

# WEST CONTRA COSTA UNIFIED SCHOOL DISTRICT

## EDUCATION TECHNOLOGY PLAN

JULY 1, 2008 – JUNE 30, 2011



## WCCUSD Technology Plan Contact Information

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## **West Contra Costa Unified School District Technology Plan July 1, 2008 – June 30, 2011**

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 2008 -2011 to articulate a common vision for technology in West Contra Costa schools and identify the strategies that will help schools use technology to promote student achievement of rigorous curriculum standards and the development of critical thinking skills that are essential for academic and workplace success.

In alignment with the National Educational Technology goals, 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 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 oriented activities;
- Promoting learning communities via collaboration between 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 over 30,000 students in five cities and six unincorporated areas. WCCUSD is the 20th largest school district in California with 20 pre-schools, 41 elementary schools, 7 middle schools, 7 high schools, 6 alternative high schools, 1 independent study school, and 3 charter schools. Our diverse student population includes: 43% Latino, 24% African American, 11% Caucasian, 10% Asian, 5% Filipino, and 3% other ethnicities. More than 80 languages are spoken within our 110 square mile jurisdiction. There are close to 10,000 (about 30%) English Learners

(ELs) in our District, more than 75% of whom speak Spanish. Our 26 schools eligible for Title I funding in 2007-08 include 21 elementary schools, three middle schools, and two high schools.

Our mission is 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.

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

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, also approved by CDE. With the June 2008 expiration of the current plan and under the leadership of a new Superintendent and restructured Cabinet, the WCCUSD technology plan was recently 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.

In the process of developing the current revision of the technology plan, it became clear that there are a myriad of activities underway in our schools to help students learn about computers, technology tools, and the use of the Internet to access important information. It also became clear that, due to the size of WCCUSD (over 60 school sites), coordination of instructional technology presented more of a challenge than expected. Many in our communities fall victim to the digital divide and taking inventory of efforts underway to link technology to teaching and learning was an eye-opening experience. As a result, the current revision (2008-2011) 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.

## 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 July 1, 2008 to June 30, 2011. Many of the efforts described in this plan are already underway. The general consensus is that there is no need to write a new plan, but rather to describe how our efforts will be better coordinated to provide effective and efficient responses to student needs.

It is important to note that, due to funding issues, the WCCUSD Technology Plan is subject to annual budget revisions and available grants. 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

Under the leadership of the Technology Integration Coordinator in 2003 and the Senior Director, Accountability and Technology Services in 2005, the WCCUSD Educational Technology Integration Committee (TIC) developed, revised, and updated the District plan. The TIC, comprised of Superintendent Cabinet members, teachers, principals, representatives from Curriculum and Instruction, Special Education, Accountability and Technology Services, education and business partners, and CTAP specialists, wrote the original technology plan and provided comments and feedback. During the process, the team conducted research, analyzed the California School Technology Survey information, and prepared regular evaluation and updates. As the plan was revised, an utmost effort was made to include as many of the stakeholders as possible, or their designees and peers, in the ongoing review process. Their input, feedback and suggestions were incorporated into this 2008-2011 update.

During the planning period and over the course of the past 3 years, participants have:

1. Evaluated the status of the current technology plan;
2. Examined the status of current WCCUSD curricular and technology initiatives, including EETT formula and competitive programs;
3. Gathered input from groups they represent;
4. Reviewed national technology standards, performance indicators and rubrics;
5. Evaluated District technology data with regard to hardware, wiring, use of resources, professional development needs, proficiencies, and ongoing existing technology initiatives.

The 2008-2011 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*. The Guidance document identifies the essential components of technology plans and frames all the issues relevant to technology integration within a comprehensive school improvement plan.

The California Board of Education adopted Guidelines recommended by the Commission on Teacher Credentialing to ensure that teacher candidates:

*“... Become fluent, critical users of technology to provide a relevant education and to prepare students to be life-long learners in an information-based, interactive society. The appropriate and efficient use of software applications and related media to access and evaluate information, analyze and solve problems, and communicate ideas is essential to maximizing the instructional process. Such use of technology supports teaching and learning regardless of individual learning style, socio-economic background, culture, ethnicity, or geographic location.”*

The Guidelines define the general knowledge and skills base that teachers should possess to accomplish these goals. The WCCUSD Educational Technology Plan is also consistent with the *California Teacher Credentialing Guidelines* and strives to make technology an integral part of professional development across all curriculum areas. The Enhancing Education Through Technology (EETT) program, established as a part of the federal No Child Left Behind (NCLB), advances the federal goals for technology in education. The committee addressed the EETT criteria and requirements in revising the Plan.

### **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. At all levels, students are expected to utilize the tools of technology to further their learning. The Special Education Assistive Technology Center and special education specialists ensure that students with disabilities are provided access to appropriate assistive technologies. At many 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 or in the teachers’ lounge. Almost every school in the district has a computer lab and over 25 schools offer after school technology classes and computer access via the after-school grant programs offered at the sites.

The chart on the next page shows the current accessibility conditions.

<b>WCCUSD Computer Inventory 9/28/07</b>			
	Elementary	Middle	High
Total Number of Computers	3362	1572	2530
Student to Computer Ratio	4.9	3.3	3.6
% Of Computers <1 year old	3.1%	8.4%	8.3%
% Of Computers 1-2 years old	20.5%	21.2%	14.9%
% Of Computers 2-3 years old	9.5%	3.1%	4.8%
% Of Computers 3-4 years old	9.8%	4.7%	3.9%
% Of Computers > 4 years old	64.4%	62.5%	68%
% Of Schools with Computers in Library/Media Center	80%	100%	100%
% Of Schools with Computer Labs	90%	100%	100%
% Of Classrooms with Internet Connection	90%	100%	100%

As part of an EETT competitive grant which expired in 06-07, the District developed a collaborative partnership with Street Tech, a non-profit organization that has provided close to 150 students with refurbished computers, who would otherwise have no access to technology in the home. A large number of parents use computers to access the Internet at the public libraries serving each of the cities within the District. No current data is available about access to computers at home by students and their families, or by teachers. As described later, one component of this plan is to establish baseline data that will be updated on a yearly basis. 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 12<sup>th</sup> grade.

