By June, 2016, students will use technology effectively, as measured by a 40% increase from the baseline established in April 2014 in the percentage of students improving their skills and satisfied with their use of technology in the classroom, on the annual student survey (conducted May 2016)

Year 3 Benchmark:
By June, 2017, students will use technology effectively, as measured by an 80% increase from the baseline established in April 2014 in the percentage of students improving their skills and satisfied with their use of technology in the classroom, on the annual student survey (conducted May 2017)

Objective 3e.2:
By June 30, 2017, 100% of students will be provided with a device designed to replace the traditional textbook, installed with appropriate applications and capable of cloud-based research, collaboration, and creation both at school and at home.

Year 1 Benchmark:
By June 30, 2015, 1% of students will be provided with a device designed to replace the traditional textbook, installed with appropriate applications and capable of cloud-based research, collaboration, and creation both at school and at home.

Year 2 Benchmark:
By June 30, 2016, 30% of students will be provided with a device designed to replace the traditional textbook, installed with appropriate applications and capable of cloud-based research, collaboration, and creation both at school and at home.

Year 3 Benchmark:
By June 30, 2017, 100% of students will be provided with a device designed to replace the traditional textbook, installed with appropriate applications and capable of cloud-based research, collaboration, and creation both at school and at home.

Objective 3e.3:
By June 30, 2017, 100% of students will have attained minimum technology and media literacy skills targeting skills needed for the 21st Century.

Year 1 Benchmark:
By June 30, 2015, 10% of students will have attained minimum technology and media literacy skills targeting skills needed for the 21st Century.

Year 2 Benchmark:
By June 30, 2016, 50% of students will have attained minimum technology and media literacy skills targeting skills needed for the 21st Century.

Year 3 Benchmark:
By June 30, 2017, 100% of students will have attained minimum technology and media

literacy skills targeting skills needed for the 21st Century.

Implementation Plan

Activities	Timeline	Department(s) Responsible	Monitoring & Evaluation
Create and implement an online student technology use/knowledge survey	May 2014	ITS and Educational Services	Online survey
Teachers will be trained to guide student's use of the Internet by creating and using curriculum-based homework pages on Edmodo	Begin August 2014	ITS and Educational Services	Homework access online (*Edmodo or other appropriate web application*)
Curriculum will be developed targeting student technology literacy skills needed for the 21st Century	Begin August 2014	ITS and Educational Services	Measured by percentage of teachers using Edmodo or similar program
Create integrated curriculum which fosters a successful one-to-one implementation.	Yearly	ITS and Educational Services	Curriculum Guides
Pilot studies will take place to ensure the correct devices are chosen for the one-to-one initiative	June 2014	ITS and Educational Services	Project Schedule, timeline and findings
Encourage students to write daily and electronically communicate effectively for various purposes/audiences as defined by the Common Core State Standards.	Yearly	ITS and Educational Services	Completed student writing across the curriculum

3f. List of goals and an implementation plan that describe how the District will address ethical use of information technology so they can distinguish lawful from unlawful uses of copyrighted works, including: the concept and purpose of copyright and fair use; lawful and unlawful downloading and peer-to-peer file sharing; and avoiding plagiarism.

Goal 3f: Teachers and students will become knowledgeable about the human, cultural, and societal issues related to technology and will practice legal and ethical behavior including copyrighted work and avoiding plagiarism.

Implementation Plan

Activities	Timeline	Department(s) Responsible	Monitoring & Evaluation
Update the District's Acceptable Use Policy for Students and create an Acceptable Use Policy for Staff	August 2014	ITS and Educational Services Departments	Acceptable Use Policies
Post, distribute and enforce the District's Acceptable Use Policy for Students and Staff as well as the District's network policy.	September 2014	K-Adult Operations	Policy available in physical locations and online
Ensure teachers and students receive proper training in the use of technology and digital citizenship. (www.commonsensemedia.org)	March 2014 and yearly	K-Adult Operations and Educational Services	# of current teachers trained; training agenda and professional development calendar
Monitor students' use of the internet	Ongoing	Chief Technology Officer	Data from monitoring software

3g. List of clear goals and an implementation plan that describe how the District will address Internet safety, including how to protect online privacy and avoid online predators.

Goal 3g: All District users will be ensured online privacy. Online predators will be forbidden access via pre-screening, monitoring and the implementation of filtering software. All students and staff will be educated in how to protect their online privacy, how to avoid predators and how to respond to cyberbullying.

Implementation Plan

Activities	Timeline	Department(s) Responsible	Monitoring & Evaluation
Establish access to web sites with prescreened, appropriate, educationally relevant material that is relevant to the students' assignment or work.	Ongoing	ITS and Educational Services	Random checks and lists of web sites accessed as well as filtering software logs
Provide training about cyber-bullying and protecting online privacy (incorporated into the Implementation Plan for Goal 3f) (www.commonsensemedia.org)	Ongoing	ITS and Educational Services	Training agendas for students and # of students trained. Student survey
Continue to implement the use of a technology protection measure (filtering software), which is a specific technology that protects against access to visual depictions that are obscene, child pornography, and materials that are harmful to minors.	Ongoing	ITS	# of blocked sites and emails, student surveys

3h. Describe District policy, practices or goals that ensure equitable technology access for all students.

Goal 3h:
All students, including special education, low income, English Language Learners, and foster youth will have access to technology, including assistive devices (where appropriate), on a daily basis.

Implementation Plan

Activities	Timeline	Department(s) Responsible	Monitoring & Evaluation
Appoint representatives from special education, low income, foster youth and English Language Learners to serve on the Technology Subcommittee to ensure the needs of their students are met.	Ongoing	K-Adult Operations, ITS, and Educational Services	Dept. staff on TACC
Provide a list of locations for after-school access to technology in school community centers, libraries, or extended lab or media center hours to ensure wider access for students and parents.	Ongoing	ITS	Survey sites
Identify and post on the District website technology resources appropriate for special education, GATE, and English Language Learners.	Ongoing	ITS and Educational Services	List of available resources for special populations
Encourage all schools to provide students access to technology before and after school and in extended learning programs.	Ongoing	ITS and Educational Services	After-school program reports and evaluation

Partner with community based programs to establish after-school access to technology for parents and students.	Ongoing	K-Adult Operations, ITS, and Educational Services	After-school reports and evaluation, parents and students surveys
Partner with community based programs to establish a program to recycle computers into the homes to increase family access.	Ongoing	ITS and Community Outreach	Reports from community involvement programs
Develop and implement a one-to-one program to provide computing devices for all students	Ongoing	ITS and Bond Program	Percentage of students with devices
Form partnerships with businesses to help subsidize internet access for those students who do not have internet access at home	Ongoing	Chief Technology Officer	Board Minutes
Write grants to acquire computer equipment and adaptive software to accommodate specific needs for ELA and Special Education students	Ongoing	K-Adult Operations, ITS, and Educational Services	Spreadsheet of grants written and target population of those grants

3i. List clear goals, measurable objectives, annual benchmarks, and an implementation plan to utilize technology to make student record keeping and assessment more efficient and supportive of teachers' efforts to meet individual student academic needs.

Goal 3i: In order to make data-driven decisions and improve school management, administrators and teachers will use technology as a tool for student assessment and pupil record keeping.
Objective 3i.1: 100% of teachers and administrators will use formative/summative assessment, grading and attendance programs to help students meet their academic needs.

Year 1 Benchmark: By June, 2015, 25% of Teachers and administrators will use formative/summative assessment, grading and attendance programs to help students meet their academic needs.
Year 2 Benchmark: By June, 2016, 60% of Teachers and administrators will use formative/summative assessment, grading and attendance programs to help students meet their academic needs.
Year 3 Benchmark: By June, 2017, 100% of Teachers and administrators will use formative/summative assessment, grading and attendance programs to help students meet their academic needs.

Implementation Plan

Activities	**Timeline**	**Department(s) Responsible**	**Monitoring & Evaluation**
Collect data on PowerTeacher, PowerGrade and district assessment system.	Biannually in June and December	ITS and Educational Services	Access rates
Ensure all teachers and administrators have access to PowerSchool (SIS), and district assessment system to improve school management, including pupil record keeping and tracking related to pupil instruction and data driven decisions concerning student and school needs.	Annually by September	ITS and Educational Services	Teacher surveys
Training is provided to all teachers and administrators in the use of PowerSchool (SIS), and district assessment system.	Given several times annually on an as-needed basis	ITS and Educational Services	# of current teachers trained; training agenda and professional development

			calendar

3j. List clear goals, measurable objectives, annual benchmarks, and an implementation plan to use technology to improve two-way communication between home and school.

Goal 3j: Parent and Community Involvement: Improve home-school communications and the involvement of parents in the decision-making process at school and the District through the use of telecommunications and technology applications.
Objective 3j.1: 80% of schools will have an updated easily navigable website focusing on parent and community involvement and two-way communication.
Year 1 Benchmark: By June, 2015, 30% of schools will have an updated easily navigable website focusing on parent and community involvement and two-way communication.
Year 2 Benchmark: By June, 2016, 65% of schools will have an updated easily navigable website focusing on parent and community involvement and two-way communication.
Year 3 Benchmark: By June, 2017, 80% of schools will have an updated easily navigable website focusing on parent and community involvement and two-way communication.
Objective 3j.2: By June 30, 2017, 80% of teachers will have created a website which focuses on assignments and grades as well as two-way communication.
Year 1 Benchmark: By June 30, 2015, 10% of teachers will have created a website which focuses on assignments and grades as well as two-way communication.
Year 2 Benchmark: By June 30, 2016, 50% of teachers will have created a website which focuses on assignments and grades as well as two-way communication.
Year 3 Benchmark: By June 30, 2017, 80% of teachers will have created a website which focuses on assignments and grades as well as two-way communication.

Objective 3j.3: By June 30, 2017, 100% of parent email addresses and cell phone numbers will be recorded in our Student Information Management System so that alerts, attendance or other news bulletins can be sent using the district auto-dialer system either through text or email.
Year 1 Benchmark: By June 30, 2015, 30% of parent email addresses and phone numbers will be recorded in our Student Information Management System so that alerts, attendance or other news bulletins can be sent using the district auto-dialer system either through text or email.
Year 2 Benchmark: By June 30, 2016, 60% of parent email addresses and phone numbers will be recorded in our Student Information Management System so that alerts, attendance or other news bulletins can be sent using the district auto-dialer system either through text or email.
Year 3 Benchmark: By June 30, 2017, 90% of parent email addresses and phone numbers will be recorded in our Student Information Management System so that alerts, attendance or other news bulletins can be sent using the district auto-dialer system either through text or email.

Implementation Plan

Activities	**Timeline**	**Department(s) Responsible**	**Monitoring & Evaluation**
Provide training to all school administrators as well as one to two staff members per site (as designated by the school principal) on creating effective school websites using Schoolwires.	By June 2015	ITS and Educational Services	Training agendas, sign-in sheets, evaluations

Ensure all schools have web sites that provide for two-way communication, interactive activities and school information (list of teachers, phone numbers, e-mail addresses, homework information, etc.)	By December 2015	ITS	Observation
Provide training to school personnel in the effective use of district auto-dialer system	By August 2014	ITS and Community Engagement Office	Training agendas, sign-in sheets, evaluations
Continue using district auto-dialer system to record, schedule, send, and track personalized voice messages to students, parents, and staff.	Ongoing	ITS and K-Adult Operations	Frequency of and reason for using auto-dialer, by site
Provide online reporting of student grades and attendance in real time.	Starting in August 2014	ITS	Online reports
Provide community access to athletic events and other school event calendars.	Starting in January 2014	ITS	Online calendars
Provide online access to food service menus, student account balances and history of purchased meals.	Starting in August 2014	ITS, Food Services	Online access to nutrition and food information
Provide access to up-to-date information on bus schedules and routes.	Ongoing	ITS, Community Engagement Office, K-Adult Operations	Online access to transportation information

Encourage District and schools to strengthen partnerships with parents, community organizations, educational institutions, the business community, and city/county agencies, with the goal of expanding opportunities in technology for our students.	Ongoing	ITS, K-Adult Operations, and Community Engagement Office	Survey

3k. Description of the process that will be used to monitor whether the strategies and methodologies utilizing technology are being implemented according to the benchmarks and timeline.

West Contra Costa USD is dedicated to promoting high standards in curriculum, instruction and accountability for all staff and students. The implementation of the technology plan will be successful through the combined efforts of the Teaching & Learning and Technology Divisions toward the common goal of improved learning for all students.

The evaluation of the impact on learning of the Education Technology Plan will be aligned with the evaluation of WCCUSD's strategic plan. There are two types of student learning that are included in the technology curricular goals and benchmarks.

The first type of goal involves student learning in the curricular areas. We will use a variety of normed and criterion based assessments to evaluate the impact of the technology plan on student curricular achievement.

The second type of goal is directed toward student use of and competence with technology. This will be measured by teacher surveys and examples of student work.

The degree to which the technology is integrated into the learning environment, and supports classroom and school management, will be measured using indicators such as student-computer ratios, teacher surveys and classroom observations of student engagement with technology resources.

Schedule for Evaluating Technology Use

Area of Focus	Evaluation Instrument(s) & Data To Be Collected	Frequency of Collection
Student Learning (Academic)	**Standardized Tests** Smarter Balance Assessments High School Exit Exam scores	March - August
Student Learning (Use & Technology Competence)	**Classroom Curriculum focusing on Technology Skills** Student use will increase as measured by curriculum integration and skills classes. Student projects **Classroom Observations by Principals and technology teacher leaders**	April – May Dec. 2015 Starting August 2014
Learning Environment	Curriculum content Network monitoring survey: Percentage of administrators' use of technology Percentage of student use of technology	April – May January - March
Professional Development	**Technology Assessment Profile** 1. Computer Knowledge and Skills 2. Technology Integration Skills 3. Personal Use **Workshop Evaluations** 1. Effectiveness of trainings	August – May At conclusion of each professional development course

Infrastructure, Hardware, etc.	SBAC Network monitoring survey: *Number, location and age of instructional computers •Number of computers connected to Internet via permanent connection •Number of classrooms connected to Internet by permanent connection •Length of time for hardware repair •Length of response time for technical support •Number of school site technical support •Type of emerging technologies *Type of each schools' Internet connection •Speed of each schools' Internet connection •Number of District Office FTEs for technical support positions •Number of hours per week for District Office contracted technical support staff or volunteers •Number of District Office FTEs for curriculum support for technology use • Electrical capacity	January - March

The following data will also be collected and analyzed to gauge success in implementation.