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

The use of instructional technology to support teaching and learning varies greatly from site to site. Most of our schools have computer labs and many have classroom computers, but their use is directly related to teachers’ proficiency in technology integration as well as the functionality of the computers. In most schools, technology is not being used on a daily basis in reading/language arts, mathematics, or to support other core academic content areas. The few schools that have technology teachers (either full or part-time) use their labs for whole class work on a variety of tasks, including keyboarding skills, word processing, Internet research, or practicing skills using site-specific software. There is little application of technology for solving and analyzing problems or presenting materials. Although students are using technology for research, there is little use of the Internet to communicate and correspond with experts or other students.

Much of the district's technology resources are being used to fill specific academic needs. The Curriculum and Instruction staff provided the following list of software currently used to support teaching and learning: iPass; Geometry Sketchpad; TI-Navigator (with Graphing Calculators); Carnegie Learning CAHSEE Math Prep and other CAHSEE prep tools such as Revolution Prep, Test Tools, ETS Criterion writing and ESL Reading Smart; Complete Microsoft Office (Word, Excel, PowerPoint) in every classroom to effectively operate and support all the components of the K-12 Math, Science, English Language Arts adoptions; Accelerated Reader, Read 180, and newly adopted core programs for K-12, as per requirement for the state approval qualification list, that include state-of-the-art comprehensive software. LeapFrog Schoolhouse is being used in elementary classrooms to give students extra practice in English Language Arts and as a take-home program for English Learners. Each child's data is tracked and the teacher assigns LeapPad tasks accordingly. The LeapPads are used during the Open Court workshop time. All high schools provide courses in computer applications and three high schools offer a web site development course, or career-related computer instruction in small learning community settings including academies.

(I removed the Teacher Tech Frequency of Use table from here. According to the reader, it should go in 4a.)

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 2000 as the operating systems. Microsoft Office 2000 is the current 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.

Despite the data, WCCUSD has implemented a number of activities to promote and enhance the use of technology. Funding from the EETT program allowed us to expand technology use for students at three middle schools. Teachers increased from 0% to 100% use of calculators in basic math, Algebra 1, statistics and graphing for target seventh and eighth grade students. Via the County's *Ed1Stop* portal, there was an increase in access and usage of online programs such as United Streaming, Grolier's online encyclopedia, Digital English, Digital Math, TumbleBook Library, and Marco Polo. Teachers use Ed1Stop to find resources to enhance their lessons or for student use. Uses of online tools for research, instruction, and instruction enhancement have been corroborated by classroom observations. Students and teachers alike appear to experience an increase in interest and motivation through the extensive and engaging interactivity from the access to the web sites. However, these pilot efforts were not fully institutionalized, or replicated, due to lack of funding. Although participant teachers maintain an adequate level of implementation, we need to provide for better coordination and dissemination of best practices in technology integration.

In addition, some schools provide a list of technology resources on their school web site and, as described earlier, all teachers and students have access to the Contra Costa

County Office of Education Ed1Stop portal which provides a rich array of technology resources for both teachers and students.

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

The Educational Technology Plan is driven by the state and District curriculum standards and supports the instructional goals of the West Contra Costa Unified School District. This section summarizes the key educational goals and standards that form the framework for the Strategic Plan.

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

We commit to provide all students with the highest quality education so that they will make positive life choices, strengthen our community, and participate successfully in a diverse and global society. We provide excellent learning and teaching experiences, safe and student-centered learning environments, support for all employees, development of productive community partnerships, and individual and collective accountability.

#### **Goals<sup>1</sup>:**

1. All students will score proficient and above on CST's in Reading/Language Arts, including all writing standards, and math.
2. All students will score proficient on the California High School Exit Exam (CAHSEE).
3. All English Learners will be reclassified Fluent English within 5 years or less of entering the District.
4. Develop a coherent and aligned program of teaching and learning K-preschool through adult school that is standards based, and results in competent and proficient students who succeed in school and later life.

#### **Focus Areas for 2008-2011<sup>2</sup>:**

- Full implementation and use of a Benchmark assessment program in monitoring student progress, the success of instruction and standards based learning;
- Access for English Learners (EL) to standards-based content and CELDT-differentiated ELD instruction that builds the ELD to RLA Standards Bridge and ensures one level of CELDT growth per year;
- Focus on Academic Language Development that provides access to grade level standards and core curriculum and assists in closing the achievement gap.

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<sup>1</sup> Specific measurable objectives are established by School Site Councils and Instructional Leadership Teams at every school, based on a thorough needs assessment.

<sup>2</sup> Emphasis on these areas of focus began during the 2007-08 school year. Schools develop yearly objectives aligned with the focus areas.

- Application of standards for writing strategies and related skills resulting in strong writing and writing concepts across content areas and in a variety of genres;
- Implementation of a coherent and sequential program of teaching and learning through the application of *Edgenuity* and a systematic approach that aligns assessment, use of data, planning and instruction and professional development;
- Systematic and direct support to ALL teachers and students (pre-K-12) so that students perform at a proficient level (380 or higher) on the California High School Exit Exam (CAHSEE);
- Strong rigorous, standards based, first instruction that includes differentiation according to need, early interventions, early accelerations and early preventions.