Evaluation Reporting and Plan Modification

The District will conduct an ongoing formative evaluation and assessment of progress towards the goals to inform decision making and professional development, and to make mid-course corrections in implementation.

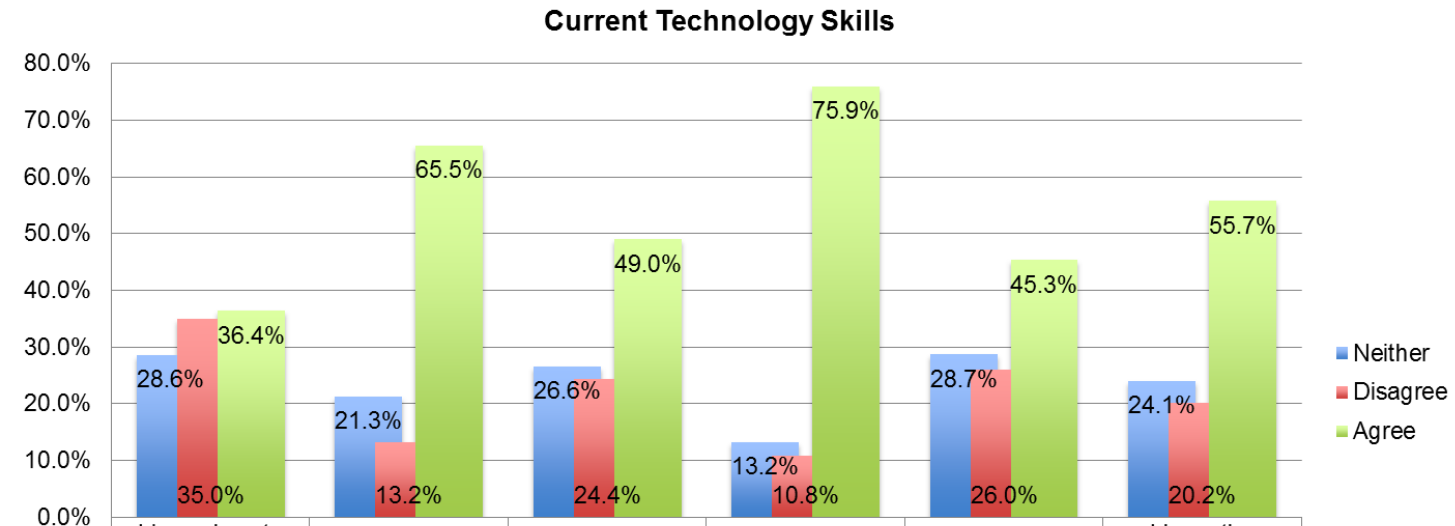
The Chief Technology Officer, K-Adult Operations, and the Associate Superintendent for Operations, have primary responsibility for overseeing the implementation of the plan components and will provide qualitative and quantitative data based on the instruments describe in each component section. Once a year, the status of progress toward the Educational Technology Plan goals will be reported to the Cabinet, the Technology Subcommittee and the Board. This group will determine the overall effectiveness of the plan and assess the need to adjust or modify the activities, timelines, and budgets.

The Technology Subcommittee will prepare an implementation status report on the progress toward the plan goals and the completion of activities and submit the report and budget recommendation to the Superintendent on an annual basis.

4. PROFESSIONAL DEVELOPMENT COMPONENT

4a. Summary of the teachers' and administrators' current technology skills and needs for professional development.

In November, 2013, a survey was conducted among all certificated staff. 85% of staff responded and reported the following:



	I know how to solve my own technical problems.	I can learn technology easily.	I keep up with important new technologies.	I frequently use technology in my personal time.	I know about a lot of different technologies.	I have the technical skills I need to use technology.
Neither	28.6%	21.3%	26.6%	13.2%	28.7%	24.1%
Disagree	35.0%	13.2%	24.4%	10.8%	26.0%	20.2%
Agree	36.4%	65.5%	49.0%	75.9%	45.3%	55.7%

The entire survey is included in Appendix A.

Administrators and staff have participated in staff development that includes computer use training in email, District assessment system, Connect-ED, and curriculum integration, albeit to various levels of depth and degrees of success. A number of middle school members have participated in training activities using software that targets the state standards in math and, more specifically, Algebra, as part of the Enhancing Education Through Technology (EETT) competitive grant awarded to the District by the CDE. All teachers also have access to Ed1Stop, the web portal provided by the Contra Costa County Office of Education.

Staff development needs are around the use of productivity software and integration of technology into lesson plans that are aligned with WCCUSD goals and state standards. Teachers also expressed a need to learn how to access instructional resources online for use in their classrooms. There is an ongoing need to train new teachers that are hired each year and are not familiar with technology in the WCCUSD. Needs also include training with District assessment system to conduct classroom-based assessment and further training in the use of Ed1stop.

4b. List clear goals, measurable objectives, annual benchmarks, and an implementation plan for providing professional development opportunities based on the needs assessment and the Curriculum Component objectives (sections 3d – 3j).

Benefits of effective professional development:

- Integration of technology throughout the curriculum
- Increased use of all technologies
- Increased competence, and therefore confidence, in the use of technology
- Opportunities for teachers to reflect and meaningfully collaborate with peers
- Opportunities to learn how to assess student products created using technology
- Increased teacher creativity and renewal.

Goal 4b: Teacher Technological Proficiency: All staff will become personally proficient in the use of technology to include basic operations of various technologies, personal computer productivity tools, technology literacy applications and the effective use of Internet tools and resources.
Objective 4b1: 100% of teachers and administrators will learn, or improve their skills in technology operations and concepts in alignment with the District technology plan as measured by the EdTech Profile Survey.
Year 1 Benchmark: By June, 2015, 50% of teachers and administrators will learn, or improve their skills in technology operations and concepts in alignment with the District technology plan as measured by the EdTech Profile Survey.

Year 2 Benchmark:
By June, 2016, 75% of teachers and administrators will learn, or improve their skills in technology operations and concepts in alignment with the District technology plan as measured by the EdTech Profile Survey.

Year 3 Benchmark:
By June, 2017, 100% of teachers and administrators will learn, or improve their skills in technology operations and concepts in alignment with the District technology plan as measured by the EdTech Profile Survey.

Objective 4b2:
100% of Teachers will improve their skills in integrating technology into the curriculum and supporting student achievement as measured by evidence indicated on the EdTechProfile section, “Using Technology in the Classroom.”

Year 1 Benchmark:
By June 2014, 50% of Teachers will improve their skills in integrating technology into the curriculum and supporting student achievement as measured by evidence indicated on the EdTechProfile section, “Using Technology in the Classroom.”

Year 2 Benchmark:
By June, 2015, 75 % of Teachers will improve their skills in integrating technology into the curriculum and supporting student achievement as measured by evidence indicated on the EdTechProfile section, “Using Technology in the Classroom.”

Year 3 Benchmark:
By June, 2016, 100% of Teachers will improve their skills in integrating technology into the curriculum and supporting student achievement as measured by evidence indicated on the EdTechProfile section, “Using Technology in the Classroom.”

Objective 4b3:
100% of teachers and administrators will learn, or improve their skills in assessment and evaluation of student learning as measured by weekly usage of reports in District assessment system.

Year 1 Benchmark:
By June, 2015, 50% of teachers and administrators will learn, or improve their skills in assessment and evaluation of student learning as measured by weekly usage of reports in District assessment system.

Year 2 Benchmark: By June, 2016, 75% of teachers and administrators will learn, or improve their skills in assessment and evaluation of student learning as measured by weekly usage of reports in District assessment system.
Year 3 Benchmark: By June, 2017, 100% of teachers and administrators will learn, or improve their skills in assessment and evaluation of student learning as measured by weekly usage of reports in District assessment system.

Implementation Plan

Activities	**Timeline**	**Department (s) Responsible**	**Monitoring & Evaluation**
Conduct a survey (EdTech Profile) of faculty and staff to determine degree of computer use and knowledge	November 2013 Baseline, Repeat Yearly in March	ITS and Educational Services	Survey results
Ensure that 14% of Common Core funds are used for professional development in technology	Ongoing	ITS and Educational Services	Use of Common Core funds, fiscal reports
Train administrators and support staff to understand how technology can be used in the Common Core classroom	Starting in January 2014	ITS, Educational Services	Survey staff to determine knowledge level
Provide basic, intermediate and advanced training in Microsoft Office including Word, Excel, PowerPoint and Outlook Express.	Starting in January 2014	ITS, Educational Services	Survey site administrators

Use EdTechProfile survey to inform professional development needs.	Starting in November 2013	ITS, Educational Services	EdTechProfile results, training agendas, and online professional development calendar
Identify in-school experts or “lead learners” who become mentor teachers and assist colleagues with new programs or ongoing learning	Starting January 2014	ITS, Educational Services, Principals	Survey sites for information
Technology teacher leaders are provided additional training to present to their colleagues at the sites	Starting March 2014	ITS, Educational Services	Training agendas, sign-in sheets, evaluations
Technology teacher leaders act as front runners in designing in-classroom learning activities and then share their learning with their colleagues in school and across the District via wiki/blog sites set up by the District	Starting March 2014	ITS, Educational Services	Wiki/blogs
Provide opportunities for professional development online or via distance learning	Starting January 2014	ITS, Educational Services	access to online courses through district website
Encourage teacher access to electronic resources via the EdTech Resource Website/Wiki.	Ongoing starting January 2014	Educational Services	usage statistics
Tech mentors trained to serve as technology coordinators at each school	Starting January 2014	ITS, Educational Services	# of mentors, by site

Schedule and offer District assessment system trainings several times throughout the school year as needed.	Ongoing	Educational Services	Training agendas, sign-in sheets, evaluations

4c. Description of the process that will be used to monitor the Professional Development (Section 4b) goals, objectives, benchmarks and planned implementation activities including roles and responsibilities.

Evaluation Instrument(s) & Data To Be Collected	Frequency of Collection	Process to Monitor
EdTechProfile Technology Skills Survey: ● Teacher technology proficiencies ● Teacher instructional use	Annually	Each quarter Cabinet will review data and make adjustments to the type and frequency of PD opportunities as well as provide reports to the Board of Education.
Sign-in Sheets: ● Number of attendees	Each professional development opportunity	Data Collected, aggregated and disseminated by Technology Department.
Workshop Evaluations: ● Effectiveness of trainings	Each professional development opportunity	Data Collected, aggregated and disseminated by Technology Department.
Site Plans with Technology embedded: ● Goals and Implementation Activities and Strategies	Annually	Data Collected, aggregated and disseminated by Technology Department.
District assessment system Usage: ● Reports	Semi-Annually	Data Collected, aggregated and disseminated by Technology Department.

5. INFRASTRUCTURE, HARDWARE, TECHNICAL SUPPORT AND SOFTWARE COMPONENT.

5a. Describe the existing hardware, Internet access, electronic learning resources, and technical support already in the District that will be used to support the Curriculum and Professional Development Components (sections 3 & 4) of the plan.

Introduction: The WCCUSD Unified School District network supports schools in El Cerrito, Richmond, San Pablo, Hercules, Kensington, El Sobrante, Pinole and unincorporated areas in west Contra Costa County which includes 18 Pre-Schools, 1 Special Education Pre-School, 1 Special Education Adult School, 34 Elementary Schools, 6 Middle Schools, 2 K-8 Schools, 7 High Schools, 3 Alternative and Continuing High Schools, 2 Adult Education sites, 9 Operations Sites and 8 Charter Schools. The District technology infrastructure supports more than sixty sites and over thirty-five thousand administrative, teacher and student users.

Hardware: There are 10,000 instructional and 500 support staff computers. There is disparity in the deployment of technology, resulting in significant variations in the student to computer ratios from school to school. Currently, the funding of computer replacement and upgrades is left to the District, through the use of Bond funds, and the individual schools. The entire computer inventory can be found in Appendix B

Infrastructure: Within the geographically diverse District, all schools are connected to the wide area network for Internet access and District network services with a Gigaman connection to the District Office, although some distant operations facilities still have a T1 connection. CCCOE provides a 250 MB connection to the Internet. Many projects are underway to modernize the District infrastructure, security and management systems. Wireless infrastructure will be available at all sites by August 2014. The District's infrastructure was originally created in the early 1980's and, like other Districts in the state; the infrastructure became a patchwork of technologies and solutions over time. In November 2006 the District commissioned a major assessment of the District's infrastructure and technology management systems. The following major projects are underway to implement the report's recommendations, supported by Measure J and E Bond funds, e-rate, and California Telecommunications Fund discounts:

- Implementation of a new Data Center using Cisco UCS blade servers to replace and consolidate older datacenter/servers.
- Deployment of a new storage area network (SAN)
- Increase wide area network speed from 1 Gbps to 10 Gbps for all sites
- Deployment of wireless technology at all District sites
- New Financial, HR and Payroll System (Munis)
- Network monitoring and security management
- Surveillance system
- Continued deployment of District-wide VOIP to replace current phone system
- Increased internet bandwidth connection to CCCOE to 1 Gigabit

Electronic Learning Resources: As outlined section 3b. The schools now use a wide range of electronic learning resources, including stand-alone software, server-based resources and web-based resources. Reliance on instructional resources will continue to increase, especially with the new textbook adoptions that include full motion and interactive electronic resources as an integral part of the new curriculum. The District also utilizes a range of programs to manage instructional services, such as online textbook and library management systems, READ 180 and Everyday Math. In addition to the full motion video and interactive applications on these electronic resources, the California K-12 High Speed Network now makes available two-way video conferencing, distance learning, and interactive educational projects, such as the Monterey Bay Aquarium oceanic research projects for students.

The District's basic operations are dependent on a wide range of electronic business applications that include modules for finance, human resources, payroll, accounts payable, accounts receivable, purchasing, warehouse operations, student information systems, food services, substitute system, email, phones, and calling system.

Physical Plant: Several WCCUSD schools have completed modernization work that included upgrades of electrical systems to meet increasing technology deployment. However, the District will continue to monitor electrical capacity as demand increases over time. School Main Distribution Frames (MDF's) and Intermediate Distribution Frames (IDF's) have been secured to meet earthquake standards, and electrical and switching devices are located in secure closets and comply with safety standards. However, the 2006 assessment of the District computing facilities identified a number of environmental concerns associated with its basement location, including climate control, potential water and sewer threats and asbestos pipe coverings.

Technical Support: The Technology Department consists of twenty-seven staff under a Chief Technology Officer, who reports directly to the Superintendent. District-wide technical support is provided as follows:

- Eleven FTEs provide Network Operations, Data Center, Telecommunications and Site Operations technical support,
- Six FTEs provide desktop technical support to more than 10,000 instructional and administrative computers,
- Six FTEs support the Student Information System, attendance, and regulatory reporting processes,
- One FTE supports office clerical,
- Three FTEs provide Data support.
- One FTE supports staff development/curriculum integration

Substitute technicians are used frequently, which is a practice that needs to be replaced by hiring full-time employees. At this time, the ratio of technicians to sites is 1:10.

5b. Describe the technology hardware, electronic learning resources, networking and telecommunications infrastructure, physical plan modifications, and technical support needed by the District's teachers, students, and administrators to support the Curriculum and Professional Development Components of the plan.

Introduction: The Curriculum Components (3c) identified the focus areas for 2008-2010 and continuing through 2011-2017, emphasized:

- Access to rigorous, standards-based content for all students, with a focus on the EL, foster youth, special education and low income population, through differentiated instruction, early interventions, early accelerations and early preventions.
- Equitable access to electronic tools that support critical thinking skills and collaborative learning.

The implementation of these goals is through a program of ongoing professional development and teacher collaborations (Professional Development Component 4b.), including:

- The systematic approach to the use of data to implement a coherent and sequential program of teaching and learning,
- The development of technology proficiency,

- The integration of technology across the curriculum,
- Increase in the use of technology to better differentiate instruction.

Students and teachers must have equitable and ready access to the electronic learning resources that are integral to the District adopted curriculum, and that support individualized instruction, early intervention, acceleration and prevention. Teachers must have ready access to relevant student data that now resides on District business and student information systems. Teachers must be able to participate in a variety of "just-in-time" professional development trainings that fit into their schedules, and that supplement and reinforce face-to-face training. Teachers and students need to have access to tools that support collaborations. This access depends on the following conditions being met:

- A standardized set of instructional hardware in each classroom, library/media center and school wide. At this time, all teachers are equipped with document cameras, LCD projectors and laptops. This practice should continue and expand as new technologies become available.
- Up-to-date computers with sufficient speed and memory to support the interactive and full motion video software and electronic learning resources that are now integral to the new curriculum adoptions,
- A minimum ratio of one student to one computing device for a ratio of 1:1.
- Robust, reliable wireless and wired networks capable of supporting voice, video and data to meet both instructional and operational support needs,
- Student and business data systems that interface with one another,
- Consistent, well defined policies and procedures for the selection of electronic learning resources.

Hardware*:* To ensure equitable access to the District's adopted curriculum and to encourage regular student and teacher use of these resources, computers must be both robust and reliable. The technology plan calls for the following:

Computer Replacement: The district is in the process of considering the adoption and budgeting for a policy to replace instructional computers on a minimum cycle of five years. A "one to one" policy to provide each student with a device is also being planned. This plan would include a five-year refresh cycle to ensure students continue to have access to current technology.

Standards and Baseline Technology: The District should continue to set standards for all hardware and identify a baseline technology that should be deployed in each classroom, library media center and school as a whole. The baseline would be driven by the District's instructional goals and the goals and strategies outlined in the

Curriculum and Professional Development components and would define the minimum set of tools that each student and teacher needs to access. The concept of a baseline instructional technology package supports the standards-based curriculum, ensures equity of access for all students, promotes more effective professional development and reduces total cost of ownership, including technical support needs.

Hardware Purchases: The Technology Department should be involved in the identification of the baseline technology and should review all hardware purchase orders to ensure they meet the standards, are appropriate for the intended use, are consistent with the baseline technology needs, are compatible with existing infrastructure and are cost effective.

Moving the Datacenter: With the installation of 10 Gbps fiber in 2014, the datacenter should be moved from the District Office basement to the new ITC building.

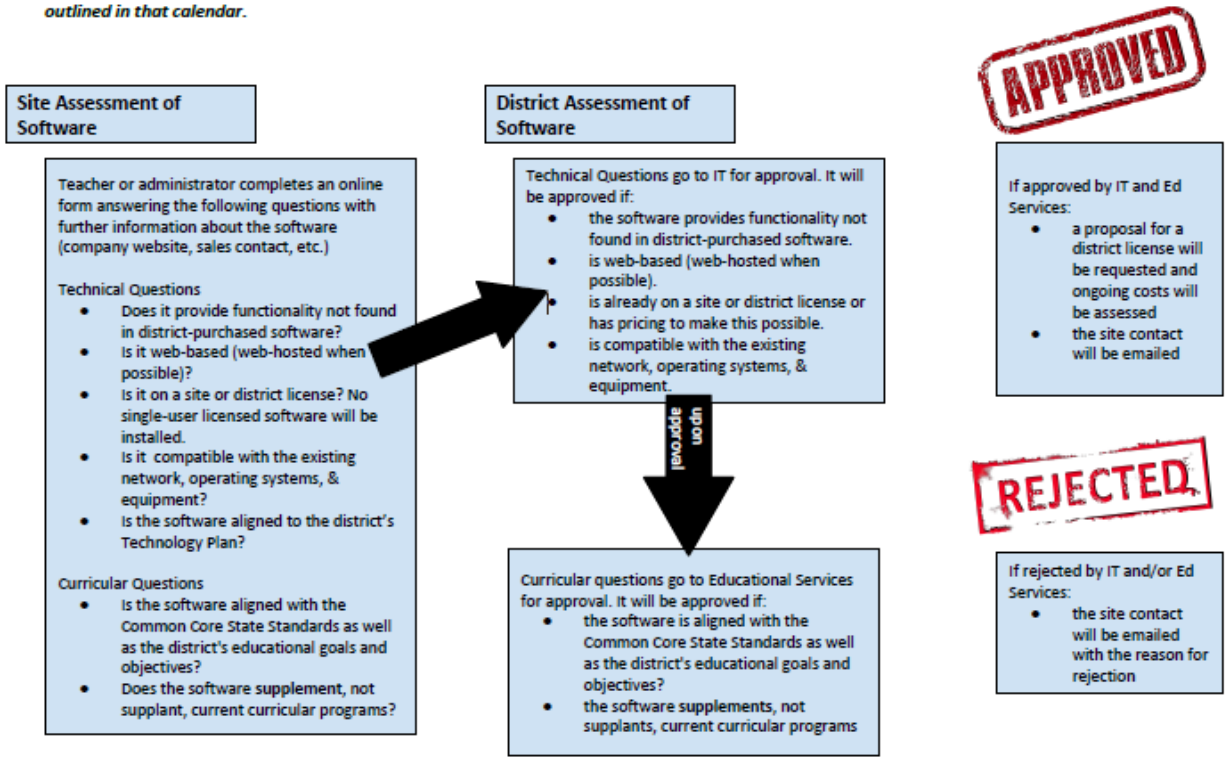
Electronic Resources:

Software Review Policy: The District's software review policy should be reviewed to ensure that:

- The guidelines are aligned with the District's curriculum focus areas for 2014-2017.
- The District's existing hardware and infrastructure support the proposed software,
- There is appropriate professional development associated with the deployment of any electronic instructional resource,
- Technical support needs have been identified.

Software Approval Procedure 2013-14

This approval process applies to all applications and software for any device (computer, tablet, etc.) purchased and supported by the district. The process also applies to approval of website subscriptions for student usage. The purchase of the above listed items will not be reimbursed if this approval procedure has not been followed. Software approvals will follow the purchasing calendar. All site assessments must be completed by the dates outlined in that calendar.



Website: The Technology Department should develop recommendations for the posting and maintenance of all District and school pages, including any needed changes in the web tools, roles and responsibilities and timelines.

Technical Support: The District needs to undertake a number of steps to reduce the total cost of ownership (TCO), including the costs of technical support, including:

- Continue to require three year, on-site, next day warranties on all computers and other hardware as appropriate,
- Migrate to web-based electronic resources whenever possible to reduce costs of deployment and maintenance,
- Enforce standards for all hardware,
- Establish a computer replacement policy,

- Establish a policy that would place limits on the age of computers that Technology Services will be required to support,
- Complete the Technology Bond funded infrastructure projects to improve reliability and security of the network and to enable centralized deployment, management and maintenance of the electronic resources and networked hardware.

5c. List of clear annual benchmarks for obtaining the hardware, infrastructure, learning resources and technical support required to support the other plan components.

Goal 5c1: Hardware All students and teachers will have access to up-to-date computers, and have a standardized baseline of technology at each school to support the District adopted curriculum.
Objective 5c1.a: All students and teachers will have increased access to up-to-date computers and a standardized baseline of technology at each school to support the District adopted curriculum, by 100% as measured by an automated network monitoring and identification method.
Year 1 Benchmark: All students and teachers will have increased access to up-to-date computers and a standardized baseline of technology at each school to support the District adopted curriculum, by 30% as measured by an automated network monitoring and identification method.
Year 2 Benchmark: All students and teachers will have increased access to up-to-date computers and a standardized baseline of technology at each school to support the District adopted curriculum, by 60% as measured by an automated network monitoring and identification method.
Year 3 Benchmark: All students and teachers will have increased access to up-to-date computers and a standardized baseline of technology at each school to support the District adopted curriculum, by 100% as measured by an automated network monitoring and identification method.

Implementation Plan

Activities	Timeline	Person(s) Responsible	Monitoring & Evaluation
Adopt a five year computer replacement plan and budget	April 2014	Chief Technology Officer	Board Policy, Administrative Regulation published
Develop an annual deployment plan.	August 2014, annually	Chief Technology Officer	Plan submitted to Cabinet
Replace/purchase computers for a student to computer ratio of 1:1 (Budget Permitting)	July 2015 2016 2017	Chief Technology Officer	Student Information Management System and Monitoring Tools

Objective 5c1.b:
100% of all sites will have the wireless capacity to support a 1:1 mobile computing environment with a 10 Gbps backbone to the core.

Year 1 Benchmark:
By June 2015, 60% of all sites will have the wireless capacity to support a 1:1 mobile computing environment with a 10 Gbps backbone to the core.

Year 2 Benchmark:
By July 2016, 80% of all sites will have the wireless capacity to support a 1:1 mobile computing environment with a 10 Gbps backbone to the core.

Year 3 Benchmark:
By July, 2017, 100% of all sites will have the wireless capacity to support a 1:1 mobile computing environment with a 10 Gbps backbone to the core.

Implementation Plan

Activities	Timeline	Person(s) Responsible	Monitoring & Evaluation
Identify areas which need wireless connectivity	March yearly	Chief Technology Officer	List published
Create RFP for cabling infrastructure and devices	September 2014 and yearly as classrooms increase	Chief Technology Officer	RFP published
Develop and present to Board a funding plan to implement the wireless technology	November 2014	Chief Technology Officer and Cabinet	Board minutes
Create RFP for 10 Gbps backbone	ERATE Year 2014-2015	Chief Technology Officer	RFP published
Develop and present to Board a funding plan to implement the 10 Gbps backbone	March 2014	Chief Technology Officer	Board Minutes

5d. Description of the process that will be used to monitor annual benchmarks including roles and responsibilities.

Evaluation Instrument(s) & Data To Be Collected	Frequency of Collection	Process to Monitor
EdTech Profile Survey	August, 2014 Annually	Each quarter the Chief Technology Officer and staff will review synthesized and analyzed data and make adjustments to the deployment plans and provide reports to the Superintendent and to the Board of Education as directed.

Work Orders	Monthly	
System reports	Ongoing	
Reports to the Superintendent	Quarterly	

6. FUNDING AND BUDGET COMPONENT

The purpose of the Funding and Budget Component is to identify the five year budget that will support:

- The District's technology investment.
- The upgrade of the District network infrastructure and telephone system.
- The replacement of obsolete computers.
- More efficient technical management and support.
- The adopted District and technology embedded site plans.

6a. List established and potential funding sources.

(Please see the column titled "Existing and Potential Funding Sources" of the table in 6b. below.)

6b. Estimate annual implementation costs for the term of the plan.

Currently, the WCCUSD has provided funding for technology through a variety of sources: General funds, E-Rate, categorical funds (soon to be replaced with the new Local Control Funding Formula (LCFF), bond funds, state and federal grants, and community and business partnerships. The passage of bond measures was essential to the upgrades to the District's voice and data infrastructure and to the schools' electrical capacity and other school modernization initiatives. However, it is important to note that the District will have to seek additional bond measures to complete the upgrades and modernization for all schools.

Schools use allocated site funds, primarily categorical funds and one-time money, to provide hardware, software, technical support, and technology resource teachers in support of the technology embedded site plans.