The Focus Areas for subsequent years remain the same with special emphasis on Math and Science in 2009-10 and English Language Arts in 2010-2011.

The West Contra Costa USD Technology Plan is aligned with all District and school plans and designed to address and support these goals. Specific, measurable, yearly objectives are established by School Site Councils and school-based Instructional Leadership Teams. This document provides the guidance necessary to ensure that technological resources (computers, peripherals, VCRs, cable TV, telephone, and video systems) are used in an integrated manner for improved student achievement via the efficient delivery of services.

### **District Mission for Technology Use:**

Technology is key to learners' achievement of rigorous standards-based curriculum content and the development of skills that are essential to citizenship in a changing local and global environment.

The role of technology in the West Contra Costa USD is to enhance student learning; increase professional productivity; and contribute to the efficient delivery of education-related services. Technological resources enhance instruction and learning, communication, informed decision making, to support the educational needs of students, staff, and community.

### **Technology Integration.**

This Plan addresses two levels of technology adoption:

1. Technology Literacy: the use of technology through the mastery of technology skills such as basic computer operations, word processing, publishing and presentations, e-mail and the conducting of online searches.

2. Technology Integration: (a) use of technology to foster problem solving and critical thinking skills, create authentic learning environments and address multiple learning styles in a standards-driven classroom; and (b) embedment of technology in professional development.

The plan allows the District and all schools to focus on the following benefits of Technology:

- Data analysis, both formative and summative, to inform day-to-day instruction;
- Use of electronic tools for demonstration of creative and innovative thinking
- Digital media and environments to communicate and work collaboratively
- Digital tools to gather, evaluate, and use information
- Digital resources to be used in critical thinking
- Use of courseware matched to students' learning styles and academic needs
- Ability to enhance workplace skills
- Equity for all students via technology-enhanced core-units.

In alignment with the District's Strategic Plan, the activities and strategies of this educational technology plan align with the District areas of focus on a year-to-year basis.

**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.**

<p><b>Goal 3d.s<sup>3</sup>1:</b> Increase the number of students K-12 who use technology for learning and producing quality projects in a variety of modes, as demonstrated in classroom, school, District and state assessments.</p>
<p><b>Objective 3d.s1:</b> Students will master technological skills and use technology to demonstrate creative thinking and develop innovative presentations and processes as measured by classroom observations, displays of student work.</p>
<p><b>Year 1 Benchmark:</b> All students use technology to gain access and use information to develop, display, and present their learning.</p>
<p><b>Year 2 Benchmark:</b> All students demonstrate computer literacy as a graduation from middle and high school, either by completion of coursework or by examination.</p>
<p><b>Year 3 Benchmark:</b> All teachers use an articulated instructional technology sequence and the district has established partnerships with businesses and the community for K-12 community-based projects.</p>
<p><b>Goal 3d.s2:</b> Increase the number of students K-12 who use technology for research, problem-solving, and decision-making in a variety of modes, as demonstrated in classroom, school, District and state assessments.</p>
<p><b>Objective 3d.s2:</b> 100% of students have access to—and use—technology that is incorporated in all courses.</p>
<p><b>Year 1 Benchmark:</b> 100% of students and teachers have access to—and use—technology that is incorporated the District focus areas of writing, ELD as well as academic intervention and all CAHSEE-related classes.</p>
<p><b>Year 2 Benchmark:</b> 100% of students and teachers have access to—and use—technology that is incorporated the District focus areas of writing, ELD as well as academic intervention and all CAHSEE-related classes, Math and Science.</p>
<p><b>Year 3 Benchmark:</b> 100% of students and teachers have access to—and use—technology that is incorporated the District focus areas of writing, ELD as well as academic intervention and all CAHSEE-related classes, Math and Science, and English Language Arts instruction.</p>

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<sup>3</sup> “s” goals are goals for students

**Goal 3d.t<sup>4</sup>:** All teachers will use technology to improve the delivery of instruction and to assist students in meeting academic content standards, District curricular goals, and to close the achievement gap.

**Objective 3d.t1:**

100% of teachers will use technology to gather formative and summative assessments to inform instruction, provide accountability, and identify critical areas of need to target across the District.

**Year 1 Benchmark:**

50% of teachers will use technology to gather formative and summative assessments to inform instruction, provide accountability, and identify critical areas of need to target across the District.

**Year 2 Benchmark:**

75% of teachers will use technology to gather formative and summative assessments to inform instruction, provide accountability, and identify critical areas of need to target across the District.

**Year 3 Benchmark:**

100% of teachers will use technology to gather formative and summative assessments to inform instruction, provide accountability, and identify critical areas of need to target across the District.

**Objective 3d.t2:**

75% of teachers will use technology to support English Learners' access to standards based learning in content areas and ELD instruction.

**Year 1 Benchmark:**

35% of teachers will use technology to support English Learners' access to standards based learning in content areas and ELD instruction.

**Year 2 Benchmark:**

65% of teachers will use technology to support English Learners' access to standards based learning in content areas and ELD instruction.

**Year 3 Benchmark:**

100% of teachers will use technology to support English Learners' access to standards based learning in content areas and ELD instruction.

**Objective 3d.t3:**

75% of teachers will use technology to enhance Academic Language Development by providing access to support grade level materials and assist in closing the achievement gap.

**Year 1 Benchmark:**

35% of teachers will use technology to enhance Academic Language Development by providing access to support grade level materials and assist in closing the achievement gap.

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<sup>4</sup> "t" goals are for teachers

**Year 2 Benchmark:**

65% of teachers will use technology to enhance Academic Language Development by providing access to support grade level materials and assist in closing the achievement gap.

**Year 3 Benchmark:**

100% of teachers will use technology to enhance Academic Language Development by providing access to support grade level materials and assist in closing the achievement gap.

**Objective 3d.t4:**

100% of teachers will use technology to provide support to the focus on writing standards, especially writing strategies standards k-12 in Year 1 and additional focus on Math, Science and Language Arts in subsequent years.

**Year 1 Benchmark:**

50% of teachers will use technology to provide support to the focus on writing standards, especially writing strategies standards k-12.

**Year 2 Benchmark:**

75% of teachers will use technology to provide support to the focus on writing standards, especially writing strategies standards k-12 and 50% will provide additional focus on Math, Science and ELA.

**Year 3 Benchmark:**

100% of teachers will use technology to provide support to the focus on writing standards, especially writing strategies standards k-12 and 100% will provide additional focus on Math, Science and Language Arts in subsequent years.

**Objective 3d.t5:**

Teachers will use technology to complement Pre-school—Adult School education so students perform at a proficient level (380 or higher) on the California High School Exit Exam (CAHSEE).

**Year 1 Benchmark:**

All High School teachers will use technology to complement Pre-school—Adult School education so students perform at a proficient level (380 or higher) on the California High School Exit Exam (CAHSEE).

**Year 2 Benchmark:**

All High School and Middle School teachers will use technology to complement Pre-school—Adult School education so students perform at a proficient level (380 or higher) on the California High School Exit Exam (CAHSEE).

**Year 3 Benchmark:**

All Teachers will use technology to complement Pre-school—Adult School education so students perform at a proficient level (380 or higher) on the California High School Exit Exam (CAHSEE).

## Implementation Plan

<b>Activities</b>	<b>Timeline</b>	<b>Person(s) Responsible</b>	<b>Monitoring &amp; Evaluation</b>
Conduct a survey of faculty and staff to determine degree of computer use	March, Yearly	Deputy Superintendent	Survey results
Conduct a survey of students to determine degree of computer use	March, Yearly	Deputy Superintendent	Survey results
Draft tally by feeder schools to determine computer use for sequential instruction purposes and equity of access.	April, Yearly	Deputy Superintendent	Tally results
Establish a centralized Instructional technology information and electronic resources preview system	August 2008	Deputy Superintendent and Associate Sup. Operations <sup>5</sup> with CTAP	System established
Establish the Technology C&I Committee (TCI) formed of a cross-departmental C&I team and instructional technology specialist(s)	August 2008	Deputy Superintendent and Associate Sup. Operations with CTAP	TCI established and meeting
Identify technology resources and skills in District academic curricula based on the yearly District areas of focus and the District adopted textbooks and intervention materials and Initiate the task of creating an embedded scope and sequence of technology skills and CST standards	Jan. 2009	Deputy Superintendent	List available for C&I to develop tech scope and sequence
Provide on-going training and support to all teachers in the use Edusoft	Ongoing	Deputy Superintendent	# of teachers trained
Identify technology resources currently in use at all schools	March, Yearly	Deputy Superintendent and Associate Sup. Operations via CA Tech Surv.	List available
Review existing—and enhance—partnerships with local universities,	December 2008 and	Deputy Superintendent	Partnerships formalized

<sup>5</sup> Jeff Edmison, Associate Superintendent for Operations

colleges, museums and other educational agencies to develop technology-based learning resources, student services and professional development.	On-going		around TCI
Technology scope and sequence—Curriculum committee reviews integrated technology scope and sequence and identifies strategies for the use of technology at all grade levels	March 2009	Deputy Superintendent	Technology integration in C&I in process
Establish bank of artifacts—Writing teams create online lessons, curriculum pages online, and modules for lessons supporting the Technology Learning Standards	July 2009	Deputy Superintendent	Artifacts uploaded
Establish bank of artifacts—(cont'd) Teacher teams design online professional development modules such as Information Literacy and the Net, designed to guide all teachers through a set of explorations and understandings of Internet use in the classroom.	July 2009	Deputy Superintendent	Artifacts uploaded
Include technology as a standing agenda item for all elementary and secondary curriculum meetings.	Begin August 2008	Deputy Superintendent	Meeting agendas
Include technology as a standing agenda item for Teaching and Learning Cabinet meetings.	Begin August 2008	Deputy Superintendent	Meeting agendas
Establish electronic communication protocol and enhance the use of such as a standard for all team work on curriculum and instruction	August 2008	Deputy Superintendent	Documentation of use of tech for communication
Develop an electronic template for school site technology plans that are aligned with the District curriculum & Instruction and Technology Plans.	August 2008	Deputy Superintendent	Template available online
Develop, or update school technology plans as needed	September, Yearly	Deputy Superintendent	Plans developed and updated
Ensure all schools have a web site	December 2009	Deputy Superintendent and Associate Sup. Operations	Web sites up
Ensure all Departments have a web site	December	Deputy	Web sites up

	2009	Superintendent and Associate Sup. Operations	
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**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.**

<p><b>Goal 3e:</b> 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, information processors, and producers of knowledge. This will include, but not limited to, using technology to utilize electronic mail, word processing programs, electronic publishing software, spreadsheet programs, courseware and related software and Internet search and retrieval programs.</p>
<p><b>Objective 3e.1:</b> Increase the number of students K-12 who will acquire age and grade level appropriate technology and information literacy skills aligned with the 2007 National Educational Technology (NETS-S) Standards for Students and the Information and Communication Technology (ICT) Literacy Framework for 21st Century Learning.</p>
<p><b>Year 1 Benchmark:</b> 40% of K-12 students will acquire age and grade level appropriate technology and information literacy skills aligned with the 2007 NETS Standards for Students and the ICT Framework for 21st Century Learning.</p>
<p><b>Year 2 Benchmark:</b> 65% of K-12 will acquire age and grade level appropriate technology and information literacy skills aligned with the 2007 NETS Standards for Students and the ICT Framework for 21st Century Learning.</p>
<p><b>Year 3 Benchmark:</b> 85% of K-12 students will acquire age and grade level appropriate technology and information literacy skills aligned with the 2007 NETS Standards for Students and the ICT Framework for 21st Century Learning.</p>