Year 1 costs of implementing the plan reflect the FY 2014 – FY 2017 budgets to support both instructional and operational technology,

Component	Year 1 2014-2015	Year 2 2015-2016	Year 3 2016-2017	Existing and Potential Funding Sources
Instructional Technology Curriculum/ PD				
Assessment System Technology Integration Specialists for curriculum integration (1 per each 6 schools) (TOSAs or equivalent – 2 per year) Teacher Leaders	$300,000 $160,000 $200,000	$200,000 $320,000 $200,000	$200,000 $480,000 $200,000	CCSS Funds LCFF General funds
Technical Support				
Technology Staff	$3,000,000	$3,000,000	$3,000,000	General Funds
Electronic Resources				
Software • Electronic Resources	$100,000	$100,000	$100,000	Textbook Instructional Media School site funds LCFF Funding
Operational Technology				
Infrastructure 10 Gig Network, VOIP,	$4,200,000	$3,500,000	$3,500,000	E-Rate, Bond, General Funds

Wiring, Router and Switch maintenance, CCCOE Internet Connection				
Hardware Instructional Computer (and replacement plan) Administrative Computer Replacement Plan Other computers and printers from school budgets	$6,000,000 $100,000	$6,000,000 $100,000	$6,000,000 $100,000	General Fund, Bond & Future Measures, LCFF Bond Funds Categorical LCFF
Software Licenses PowerSchool, Munis, Connect Ed, School Dude, Read 180, Tech licenses	$971,000	$971,000	$971,000	General Funds, LCFF
Contracted Services Infrastructure Support	$150,000	$150,000	$150,000	General Funds

6c. Describe the district's replacement policy for obsolete equipment.

The Technology Department has drafted a plan for the replacement of instructional computers that recommends the following:

- The district will maintain a minimum ratio of students-to-instructional computer of 1:1.
- The district will replace the instructional computers needed to maintain the target student-to-computer ratios on a five-year cycle.
- All new computers will continue to be purchased with a three-year warranty that includes next day, on-site repair.
- The District will repair a computer during the fourth and fifth year of life as long as the cost of repair does not exceed 25% of the replacement value of the

computer. Computers that are older than five years may not be maintained by the district and may be declared surplus. If the site opts to retain equipment longer than five years, the maintenance and support of this equipment will be the individual site's responsibility. (See also Section 5b)

6d. Describe the process that will be used to monitor Ed Tech funding, implementation costs and new funding opportunities and to adjust budgets as necessary.

The district has developed a number of strategies to improve support and control costs:

- **Upgrade Voice and Data Network Infrastructure:** The major investment in the upgrade of the district WAN and LAN, including the deployment of the VOIP, will not only increase capacity and services and improve efficiencies and reliability of operations, but will cut technical support costs and support the addition of future instructional and operational services at minimal costs to the district.

- **Automated Systems** to monitor and manage the network, audit and inventory resources, and streamline financial, student, and human resource systems.

- **Purchasing Discounts**: The district uses State Approved Contracts and other discount purchasing options for technology and applies for e-rate and the California Telecommunications Fund (CTF) annually. The district regularly monitors the invoices for telephone and telecommunication services to ensure that all CTF and E-rate discounts are received.

- **Computer Replacement Plan:** The Technology Department has implemented a recycling plan to eliminate obsolete, high-maintenance computers.

- **Warranties:** The district requires the purchase of three year warranties and full service leases for all technology acquisitions.

- **Standardization**: The Technology Department has developed standards for all instructional and administrative hardware and software.

- **Training Site Staff:** Training site staff in the use, maintenance and basic troubleshooting of systems and hardware.

- **Professional Development**: The District is moving away from the relatively high cost outside Institutes and workshops to site-based professional development during the school day, using site-based coaches and early release days, reducing the costs of stipends and extended pay for teachers.

7. MONITORING AND EVALUATION COMPONENT

7a. Describe the process for evaluating the plan's overall progress and impact on teaching and learning.

Expected Outcomes:

· Determine the impact of technology use on student learning
· Measure levels and types of student and teacher use
· Determine what technology uses have the most of benefits for students
· Monitor status of implementation as planned.
· Revise plan timeline and activities on an on-going basis

The District will develop strategies to assess the impact of a standards-based technology embedded curriculum, taught by well trained teachers, on student achievement.

Throughout the three years of this plan, the Technology Subcommittee will meet monthly and serve as a forum for: 1) determining if the plan is being implemented, and 2) determining the impact of the plan on student learning.

During the first year, quarterly reporting processes will be established in order to develop an Implementation Checklist for the plan's components. This checklist will assess progress towards achieving total implementation of the plan activities and strategies. Cabinet level staff or designees responsible for overseeing the plan components will provide qualitative and quantitative data based on the instruments describe in each component section. Teacher and administrative surveys will be used to determine the impact of the plan on student learning. Please refer to the Curriculum, Professional Development, and Infrastructure, etc. components for the details of the instruments for data collection and analysis.

The Technology Advisory Committee will use the data to determine the overall effectiveness of the plan and to assess the need to adjust or modify the activities, timelines, and budgets. The committee will prepare an implementation status report on the progress toward the plan goals and the completion of activities and submit the

report and budget recommendation to Superintendent and the West Contra Costa Unified School District Board of Education on an annual basis.

7b. Schedule for evaluating the effect of plan implementation

Implementation of the Plan:
The District will conduct an ongoing formative evaluation and assessment of progress towards the goals to inform decision making and professional development, and to make mid-course corrections in implementation.
(Please also see Section 7c. below.)

7c. Describe the process and frequency of communicating evaluation results to tech plan stakeholders.

Evaluation Instrument(s) & Data To Be Collected	Frequency of Collection	Process to Monitor
Durable Goods Reports	Quarterly	Each year the Chief Technology Officer will prepare an Annual Action Plan based on the Technology Plan and available funding. The CTO will prepare progress reports and financial summaries on the implementation of the Action Plan for members of Cabinet. Based upon feedback, modifications will be made to the plan as needed.
District Financial Expenditure Reports	Monthly	
Automated Management System reports	Ongoing	
Reports to the Superintendent	Quarterly	

8. EFFECTIVE COLLABORATIVE STRATEGIES WITH ADULT LITERACY PROVIDERS TO MAXIMIZE THE USE OF TECHNOLOGY

8a. If the district has identified adult literacy providers, describe how the program will be developed in collaboration with them.

When originally creating the West Contra Costa Unified School District Educational Technology Plan, the plan required the collaboration between District stakeholders and community stakeholders. The stakeholder team that was assembled consisted of representatives from all District divisions and major departments including the Adult Education department. An Adult Education representative will continue to participate on the District Technology Advisory Committee and provide input for needs assessment, development process, and the implementation process of the technology plan.

The WCCUSD Adult Education (WCCAE) is the main adult literacy provider for the District. The service is provided through English and a Second Language and Adult Basic Education programs on two campuses in the District as well as on a number of local school sites (elementary through high school). On Adult School campuses, WCCAE offers a wide array of adult education and training programs that include hard skills such as keyboarding, computer literacy, computer repair and GED classes, as well as so-called soft skills such as effective parenting, family budgeting and finance, support groups for parents and more. Literacy and technology are either offered as core courses--computer basics, computer applications (word processing, financial and graphics/layout), computer programming--or infused in classes covering other areas such as family literacy, job training and job development activities (e.g. résumé preparation), ESL, and GED preparation. On school sites, WCCAE offers the same services during the school day and/or during after-school and evening hours within programs such as the 21st Century Community Learning Centers and the Before and After-School Safe Learning and Safe Neighborhoods grant programs.

Further, adults have access to technology through several existing programs. The Regional Occupational Program (ROP) offers a variety of computer training opportunities such as Computer Assisted Drafting, Computer Applications, Computer Basics for English Language Learners, Computer Data Entry, Computer Graphic/Layout Artist, Computer Troubleshooting, Computerized General Accounting Clerk, Network Cabling Technology, and Medical Computerized Insurance Billing. These free classes are open to all residents of West Contra Costa USD, who are at least 16 years old. Classes are offered mornings, afternoons, evenings, and Saturdays at ROP centers and high school campuses. This flexible training program provides citizens within the community with career guidance, hands-on training, and job placement assistance to help ensure success.

Through the West County Reads Literacy campaign, WCCUSD has combined efforts with a large number of community organizations providing literacy support throughout the District communities, including family literacy programs. The WCCUSD also partners with the City of Richmond's Literacy for Every Adult Program (LEAP). LEAP, funded through the California State Library through its English Language and Literacy Intensive (ELLI) and the Families for Literacy (FFL) programs, is part of the City of Richmond's Employment and Training Department and has been active for over 17 years with a mission to "help adults acquire the necessary skills in reading, writing, mathematics, and communication in English, to achieve their goals and enhance their quality of life."

The District will continue to mobilize the resources of partners to meet the needs in adult literacy. In addition, the District is committed to pursuing funding opportunities such as the 21st Century Community Learning Center Grant and Community Technology Centers Grant that will enable us to leverage resources and expand our ability to serve the adults in our community.

9. EFFECTIVE, RESEARCHED-BASED METHODS AND STRATEGIES

9a. Summarize the relevant research and describe how it supports the plan's curricular and professional development goals.

West Contra Costa's philosophy is that the use of technology should be integrated into the curriculum at all levels in order to improve student achievement. Technology should not be a separate content taught for its own sake. Technology improves student performances when the application directly supports the curriculum objectives being assessed. Alignment of project or lesson content with state content standards is an important first step to infusing technology into the curricula.

A survey of 465 teachers in California resulted in 92% affirming that the first step in infusing technology into the curriculum is having information about the specific content of a program or use of an application that aligns with state-adopted curriculum standards. A number of respondents indicated that an online resource that profiles electronic learning resources with the specific skills in knowledge areas that align with content standards would help them select programs that will facilitate curriculum integration with technology (Cradler & Beuthel, 2001).

In an ACOT study, student engagement remained highest when technology use was integrated into the larger curricular framework, rather than being an "add-on" to an

already full curriculum (Sandholtz et al., 1997). Research suggests that when technology is integrated into the larger instructional framework, students will not only learn how to use the equipment and software but will also gain content knowledge (Silverstein et al., 2000). Moreover, using technology within the curriculum framework can enhance important skills that will be valued in the workplace, such as locating and accessing information, organizing and displaying, data, and creating persuasive arguments (Sandoholtz et al.,1997; "Critical Issue," 1999).

Consistent with this research, technology will not be taught in isolation. To this end the District is developing a Technology Scope and Sequence that lists skills by grade level and specifies who is responsible for teaching the skills. By creating benchmark lessons that address content standards and incorporate technology, teachers are given tools that integrate technology into the curricular and instructional framework. Additionally, West Contra Costa Unified School District will carefully analyze learning resources and lessons both for alignment with California content standards and for the ability to measure growth/achievement on those standards in a variety of ways.
The Learning Return On Our Educational Technology Investment: A Review of Findings from Research, WestED (Ringstaff & Kelley, June 2002) is an extensive report that examines many studies and reports related to educational technology and school reform. It looks at the kinds of impact technology has on education. Several key factors are identified as crucial elements for successfully using technology. They include:

- Technology is best used as one component in a broad-based reform effort
- Teachers must be adequately trained to use technology
- Teachers may need to change their beliefs about teaching and learning
- Technological resources must be sufficient and accessible
- Effective technology use requires long-term planning and support
- Technology should be integrated into the curricular and instructional framework

These key elements are addressed in several places in the WCCUD's Educational Technology Plan. Specifically, they can be found in goals 3 and 4 goals which address the creation of technology-enhanced, standards-based curricular lessons and units, building ongoing professional development.

The installation of equipment and the development of the technology skills does not insure that technology will be integrated into instruction. Another requirement for successful technology integration is professional development. The greatest gains in student achievement occurred when teachers were trained in the use of technology (Schacter, 1999). Intensive and ongoing staff development that provides opportunities for modeling, practice, and reinforcement of technology use with curricula should be

linked to curriculum goals and objectives from the onset of technology implementation efforts (Roschelle et al.,2000). Being mentored by an experienced teacher who is proficient with technology is a strategy which builds teacher confidence and interest in technology (Zhao, Pugh, Sheldon, & Byers, 2002). Extensive research conducted by the Office of Technology Assessment reports that "Districts may be well advised to use multiple training and support strategies tailored to the educational goals of the local site" (OTA, 1995). Information such as that above has prompted West Contra Costa USD to provide on-going professional development, to provide more than one time workshops, to build capacity by establishing a Technology Integration Leaders cadre, to include technology in curricular cadre meetings, and to identify technology mentor teachers to provide "just-in-time" training.

Through ongoing data collection and analysis, both District-wide and individually at the site, WCCUSD will continuously monitor its attainment of the goals and objectives of the Educational Technology Plan, and will report results annually to the superintendent, the school board, and the public.

Robert Marzano identified nine essential strategies that are most likely to improve student achievement across all content areas and across all grade levels. Using educational technology applications and resources, we can build on these recommendations and advance student learning through inquiry, collaborative projects, games, and other activities that will capture student interest and make school exciting and meaningful. We can help students take notes, summarize content and make comparisons and we can use technology to engage them in cooperative learning. We can also reinforce their efforts through formative assessment, feedback and recognition. Using Technology with Classroom Instruction that Works, Howard Pitler, Elizabeth R. Hubbell, Matt Kuhn, Kim Malenoski, Published by ASCD, 2007.

21st Century Skills

Technology can foster an increase in the quantity and quality of students' thinking and writing. Productivity tools such as databases, spreadsheets, computer-assisted design, graphics programs and multimedia authoring programs (programs for creating computer-based presentations or lessons) allow students to independently organize, analyze, interpret, develop, and evaluate their own work. Several features of word processors seem to reduce the phobia often associated with writing and enable high school graduates to be proficient at accessing, evaluating, and communicating information. Educational technologies can, by design, provoke students to raise searching questions, enter debates, formulate opinions, engage in problem solving and critical thinking, and test their views of reality. EnGauge 21st Century Skills: Literacy in the Digital Age, Lemke, Cheryl, et al. (2003), Available from http://www.metiri.com/21/21%20Century%20Skills%20Final.doc.