**Implementation Plan**

<b>Activities</b>	<b>Timeline</b>	<b>Person(s) Responsible</b>	<b>Monitoring &amp; Evaluation</b>
Develop or adapt a scope and sequence for technology and information literacy skills that is aligned with the 2007 NETS Standards for Students, the Partnership for 21st Century Skills Information and Communication Technology (ICT)	Year 1 and ongoing	Director of C/I or Technology Coordinator	Alignment with Pacing & Instructional Guides documents

Literacy Framework, and WCCUSD Pacing & Instructional Guides			
Identify the scope and sequence to guide development of a K-12 Technology and Information Literacy Curriculum that incorporates best practice, age and grade specific strategies, units, lessons, projects and activities.	Year 1 and ongoing	Director of C/I or Technology Coordinator	The "Scope and Sequence" document
Train administrators and teachers in the scope and sequence, 2007 NETS Standards for Students, the Partnership for 21st Century Skills Information and Communication Technology (ICT) Literacy Framework, and WCCUSD Pacing & Instructional Guides.	Year 1 and ongoing	Director of C/I or Technology Coordinator	Training conducted/sign-in, feedback
Teachers with support from trained staff will begin/continue to implement instruction in technology skills and information literacy skills in order to address grade level standards.	Year 1 and ongoing	Director of C/I or Technology Coordinator	Observations, Walk Throughs, Lesson Plans
Students will successfully complete one or more technology-enriched assignments or projects that demonstrate age and grade-level appropriate technology and information literacy proficiencies and 21st Century Skills identified in the K-12 Technology and Information Literacy Scope and Sequence in ELA and Math.	Year 2 & 3	Director of C/I or Technology Coordinator	Student Work
Develop high quality technology courses in at the secondary level as a vehicle to teach 21 <sup>st</sup> Century Technology and Information Literacy skills.	Planning in Year 1 and implement in 2 & 3	Director of C/I, Technology Coordinator, & Associate Superintendent of Secondary Education	Course Syllabi

**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 ethical use of information technology so they can distinguish lawful from unlawful uses of copyrighted work.

**Implementation Plan**

<b>Activities</b>	<b>Timeline</b>	<b>Person(s) Responsible</b>	<b>Monitoring &amp; Evaluation</b>
Post, enforce, and distribute the acceptable use of electronic communications systems and network policy.	July 2008	Associate Sup. Operations	Policy available in physical locations and online
Promote building-level coordination for the policy by the school principal	July 2008 and yearly	Deputy Superintendent and Associate Sup. Operations	Principal signature of assurance page and follow-up
Ensure teachers receive proper training in the use of technology and the requirements of the policy	October 2008 and yearly	Deputy Superintendent and Associate Sup. Operations	# of current teachers trained
Monitor students' use of the internet	Ongoing	Associate Sup. Operations	Random checks
Ensure that teachers advocate, practice, and provide instruction and discussion opportunities on the safe, legal, and responsible use of information and technology.	Ongoing	Deputy Superintendent and Associate Sup. Operations	Teachers assurances and faculty meeting agendas

**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.**

<b>Goal 3g:</b> All District users will be ensured online privacy and online predators will be forbidden access via pre-screening, monitoring and the implementation of filtering software.			
<b>Implementation Plan</b>			
<b>Activities</b>	<b>Timeline</b>	<b>Person(s) Responsible</b>	<b>Monitoring &amp; Evaluation</b>
Establish access to web sites with prescreened, appropriate, educationally relevant material that is relevant to the students' assignment or work.	Ongoing	Associate Sup. Operations and Deputy Superintendent	Random checks and lists of web sites accessed
Structure electronic activities and coordination of resources in a manner that is appropriate to the age and skills of students. Provide training about cyber-bullying.	Ongoing	Associate Sup. Operations and Deputy Superintendent	Training agendas for students and # of students trained
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	Associate Sup. Operations	# of blocked sites and e-mails

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

<b>Goal 3h:</b> All students, including special education, GATE, English Language Learners, and underachieving students will have access to technology, including assistive devices, on a daily basis.
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**Implementation Plan**

<b>Activities</b>	<b>Timeline</b>	<b>Person(s) Responsible</b>	<b>Monitoring &amp; Evaluation</b>
Appoint representatives from special education, GATE, and English Language Learners to serve on the Technology Integration Leaders	Ongoing	Deputy Superintendent	Dept. staff on TIC

cadre to ensure the needs of their students are met.			
Provide a list of locations for after-school access to technology in community centers, libraries, or extended lab or media center hours to ensure wider access for students and parents.	Ongoing	Deputy Superintendent	After-school program reports and evaluation
Identify and post on the District website technology resources appropriate for special education, GATE, and English Language Learners.	Ongoing	Deputy Superintendent	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	Deputy Superintendent	After-school program reports and evaluation
Continue to maintain and more widely promote the Special Education Assistive Center in order to provide access to and information about assistive devices for special education students. Identify new and promising assistive technology to include in the Assistive Center.	Ongoing	Deputy Superintendent	Special Education reports
Work with the Bilingual Department to produce a video series illustrating classroom technology strategies that support English Language Learners in Reading/Language Arts and Mathematics.	Ongoing	Deputy Superintendent	ELD reports and evaluation
Partner with community based programs to establish after-school access to technology for parents and students.	Ongoing	Deputy Superintendent	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	Associate Sup. Operations and Deputy Superintendent	Yearly reports via EETT and other community involvement programs
Develop and implement a program for schools to provide loaner computers for a take-home program for students without access at home.	Ongoing	Associate Sup. Operations and Deputy Superintendent	# of laptops/PCs loaned to students without home access

		ent	
Write grants to acquire computer equipment and software	Ongoing	Deputy Superintendent	Funds raised to support this plan

**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.**

<b>Goal 3i:</b> Technology will be used to improve the quality of student assessment and recordkeeping
<b>Objective 3i.1:</b> By June 2011, 80% of teachers and 100% of administrators will use technology to improve the quality of student assessment data to make student record keeping more efficient and help increase student achievement
<b>Year 1 Benchmark:</b> By June 2009, 50% of teachers and 80% of administrators will use technology to improve the quality of student assessment data to make student record keeping more efficient and help increase student achievement.
<b>Year 2 Benchmark:</b> By June 2010, 65% of teachers and 90% of administrators will use technology to improve the quality of student assessment data to make student record keeping more efficient and help increase student achievement.
<b>Year 3 Benchmark:</b> By June 2011, 80% of teachers and 100% of administrators will use technology to improve the quality of student assessment data to make student record keeping more efficient and help increase student achievement.

**Implementation Plan**

Activities	Timeline	Person(s) Responsible	Monitoring & Evaluation
Ensure all teachers and administrators have access to the appropriate technology-based data management tools (SASI, EduSoft and Edgenuity) and ensure that they have the support to use these tools.	Year 1 and ongoing	Associate Sup. Operations and Technology Support Staff	Evidence of staff accessing these tools
Require that all certificated staff participate in training on the technology tools used to manage data and assessment in the district	Year 1 and ongoing	Deputy Superintendent and Associate Sup.	Number of staff completing training and

		Operations	number of staff using data tools
Continue to increase implementation by teachers and administrators of the appropriate technology-based data management tools (SASI, EduSoft and Edgenuity) to support the District's student recordkeeping and assessment, to help inform teacher instruction and improve student achievement.	Ongoing	Associate Sup. Operations and Deputy Superintendent	Evidence of staff accessing these tools and electronic student reports

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

<b>Goal 3j:</b> All teachers and administrators will increase the frequency of two-way home and school communication through the use of technology based tools.
<b>Objective 3j.1:</b> By June 2011, 90% of schools, teachers and administrators will utilize one or more of the following tools at least once a week to facilitate two-way communication between home and school: WCCUSD e-mail, school and district websites, SASI, VOIP, and future web access to Edgenuity.
<b>Year 1 Benchmark:</b> By June 2009, 50% of schools, teachers and administrators will utilize one or more of the following tools at least once a quarter to facilitate two-way communication between home and school: WCCUSD e-mail, school and district websites, SASI, VOIP, and future web access to Edgenuity.
<b>Year 2 Benchmark:</b> By June 2010, 70% of schools, teachers and administrators will utilize one or more of the following tools at least once a month to facilitate two-way communication between home and school: WCCUSD e-mail, school and district websites, SASI, VOIP, and future web access to Edgenuity.
<b>Year 3 Benchmark:</b> By June 2011, 90% of schools, teachers and administrators will utilize one or more of the following tools at least once a week to facilitate two-way communication between home and school: WCCUSD e-mail, school and district websites, SASI, VOIP, and future web access to Edgenuity.

**Implementation Plan**

Activities	Timeline	Person(s)	Monitoring
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		<b>Responsible</b>	<b>&amp; Evaluation</b>
Conduct ongoing staff trainings in the effective use of recommended two-way, home-school communications tools for webpages, e-mail, VOIP and other appropriate tools.	Year 1 & ongoing	Associate Sup. Operations & technology Support Staff	Attendance at trainings and increase in use of tools
Develop or adapt and disseminate model web page templates to facilitate two-way, home-school communications.	Year 1	Director of Communications	Websites
Continue and expand use of Connect-Ed to record, schedule, send, and track personalized voice messages to students, parents, and staff.	Ongoing	Associate Sup. Operations and Deputy Superintendent	Frequency of and reason for using Connect-Ed, by site
Expand opportunities for instructional programs for families using the resources of the schools, the local cable television channel and other distance education technologies	Ongoing	Associate Sup. Operations	Availability of programs
Strengthen partnerships with parents, community organizations, educational institutions, the business community, and city/county agencies expand opportunities for technology volunteers and provide secondary students with community-based opportunities to use technology.	Ongoing	Deputy Superintendent and Associate Sup. Operations	# of volunteers participating in outreach and training programs

**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 educational reforms. There are two types of student learning that are included in the technology curricular goals and benchmarks.

The first type of goal is directed toward student learning in the curricular areas. To evaluate the impact of the technology plan on student curricular achievement, a variety of normed and criterion based assessments, including the California Standards Test

(CST), California High School Exit Exam, and a variety of WCCUSD assessments more closely aligned to the District's curricular goals, will be used.

The second type of goal is directed toward student use of and competence with technology. This will be by student and teacher surveys (CA School Technology Survey and EdTechProfile) 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, student and teacher surveys (CA School Technology Survey and EdTechProfile), and classroom observations of student engagement with technology resources.