Mobile Learning

"...a wide range of learning activities that could be supported through mobile digital tools and environments include: exploring, investigating, discussing, recording/capturing data, building/making/modeling, sharing, testing, adapting, [and] reflecting (Laurillard, 2007). The following articles, research, and kits offer thoughtful discussion regarding mobile learning--definitions, pedagogy, uses, implementation, challenges, and more.

- Attwell, G (November 18, 2010). Research on Mobile Learning. Retrieved from Pontydysgu-Bridge to Learning, http://www.pontydysgu.org/2010/11/research-on-mobile-learning/JISC InfoNet (2011).

- Mobile Learning infoKit. Retrieved from https://mobilelearninginfokit.pbworks.com/w/page/41122430/HomeLaurillard, D. (2007). Pedagogical forms for mobile learning: framing research questions. Retrieved from http://eprints.ioe.ac.uk/627/1/Mobile_C6_Laurillard.pdf

- Parsons, D. and Ryu H. (2006). A Framework for assessing the quality of mobile learning. Retrieved from http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.108.2612&rep=rep1&type=pdf

- Sharples, M. et al. (2007). Mobile learning as a catalyst for change (Open Learning, Vol. 25, No. 3, November 2010, 181-185) Retrieved from http://www.telearn.org/warehouse/KAL_Legacy_Mobile_Learning_(001143v1).pdf

National Educational Technology Plan

Learning Powered by Technology (2010) is the current National Educational Technology Plan. The District technology plan addresses the five goals and key components identified in the National Educational Technology Plan:

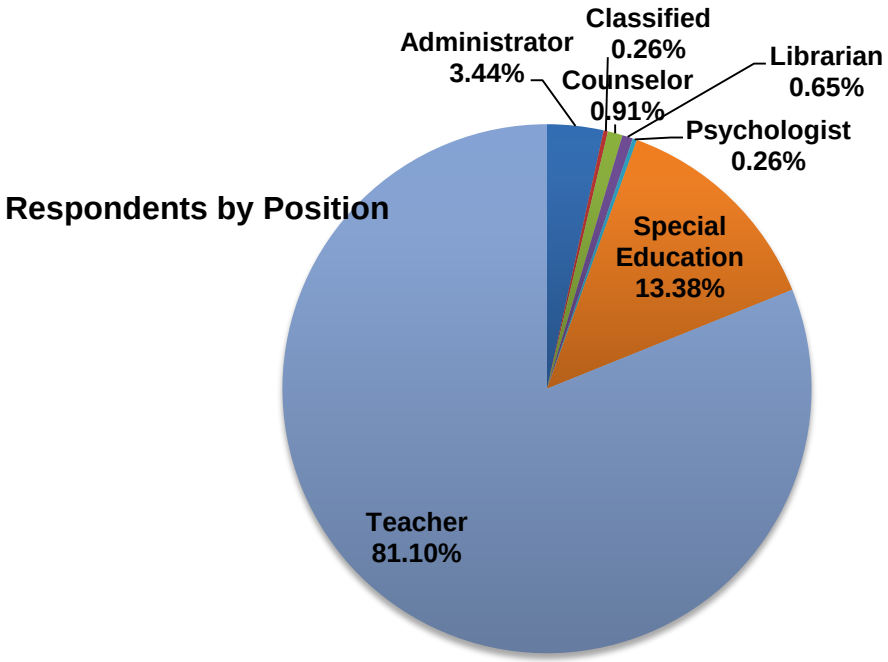
- Teaching: Preparing and connecting professional educators
- Learning: Engaging and empowering students
- Assessment: Measuring what matters
- Infrastructure: Providing students and educators access to a comprehensive infrastructure
- Productivity: Redesigning and transforming processes to take advantage of technology to make more efficient use of time, money, and staff Retrieved January 27, 2012 from http://www.ed.gov/technology/netp-2010

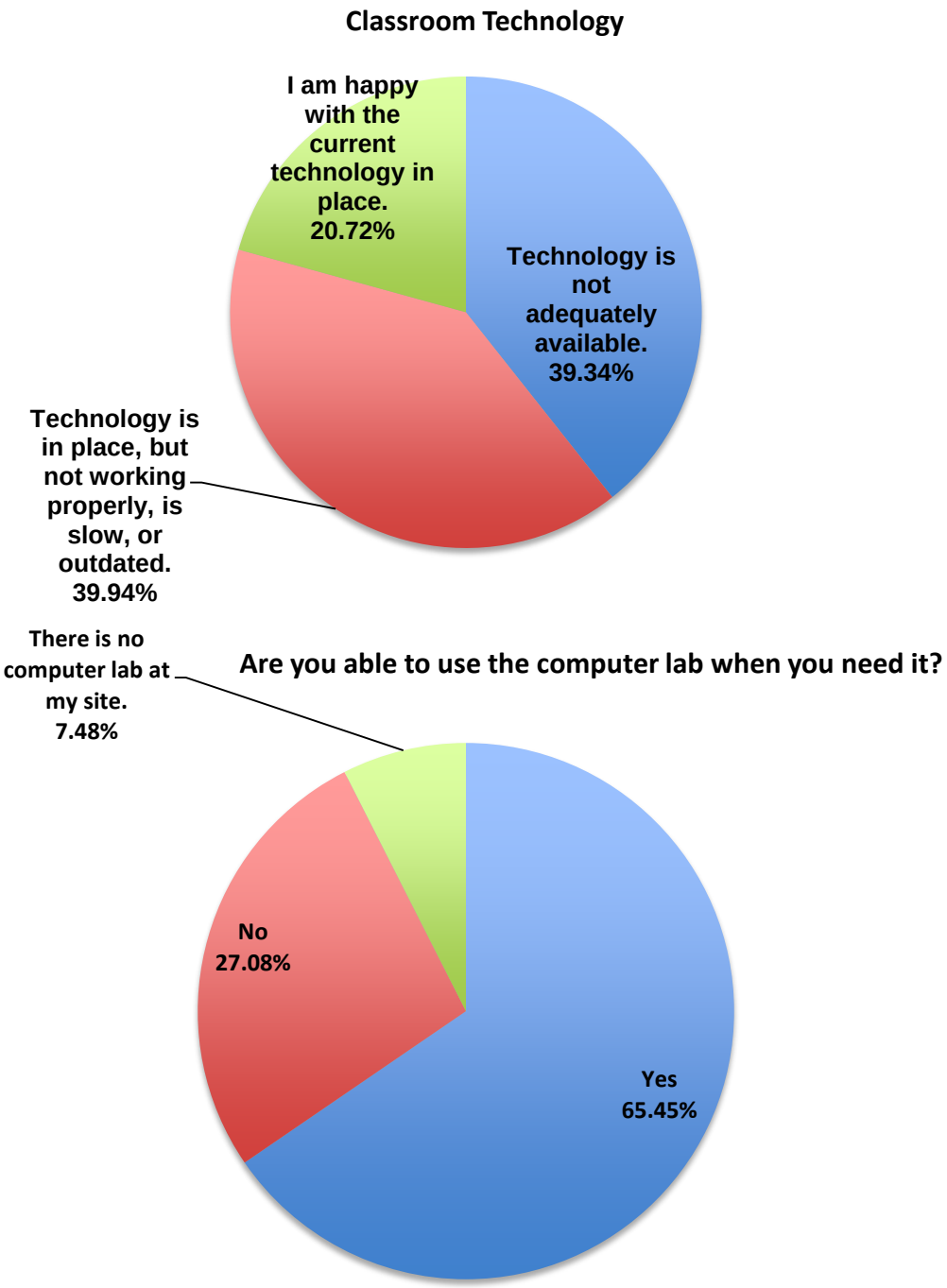
9b. Describe the District's plans to use technology to extend or supplement the District's curriculum with rigorous academic courses and curricula, including distance learning technologies.

This is described throughout the Curriculum Section (Section 3). The West Contra Costa USD is always interested in examining ways to deliver curriculum and professional development using new innovative, technology-based tools. The District is committed to increasing course offerings through the use of technology. Currently, the District offers a limited number of online AP courses for high school students. Streamed video aligned with California academic content standards is available through a licensing agreement with the Contra Costa County Office of Education. The District is also investigating video conferencing capabilities for all school sites in order to enhance instruction through collaborative learning projects, to deliver courses from different sites, to allow for students and teachers to collaborate with peers and experts. Additional video conferencing may be installed at the District's professional development center to provide in-service opportunities from multiple sites.

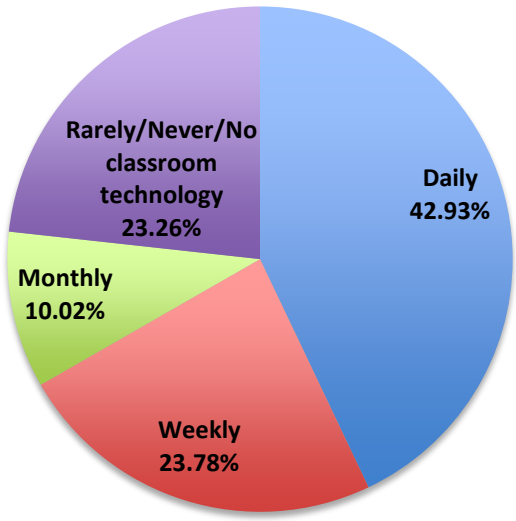
Appendix A

Which of the following best describes your current professional role?
Total number of respondents: 1,540

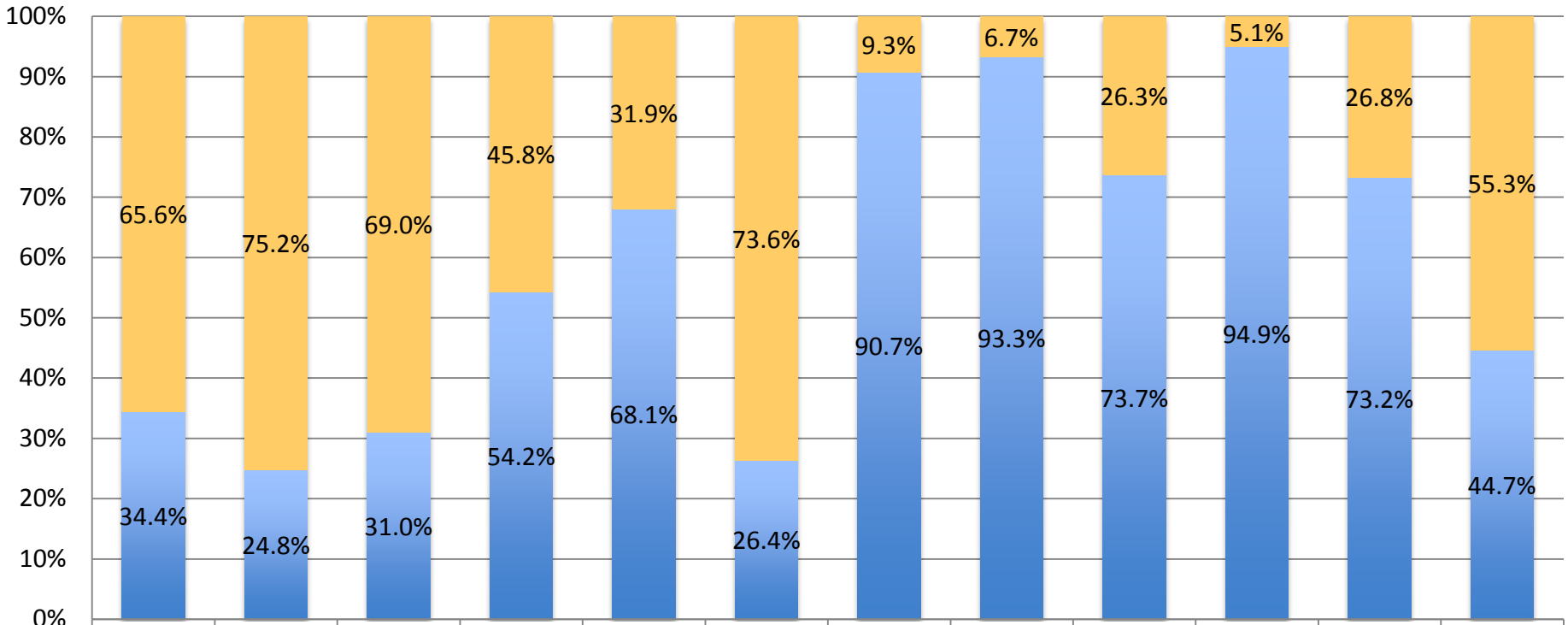



Classroom Technology
I am happy with the current technology in place. 20.72%
Technology is not adequately available. 39.34%
Technology is in place, but not working properly, is slow, or outdated. 39.94%
Are you able to use the computer lab when you need it?
There is no computer lab at my site. 7.48%
No 27.08%
Yes 65.45%