### ***Schedule for Evaluating Technology Use***

<b>Area of Focus</b>	<b>Evaluation Instrument(s) &amp; Data To Be Collected</b>	<b>Frequency of Collection</b>
<b>Student Learning (Academic)</b>	<p><b>Standardized Tests</b>            CST Language Arts scores            CST Mathematics scores            CELDT data</p> <p>High School Exit Exam scores</p> <p><b>Districtwide Assessments</b>            Writing and ELD academic data as well as Language Arts scores and Mathematics/ Science scores</p>	<p>March - August</p> <p>Three times a year</p>
<b>Student Learning (Use &amp; Technology Competence)</b>	<p><b>Student technology-related Work Products</b>            Teachers collect random samples at elementary, middle and high schools</p> <p><b>EdTechProfile Technology Assessment Profile</b>            Student Use for Writing, Reading/Language Arts and mathematics as well as research.</p> <p><b>Classroom Observations by Principals and technology specialist(s)</b></p>	<p>January - March</p> <p>April – May</p> <p>Bi-monthly</p>
<b>Learning Environment</b>	<p><b>EdTechProfile Technology Assessment Profile</b>            Student Use for Writing, ELD, Reading/Language Arts and mathematics            Percentage Technology Integration Skills (Standard 9 &amp; 16)</p> <p><b>California School Technology Survey</b>            Percentage of administrators' use of technology            Percentage of student use of technology</p>	<p>April – May</p> <p>January - March</p>

<b>Professional Development</b>	<b>EdTechProfile Technology Assessment Profile</b> Computer Knowledge and Skills Technology Integration Skills Personal Use  <b>Workshop Evaluations</b> Effectiveness of trainings	April – May  At conclusion of each professional development course
<b>Infrastructure, Hardware, etc.</b>	<b>CA School Technology Survey</b> 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 Deputy Superintendent, the Associate Superintendent for Operations and the Senior Director of Curriculum and Instruction, or their designees, 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. Twice a year, the status of progress toward the Educational Technology Plan goals will be reported to the Technology Advisory Committee (TAC) and the Teaching and Learning Cabinet (TLC). The Technology Advisory Committee includes teachers, site principals, librarians, Information Services, business and educational reform partners. TAC will make recommendations for modifications after close examination of the data. The members of Teaching and Learning Cabinet are the Superintendent,

Cabinet members, Executive Directors for K-12 support, representatives from the Teaching & Learning Division. This group meets weekly to discuss the academic progress of the District. As part of this process, TAC will examine how technology is contributing to improve teaching and learning. These two groups will determine the overall effectiveness of the plan and assess the need to adjust or modify the activities, timelines, and budgets.

TAC 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.

#### 4. PROFESSIONAL DEVELOPMENT COMPONENT

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

Teacher & Administrator Tech Proficiency Levels – (EdTechProfile, 2006-07)					
	General Computer Knowledge and Skills	Internet Skills	E-mail Skills	Word Processing Skills	Presentation Software Skills
Not Applicable	3%	6%	6%	4%	27%
Beginning	27%	35%	29%	24%	38%
Intermediate	47%	40%	37%	32%	19%
Proficient	23%	20%	27%	40%	17%

Teacher Tech PD Needs (EdTechProfile, formerly EDTECHPROFILE, 2006-7) (39% of teachers reporting)	Basic Computer/Tech Skills	Integrating Technology into the curriculum
“I need opportunities to participate in educational technology staff development focused on:		
Percentage of Total	34%	66%

Although teachers and administrators have a range of technology skills from initial to advanced in general, effective use of technology is limited at best. The low level of participation in the technology survey reflects this and underscores the need for the district to increase its emphasis on using technology and technology-based tools. Such an emphasis begins with an effective professional development plan. This plan will include two primary components. The first is basic technology skills. The second is

effectively integrating these skills into curriculum and instruction as well as assessment and data management.

Administrators and staff have been provided some training that includes email, Edusoft, Connect-ED, electronic learning resources through ed1stop and textbooks, and other data management tools. The district knows that they need to increase technology training and future training needs to be aligned to other professional development happening across the district.

Staff development needs are around the implementation of our technology scope and sequence aligned to the K-12 curriculum. Teachers also expressed a need to learn how to access instructional resources online for use in their classrooms. There is also an ongoing need to train new teachers that are hired each year and are not familiar with technology and the tools available in the WCCUSD. Needs also include more training with Edusoft to conduct classroom-based assessment and the newly acquired Edgenuity, a system to be institutionalized District-wide in 2008-09.

Current and future textbook adoptions, supplemental instruction and academic interventions include technology components that require teachers to be competent technology users. Access to the baseline technology package allows teachers to develop technology enhanced lessons and instructional materials that provide differentiated instruction for all students. Both teachers and administrators will be expected to make regular use of e-mail and Internet for communications and information and to analyze and interpret data on a regular basis to improve instructional practices. The present level of technology skills of both teachers and administrators must be upgraded to meet these expectations.

**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).**

**Overarching goal: Improve the use of technology district wide**

**Goal 4b1:**

All instructional and technology leaders will receive training on techniques (coaching, modeling) to facilitate the effective use of technology to support teaching and learning.

**Objective 4b1:**

By June 2011, 100% of all instructional and technology leaders will receive training on techniques (coaching, modeling) to facilitate the effective use of technology to support teaching and learning

**Year 1 Benchmark:**

By June 2009, 50% of all instructional and technology leaders will receive training on techniques (coaching, modeling) to facilitate the effective use of technology to support teaching and learning.

**Year 2 Benchmark:**

By June 2010, 70% of all instructional and technology leaders will receive training on techniques (coaching, modeling) to facilitate the effective use of technology to support teaching and learning.

**Year 3 Benchmark:**

By June 2011, 100% of all instructional and technology leaders will receive training on techniques (coaching, modeling) to facilitate the effective use of technology to support teaching and learning.