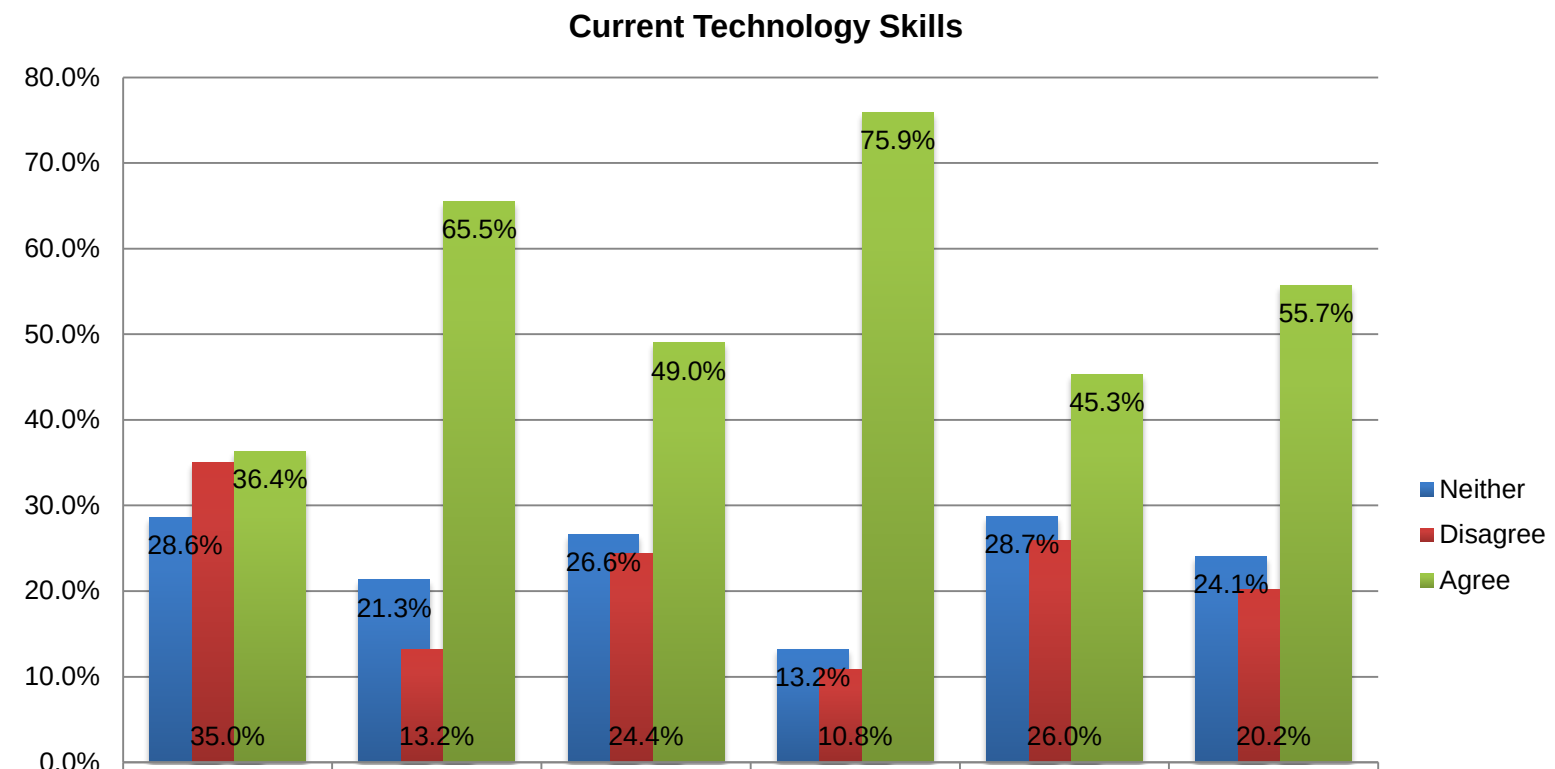
Frequency of Technology Integration into Classroom Instruction



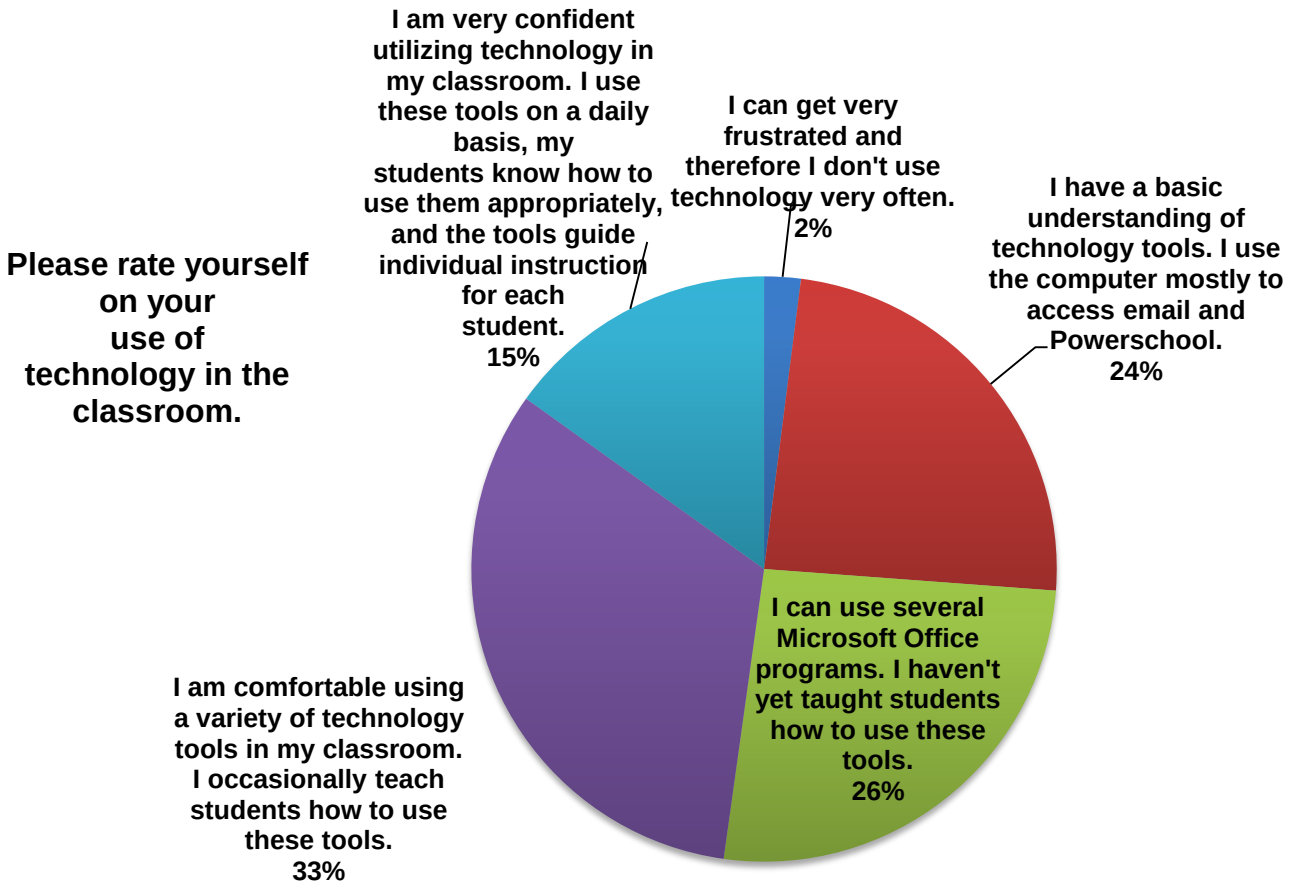
Availability of Technology



	Laptop	Projector	Document Camera	Digital Camera	Scanner	DVD/VCR	Interactive White Board	Student Response System	tablet	netbook	Google Drive/Apps for Education	ed1stop
Available	65.6%	75.2%	69.0%	45.8%	31.9%	73.6%	9.3%	6.7%	26.3%	5.1%	26.8%	55.3%
Unavailable	34.4%	24.8%	31.0%	54.2%	68.1%	26.4%	90.7%	93.3%	73.7%	94.9%	73.2%	44.7%



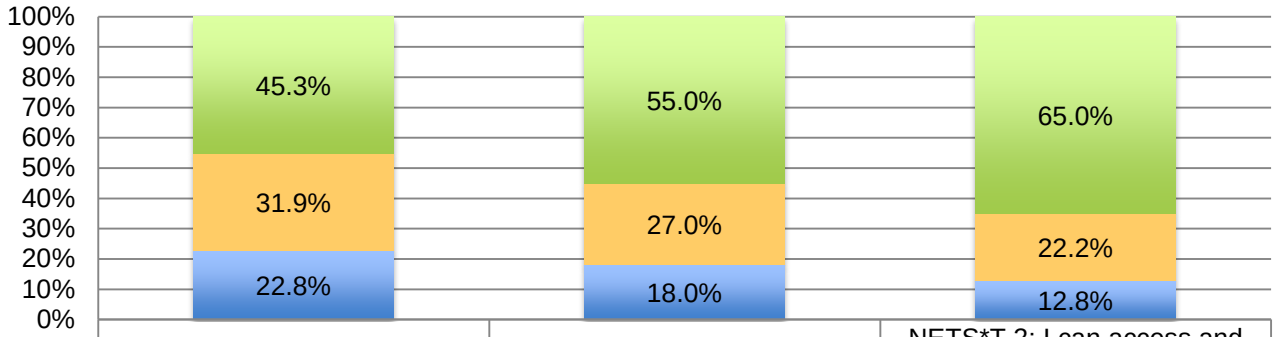
	I know how to solve my own technical problems.	I can learn technology easily.	I keep up with important new technologies.	I frequently use technology in my personal time.	I know about a lot of different technologies.	I have the technical skills I need to use technology.
Neither	28.6%	21.3%	26.6%	13.2%	28.7%	24.1%
Disagree	35.0%	13.2%	24.4%	10.8%	26.0%	20.2%
Agree	36.4%	65.5%	49.0%	75.9%	45.3%	55.7%


Please rate yourself on your use of technology in the classroom.
I am very confident utilizing technology in my classroom. I use these tools on a daily basis, my students know how to use them appropriately, and the tools guide individual instruction for each student. 15%
I can get very frustrated and therefore I don't use technology very often. 2%
I have a basic understanding of technology tools. I use the computer mostly to access email and Powerschool. 24%
I can use several Microsoft Office programs. I haven't yet taught students how to use these tools. 26%
I am comfortable using a variety of technology tools in my classroom. I occasionally teach students how to use these tools. 33%

Based on respondents' self-rating, they were asked more specific questions about their educational technology skills. Those with the following responses were directed to items based on the National Educational Technology Standards for Teachers:

- I can use several Microsoft Office programs. I haven't yet taught students how to use these tools.
- I am comfortable using a variety of technology tools in my classroom. I occasionally teach students how to use these tools.
- I am very confident utilizing technology in my classroom. I use these tools on a daily basis, my students know how to use them appropriately, and the tools guide individual instruction for each student.

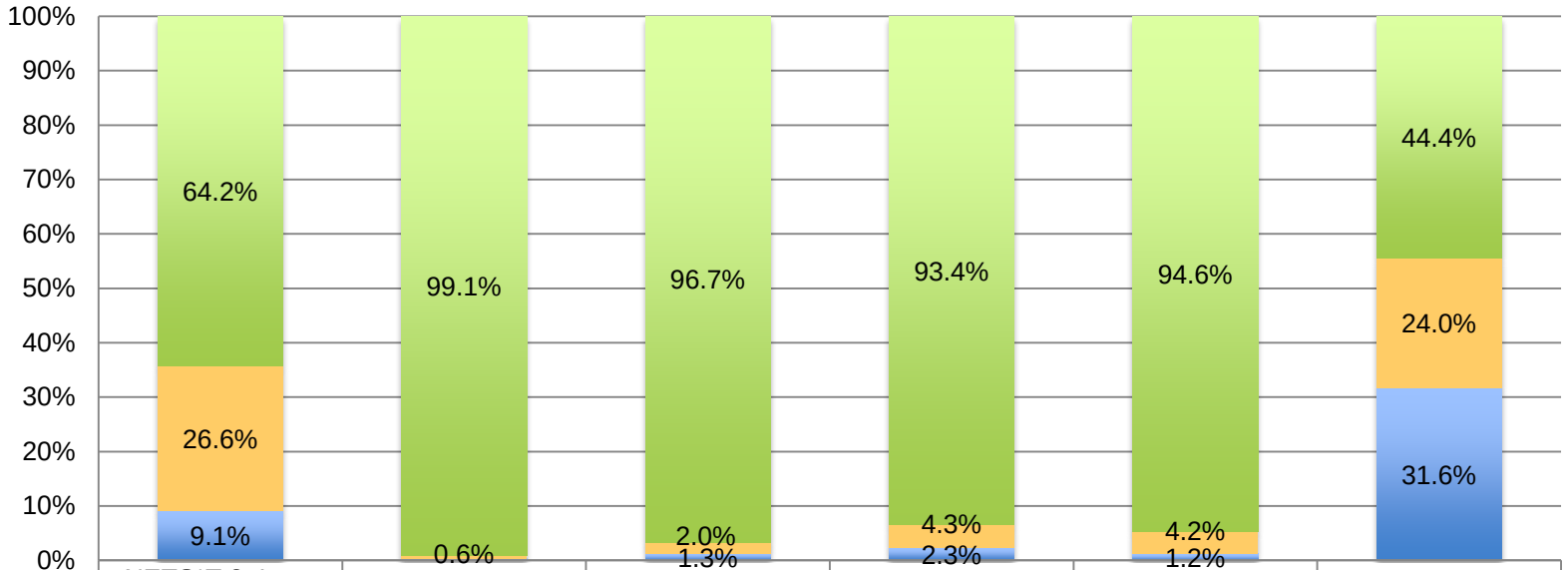
National Educational Technology Standards for Teachers (NETS*T) 2: Design and Develop Digital Age Learning Experiences and Assessments
Teachers design, develop, and evaluate authentic learning experiences and assessment incorporating contemporary tools and



	NETS*T 2: I can design and implement technology-infused lessons.	NETS*T 2: I can develop and utilize rubrics to evaluate student's projects	NETS*T 2: I can access and utilize Edusoft and Powerschool to obtain necessary information (student information, parent information, grade book tools, CST and benchmark scores)
Capable/could teach others	45.3%	55.0%	65.0%
Learning	31.9%	27.0%	22.2%
Aware of	22.8%	18.0%	12.8%

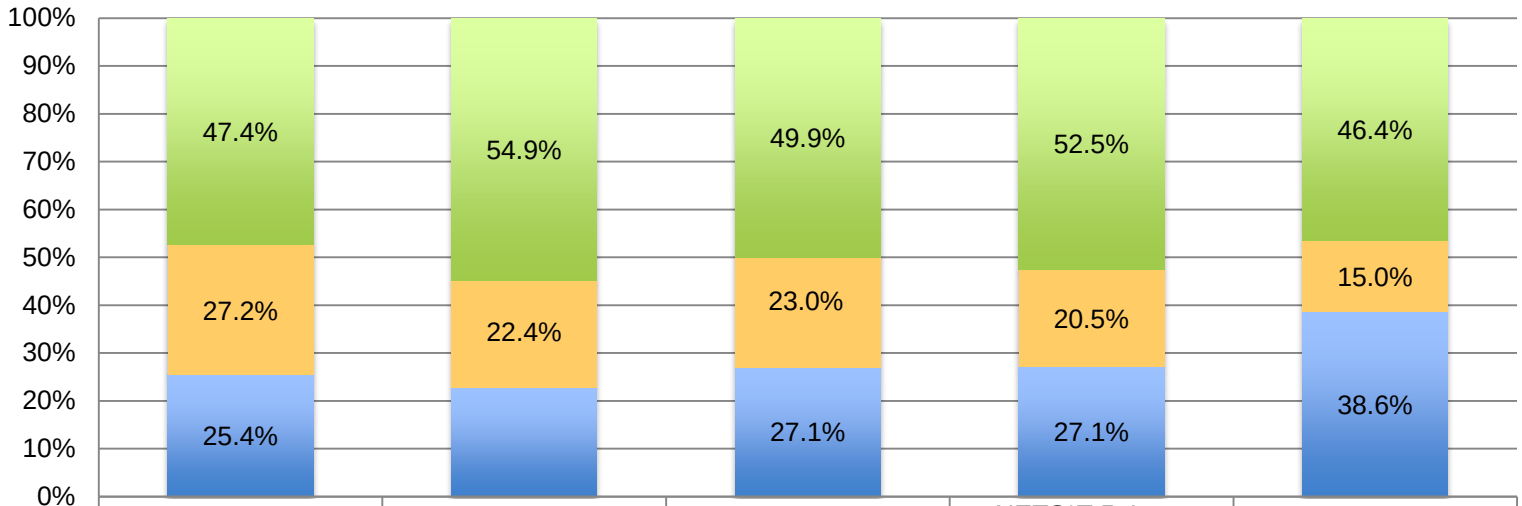
National Educational Technology Standards for Teachers (NETS*T) 3: Model Digital Age Work and Learning

Teachers exhibit knowledge, skills, and work processes representative of an innovative professional in a global and digital society.



	NETS*T 3: I can identify computer and technology related resources appropriate for classroom use.	NETS*T 3: I can use email.	NETS*T 3: I can attach files to email.	NETS*T 3: I can use technology to communicate with parents.	NETS*T 3: I can use the web to locate resources for the classroom.	NETS*T 3: I can develop and update a web page or blog.
Capable/could teach others	64.2%	99.1%	96.7%	93.4%	94.6%	44.4%
Learning	26.6%	0.6%	2.0%	4.3%	4.2%	24.0%
Aware of	9.1%	0.3%	1.3%	2.3%	1.2%	31.6%

National Educational Technology Standards for Teachers (NETS*T) 4: Promote and Model Digital Citizenship and Responsibility and National Educational Technology Standards for Teachers (NETS*T) 5: Engage in Professional Growth and Leadership



	NETS*T 4: I know and understand current copyright laws around the use of digital resources.	NETS*T 4: I understand and teach my students ethical use of technology.	NETS*T 5: I can utilize distance education tools for online learning.	NETS*T 5: I can utilize social media tools (Twitter, Pinterest, Facebook, etc.) to create and engage in learning communities.	NETS*T 5: I have participated in online conferences.
Capable/could teach others	47.4%	54.9%	49.9%	52.5%	46.4%
Learning	27.2%	22.4%	23.0%	20.5%	15.0%
Aware of	25.4%	22.7%	27.1%	27.1%	38.6%

Appendix B

Site Computer Inventory 2013-2014

Computer Age by School Site

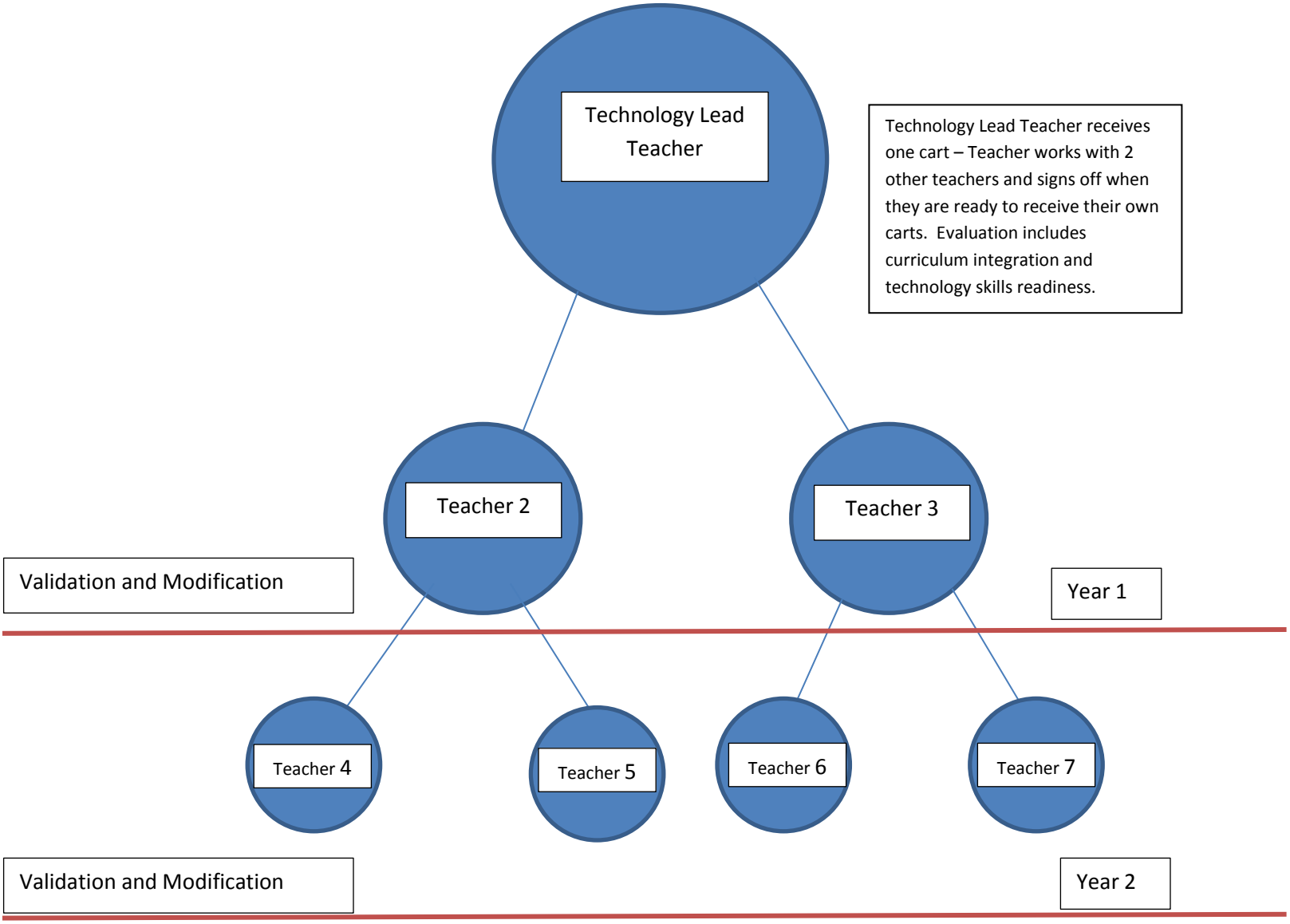
Site	Total Computers	Computers 0-3 Years Old	Computers 4-5 Years Old	Computers > 5 Years Old
Alvarado	40	18%	73%	10%
Bayview	114	82%	10%	9%
Cameron	33	6%	61%	33%
Chavez	110	15%	45%	39%
Collins	103	55%	26%	18%
Coronado	96	57%	31%	11%
Crespi	146	35%	58%	8%
De Anza	525	96%	3%	1%
Dover	255	23%	76%	0%
Downer	231	8%	92%	0%
El Cerrito	433	21%	77%	2%
Ellerhorst	99	61%	24%	15%
Fairmont	106	82%	5%	13%
Ford	190	100%	0%	0%
Gompers	52	23%	58%	19%
Grant	109	35%	49%	17%
Hanna Ranch	111	63%	23%	14%
Harding	107	57%	14%	29%
Helms	444	40%	60%	0%
Hercules High	307	70%	14%	16%
Highland	131	77%	6%	17%
Kennedy	274	58%	27%	14%
Kensington	125	60%	26%	14%
King	184	15%	84%	1%
Lake	68	69%	4%	26%
Lincoln	200	95%	4%	2%
Lovonya DeJean	130	49%	38%	13%
Lupine Hills	93	55%	35%	10%
Madera	105	60%	24%	16%
Middle College	19	53%	47%	0%

Site	Total Computers	Computers 0-3 Years Old	Computers 4-5 Years Old	Computers > 5 Years Old
Mira Vista	148	57%	32%	11%
Montalvin	109	45%	22%	33%
Murphy	94	33%	60%	7%
North Campus	78	68%	28%	4%
Nystrom	148	76%	1%	22%
Ohlone	89	80%	4%	16%
Olinda	66	62%	24%	14%
Peres	144	19%	60%	21%
Pinole Middle	295	21%	76%	3%
Pinole Valley	305	52%	34%	14%
Portola	168	68%	7%	25%
Richmond	534	43%	40%	18%
Riverside	84	82%	4%	14%
Serra	97	3%	30%	67%
Shannon	85	71%	11%	19%
Sheldon	93	82%	9%	10%
Stege	95	34%	28%	38%
Stewart	111	75%	6%	19%
Tara Hills	101	69%	22%	9%
Valley View	75	47%	43%	11%
Verde	70	80%	3%	17%
Vista High	107	53%	7%	40%
Washington	94	68%	23%	9%
Wilson	108	52%	24%	24%

Technology Services Division
Technology Projects 2014-2015

	Project/Initiative	Timeframe	Dept.	Actual Cost	Comments	Total Cost
	Description					
1	**Firewall** [1]	**August, 2014**	**District wide**	**$350,000**	Firewall – Purchase a larger box with more capacity, flexibility and capabilities. Our current appliance will not keep up with the demand.	**$350,000**
2	**Content Filter** [1]	**August, 2014**	**District wide**	**$210,000** (5 year maintenance and 10,000 user licensing)	Purchase larger box (more sophisticated) to accommodate more devices. This is necessary for ERATE compliance.	**$210,000**
3	**SPAM Filter** [1]	**August, 2014**	**District wide**	**$125,000**	Purchase larger box (more sophisticated) to accommodate more devices. This is necessary for ERATE compliance.	**$125,000**
	Core Switches[1]	**August, 2014**	**26 Sites**	**$650,000**	Purchase core switches for 26 sites that do not have adequate infrastructure to upgrade to 10 Gbps fiber.	**$650,000**
	Fiber Interconnects[1]	**August, 2014**	**ITC MDF**	**$200,000**	Fiber interconnects for the Nexus 7 switches to take in site fiber connections.	**$200,000**
4	**Voice over IP** [2]	**July, 2014**	**District wide**	**W/ERATE & CTF $75,240 per year + $15,750**	w/out ERATE $716,577* per year + $75,000 one time installation fees.	**$90,990**
5	**10 Gbps WAN Network** [2]	**July, 2014**	**District wide**	**W/ERATE & CTF $183,700**	w/out ERATE $1,749,523* per year	**$183,700**
6	**Assessment System** [3]	**April, 2014**	**District wide**	**$169,500**	IlluminateED	**$169,500**
	BrightBytes Assessment System[3]	**April, 2014**	**District wide**	**$70,349**	3 year on-going assessments of program effectiveness	**$70,349**
7	**Teaching Carts for Classrooms** [2]	**July, 2014**	**New classrooms**	**$2500 per classroom**	30 new classrooms	**$75,000**
8	**Carts for SBAC Testing** [1]	**April, 2014**	**Select schools**	**$340,000 for tablets and $34,000 for carts**	17 carts of 40 tablets each (680 tablets)	**$374,000**
9	**Carts for Summer School** [1]	**May, 2014**	**Summer school sites**	**$360,000 for tablets and $36,000 for carts**	18 carts to be combined with SBAC carts for a total of 35 (720 tablets)	**$396,000**
10	**Carts to Complete "One Cart per School"** [1]	**September, 2014**	**Remaining sites**	**$500,000 and $50,000 for carts**	25 carts – Begin the plan of train the trainer model, leading to one-to-one (1000 tablets)	**$550,000**
11	**Two Additional Carts per Site** [1]	**December, 2014**	**All schools**	**$2,800,000**	4800 tablets – 2 teachers per site chosen by readiness evaluation	**$2,800,000**
12	**Websites for Teachers and Sites** [2]	**September, 2014**	**All schools and teachers**	**W/ERATE Erate Portion: $7,934 District Portion: $11,671**	W/Out ERATE $41,520* Update and maintain for parent and community communication	**$19,605**
13	**Data Center Power and Generator** [2]	**September, 2014**	**All schools**	**$1,000,000 (Estimate – Real numbers are not available until plans are complete)**	Data Center at ITC needs more power and larger generator in order to support the equipment and WAN feeds to all sites. We will be upgrading to 800 AMPs. At the present time, we do not have enough power to support our systems.	**$1,000,000**
	Total Cost					**$7,264,144**
	[1]Bond					**$5,655,000**
	[2]General Funds					**$1,369,295**
	[3]CCSS					**$239,849**
	***ERATE Projects total $2,582,620. Of this amount, the Federal Government pays $2,029,384 and CTF pays $258,941**					**$2,288,325**

THE ROLL OUT



In this model, teachers are not only learners of the technology, but are also trainers/mentors. This solidifies knowledge and encourages collaboration.

This model would continue until all teachers were trained. At this point, the carts would be dismantled and each student would have a device.

INFRASTRUCTURE STANDARDS

Switches – Cisco 4500X as the core switch at each site's MDF

Switches – Cisco 3850 as IDF switches for each site – POE+

Cabling:

- All copper network cable must be Category 6A or better and support 10Gbps.
- Fiber single-mode from all IDF's to MDF's – Capable of 100 Gbps (certified)
- All fiber network cable must be single mode 50/125 or better and support 100Gbps.
- 30% free space in all conduits at all times.
- Bend radius not to exceed 3 times the diameter of the cable
- Cable and installation warranty with signed certificate of no less than 20 years. All cable installations must be accompanied by certification reports
- Service loops at MDF / IDF locations 3 meters
- Service loops at end points 1 meter (exceptions will be authorized in writing)
- Cat6a plenum patch cables which fit into cable management system
- Appropriately sized cable management system if not already installed
- Cables tied with Velcro or cable management manufacturer recommended solution

UPS – Minimum running-time of ½ hour at the sites, but preference would be at least 2 hours

HVAC – All IDF's and MDF's should have adequate air-flow/conditioning to keep the temperature at a constant 70 degrees

Fire Suppression – All MDF's and IDF's should have adequate protection

Servers – Cisco UCS

Storage – NetAPP

Wireless Controllers – Cisco 8500

Wireless Access Points – Cisco 3702i

Network Management – Cisco Prime, Cisco ISE and IPSwitch What's up Gold

Firewall – Palo Alto Networks HA (PAN)

All deployments are based upon 10 Gbps backbones. These standards are updated every six months or as necessary.

Implementation Worksheets

Implementation Plan Goal 3d Page 11					
Activities	**Timeline**	**Department(s) Responsible**	**Monitoring & Evaluation**	**Status**	**Notes**
Conduct a survey of faculty and staff to determine degree of computer use and knowledge	November 2013 Baseline, Repeat Yearly in the fall	ITS and Educational Services Departments	Survey results		
Establish the Technology and Curriculum Committee (TACC) formed of Technology Teacher Leaders, representatives of Educational Services, CTO, and District Educational Technologist	January 2014	ITS and Educational Services Departments	Meetings agendas, sign-in sheets, meeting notes		
Observe teacher lessons to ensure technology integration	Quarterly	ITS and Educational Services Departments	Based on observation data		
Establish an educational technology homepage where best practices can be shared.	June 2014	ITS and Educational Services Departments	Homepage established		
Create a comprehensive professional development plan	March 2014 and updated yearly	TACC	Approved plan		
Provide on-going training and support to all teachers in the use of district assessment system	Ongoing	ITS	# of teachers trained and training feedback		
Provide on-going training and support to all teachers in the use of cloud-based applications such as Google Apps for Education, ed1stop, and Edmodo	Ongoing	ITS	# of teachers trained and training feedback		

Teachers and administrators will use technology resources to obtain, analyze, and present assessment data (state and local) in order to inform instruction.	Ongoing	ITS, Educational Services, and K-Adult Operations	Survey of focus group		
Teachers will create classroom web pages as a means of communication for assignments, showcasing student work, and for class-wide announcements.	Begin August 2015	ITS Department, K-Adult Operations, Site Administrators	Webpages		
Include technology as a standing agenda item for all elementary and secondary curriculum meetings.	Begin August 2014	Educational Services Department and K-Adult Operations	Meeting agendas		
Include technology as a standing agenda item for Cabinet meetings.	Begin January 2014	Chief Technology Officer	Meeting agendas		
Establish electronic communication protocol between technology and curriculum instruction.	August 2014	ITS	Documentation of protocol and samples of communications		
Ensure all schools have access to Media Master and have received the professional development necessary to integrate this technology into the curriculum.	September 2014	ITS Department and K-Adult Operations	Web sites		

Implementation Plan Goal 3e Page 15					
Create and implement an online student technology use/knowledge survey	May 2014	ITS and Educational Services	Online survey		

Teachers will be trained to guide student's use of the Internet by creating and using curriculum-based homework pages on Edmodo	Begin August 2014	ITS and Educational Services	Homework access online (*Edmodo or other appropriate web application*)		
Curriculum will be developed targeting student technology literacy skills needed for the 21st Century	Begin August 2014	ITS and Educational Services	Measured by percentage of teachers using Edmodo or similar program		
Create integrated curriculum which fosters a successful one-to-one implementation.	Yearly	ITS and Educational Services	Curriculum Guides		
Pilot studies will take place to ensure the correct devices are chosen for the one-to-one initiative	June 2014	ITS and Educational Services	Project Schedule, timeline and findings		
Encourage students to write daily and electronically communicate effectively for various purposes/audiences as defined by the Common Core State Standards.	Yearly	ITS and Educational Services	Completed student writing across the curriculum		

Implementation Plan Goal 3f Page 16					
Activities	**Timeline**	**Department(s) Responsible**	**Monitoring & Evaluation**	**Status**	**Notes**
Update the District's Acceptable Use Policy for Students and create an Acceptable Use Policy for Staff	August 2014	ITS and Academic Services Departments	Acceptable Use Policies		
Post, distribute and enforce the District's Acceptable Use Policy for Students and Staff as well as the District's network policy.	September 2014	K-Adult Operations	Policy available in physical locations and online		

Ensure teachers and students receive proper training in the use of technology and digital citizenship. (www.commonsense media.org)	October 2014 and yearly	K-Adult Operations and Academic Services	# of current teachers trained; training agenda and professional development calendar		
Monitor students' use of the internet	Ongoing	Associate Sup. Operations	Random checks		

Implementation Plan Goal 3g Page 17					
Activities	**Timeline**	**Department(s) Responsible**	**Monitoring & Evaluation**	**Status**	**Notes**
Establish access to web sites with prescreened, appropriate, educationally relevant material that is relevant to the students' assignment or work.	Ongoing	ITS and Academic Services	Random checks and lists of web sites accessed as well as filtering software logs		
Provide training about cyber-bullying and protecting online privacy (incorporated into the Implementation Plan for Goal 3f) (www.commonsense media.org)	Ongoing	ITS and Academic Services	Training agendas for students and # of students trained *(can also be digital signatures by students upon completion)*		
Continue to implement the use of a technology protection measure (filtering software), which is a specific technology that protects against access to visual depictions that are obscene, child pornography, and materials that are harmful to minors.	Ongoing	ITS	# of blocked sites and e-mails		

Implementation Plan Goal 3h Page 18					
Activities	**Timeline**	**Department(s) Responsible**	**Monitoring & Evaluation**	**Status**	**Notes**
Appoint representatives from special education, low income, foster youth and English Language Learners to serve on the Technology Subcommittee to ensure the needs of their students are met.	Ongoing	K-Adult Operations, ITS, and Educational Services	Dept. staff on TACC		
Provide a list of locations for after-school access to technology in school community centers, libraries, or extended lab or media center hours to ensure wider access for students and parents.	Ongoing	ITS	Survey sites		
Identify and post on the District website technology resources appropriate for special education, GATE, and English Language Learners.	Ongoing	ITS and Educational Services	List of available resources for special populations		
Encourage all schools to provide students access to technology before and after school and in extended learning programs.	Ongoing	ITS and Educational Services	After-school program reports and evaluation		
Partner with community based programs to establish after-school access to technology for parents and students.	Ongoing	K-Adult Operations, ITS, and Educational Services	After-school reports and evaluation, parents and students surveys		

Partner with community based programs to establish a program to recycle computers into the homes to increase family access.	Ongoing	ITS and Community Outreach	Reports from community involvement programs		
Develop and implement a one-to-one program to provide computing devices for all students	Ongoing	ITS and Bond Program	Percentage of students with devices		
Form partnerships with businesses to help subsidize internet access for those students who do not have internet access at home	Ongoing	Chief Technology Officer	Board Minutes		
Write grants to acquire computer equipment and adaptive software to accommodate specific needs for ELA and Special Education students	Ongoing	K-Adult Operations, ITS, and Educational Services	Spreadsheet of grants written and target population of those grants		

Implementation Plan Goal 3i Page 20					
Activities	**Timeline**	**Department(s) Responsible**	**Monitoring & Evaluation**	**Status**	**Notes**
Collect data on PowerTeacher, PowerGrade and district assessment system.	Biannually in June and December	ITS and Academic Services	Access rates		

Ensure all teachers and administrators have access to PowerSchool (SIS), and district assessment system to improve school management, including pupil record keeping and tracking related to pupil instruction and data driven decisions concerning student and school needs.	Annually by September	ITS and Academic Services	Access rates		
Training is provided to all teachers and administrators in the use of PowerSchool (SIS), and district assessment system.	Given several times annually on an as-needed basis	ITS and Academic Services	# of current teachers trained; training agenda and professional development calendar		

Implementation Plan Goal 3j Page 22					
Activities	**Timeline**	**Department(s) Responsible**	**Monitoring & Evaluation**	**Status**	**Notes**
Provide training to all school administrators as well as one to two staff members per site (as designated by the school principal) on creating effective school websites using Schoolwires.	By June 2015	ITS and Educational Services	Training agendas, sign-in sheets, evaluations		
Ensure all schools have web sites that provide for two-way communication, interactive activities and school information (list of teachers, phone numbers, e-mail addresses, homework information, etc.)	By December 2015	ITS	Observation		

Provide training to school personnel in the effective use of district auto-dialer system	By August 2014	ITS and Community Engagement Office	Training agendas, sign-in sheets, evaluations		
Continue using district auto-dialer system to record, schedule, send, and track personalized voice messages to students, parents, and staff.	Ongoing	ITS and K-Adult Operations	Frequency of and reason for using auto-dialer, by site		
Provide online reporting of student grades and attendance in real time.	Starting in August 2014	ITS	Online reports		
Provide community access to athletic events and other school event calendars.	Starting in January 2014	ITS	Online calendars		
Provide online access to food service menus, student account balances and history of purchased meals.	Starting in August 2014	ITS, Food Services	Online access to nutrition and food information		
Provide access to up-to-date information on bus schedules and routes.	Ongoing	ITS, Community Engagement Office, K-Adult Operations	Online access to transportation information		
Encourage District and schools to strengthen partnerships with parents, community organizations, educational institutions, the business community, and city/county agencies, with the goal of expanding opportunities in technology for our students.	Ongoing	ITS, K-Adult Operations, and Community Engagement Office	Survey		

Implementation Plan Goal 4b Page 30					
Activities	**Timeline**	**Department (s) Responsible**	**Monitoring & Evaluation**	**Status**	**Notes**
Conduct a survey (EdTech Profile) of faculty and staff to determine degree of computer use and knowledge	November 2013 Baseline, Repeat Yearly in March	ITS and Educational Services	Survey results		
Ensure that 14% of Common Core funds are used for professional development in technology	Ongoing	ITS and Educational Services	Use of Common Core funds, fiscal reports		
Train administrators and support staff to understand how technology can be used in the Common Core classroom	Starting in January 2014	ITS, Educational Services	Survey staff to determine knowledge level		
Provide basic, intermediate and advanced training in Microsoft Office including Word, Excel, PowerPoint and Outlook Express.	Starting in January 2014	ITS, Educational Services	Survey site administrators		
Use EdTechProfile survey to inform professional development needs.	Starting in November 2013	ITS, Educational Services	EdTechProfile results, training agendas, and online professional development calendar		
Identify in-school experts or “lead learners” who become mentor teachers and assist colleagues with new programs or ongoing learning	Starting January 2014	ITS, Educational Services, Principals	Survey sites for information		

Technology teacher leaders are provided additional training to present to their colleagues at the sites	Starting March 2014	ITS, Educational Services	Training agendas, sign-in sheets, evaluations		
Technology teacher leaders act as front runners in designing in-classroom learning activities and then share their learning with their colleagues in school and across the District via wiki/blog sites set up by the District	Starting March 2014	ITS, Educational Services	Wiki/blogs		
Provide opportunities for professional development online or via distance learning	Starting January 2014	ITS, Educational Services	access to online courses through district website		
Encourage teacher access to electronic resources via the EdTech Resource Website/Wiki.	Ongoing starting January 2014	Educational Services	usage statistics		
Tech mentors trained to serve as technology coordinators at each school	Starting January 2014	ITS, Educational Services	# of mentors, by site		
Schedule and offer District assessment system trainings several times throughout the school year as needed.	Ongoing	Educational Services	Training agendas, sign-in sheets, evaluations		

Implementation Plan Goal 5c 1.a Page 40					
Activities	**Timeline**	**Person(s) Responsible**	**Monitoring & Evaluation**	**Status**	**Notes**
Adopt a five year computer replacement plan and budget	April 2014	Chief Technology Officer	Board Policy, Administrative Regulation published		
Develop an annual deployment plan.	August 2014, annually	Chief Technology Officer	Plan submitted to Cabinet		

Replace/purchase computers for a student to computer ratio of 1:1 (Budget Permitting)	July 2014 2015 2016 2017	Chief Technology Officer	Student Information Management System and Monitoring Tools		

Implementation Plan Goal 5c 1.b Page 41					
Activities	**Timeline**	**Person(s) Responsible**	**Monitoring & Evaluation**	**Status**	**Notes**
Identify areas which need wireless connectivity	March yearly	Chief Technology Officer	List published		
Create RFP for cabling infrastructure and devices	September 2014 and yearly as classrooms increase	Chief Technology Officer	RFP published		
Develop and present to Board a funding plan to implement the wireless technology	November 2014	Chief Technology Officer and Cabinet	Board minutes		
Create RFP for 10 Gbps backbone	ERATE Year 2014-2015	Chief Technology Officer	RFP published		
Develop and present to Board a funding plan to implement the 10 Gbps backbone	March 2014	Chief Technology Officer	Board Minutes		