**Goal 4b2:**

All instructional personnel will receive training in appropriate technology skills (information literacy, cybersafety, assessment & data management...) and instructional strategies to facilitate the effective use of technology in the classroom.

**Objective 4b2:**

By June 2011, 100% of instructional personnel will receive training in appropriate technology skills and instructional strategies to facilitate the effective use of technology in the classroom.

**Year 1 Benchmark:**

By June 2009, 50% of instructional personnel will receive training in appropriate technology skills and instructional strategies to facilitate the effective use of technology in the classroom.

**Year 2 Benchmark:**

By June 2010, 70% of instructional personnel will receive training in appropriate technology skills and instructional strategies to facilitate the effective use of technology in the classroom.

**Year 3 Benchmark:**

By June 2011, 100% of instructional personnel will receive training in appropriate technology skills and instructional strategies to facilitate the effective use of technology in the classroom.

**Implementation Plan**

<b>Activities</b>	<b>Timeline</b>	<b>Person(s) Responsible</b>	<b>Monitoring &amp; Evaluation</b>
Train administrators and teachers in the use of the technology components of each adopted program.	December 2008 & ongoing	Deputy Supt.	Use of EETT funds, fiscal reports
Train administrators and teachers in the scope and sequence, 2007 NETS Standards for Students, the Partnership for 21st Century	Year 1 and ongoing	Director of C/I or Technology	Training conducted/sign-in,

Skills Information and Communication Technology (ICT) Literacy Framework, and WCCUSD Pacing & Instructional Guides.		Coordinator	feedback
Train administrators and teachers in the instructional techniques and assessments recommended to successfully implement technology into teaching and learning..	December 2008	Deputy Supt.	Training logs for SSC and ILTs; logs of use of relevant tools
Require that all certificated staff participate in training on the technology tools used to manage data and assessment in the district	Year 1 and ongoing	Deputy Superintendent and Associate Sup. Operations	Number of staff completing training and number of staff using data tools
Conduct ongoing staff trainings in the effective use of recommended two-way, home-school communications tools for webpages, e-mail, VOIP and other appropriate tools.	Year 1 & ongoing	Associate Sup. Operations & technology Support Staff	Attendance at trainings and increase in use of tools
Plan and implement staff development focused on information literacy, copyright, and the appropriate and ethical use of information technology.	February 2009 & ongoing	Deputy Supt.	# of administrators trained and using the provided tools
Use EdTechProfile and other data collected by district to assess and inform additional professional development needs. Individuals can share information via reports available to them.	Ongoing	Deputy Supt.	EdTechProfile results
Use staff buy-back days and monthly minimum days to bring more technology training into ongoing professional development and the site and district level.	Ongoing	Deputy Supt.	# of teachers trained
Explore opportunities for offering professional development online or via distance learning	Year 1 & Ongoing	Deputy Supt. & Assoc. Supt. for Operations	# of teachers benefiting from those opportunities

**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.**

<b>Evaluation Instrument(s) &amp; Data To Be Collected to assist in the monitoring of Professional Development</b>	<b>Frequency of Collection</b>
Summary report using data from the EdTechProfile, CDE Technology Survey, and other district created performance based measures.	Annually
Teacher Lesson Plans and Student Products	Annually
Observations of teacher instructional use of technology in the classroom setting	Annually
Sign-in Sheets & Number of attendees at workshops	Each professional development opportunity
Workshop Evaluations • Effectiveness of trainings	Each professional development opportunity
Technology Component for the Single Plan for Student Achievement (SPSA)	Annually

**Evaluating the Technology Professional Development Component**

The technology advisory committee (TAC) and Associate Superintendent at WCCUSD will use multiple measures to continually monitor the progress and success of the Technology Professional Development activities. Evaluation data will be collected from participants after workshops, through classroom observations, and the collection of teacher and student evidence/work. This information will be collected and reviewed each semester and a report will be submitted to the Teaching and Learning Cabinet.

Finally, to evaluate the overall success of our professional development offerings, we will utilize the EdTechProfile and the CDE Technology Survey and other performance based measures to gather assessment data. Beginning with an initial baseline assessment in the spring of 2008, teachers will complete the EdTechProfile and other performance based assessments each spring. Using comparative data, we expect to see an increase in the use and integration of technology. Classroom observations will be conducted and observation data will help inform district leaders on how teachers are using technology to improve teaching practice and increase student achievement.

## 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, North Richmond and unincorporated areas in west Contra Costa County which includes 19 preschools, 39 elementary, 8 middle, 16 high schools & alternative schools, 60 Adult Education sites and 9 operations facilities. The District technology infrastructure supports over sixty sites and over forty thousand administrative, teacher and student users.

**Hardware:** According to the 2006-07 California Technology Survey there are 7,464 instructional and 396 administrative computers. 64.9% of the instructional computers are older than four years. While Dell has recently become the standard for instructional and administrative computers, older instructional computers are an assortment of makes and models, including clones and older IBM models with a variety of operating systems. There is also a 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 individual schools. <sup>6</sup>

**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 40 MB connection to the Internet. However, some computers lack connectivity, primarily in schools that have not yet had their internal networks upgraded. Some of these schools are scheduled for completion through Bond or e-rate in the next two years.

Much positive change is underway to modernize the District infrastructure, security and management systems. 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. <sup>7</sup> The following major projects are completed or are underway to implement the report's recommendations, supported by Measure J Bond funds, e-rate, and California Telecommunications Fund discounts:

- Upgrade backup hardware
- Wide area network bandwidth increases to 1 Gigabyte to the core

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<sup>6</sup> See Appendix B , page 28: "Environmental Assessment and Recommendations Report," November 20, 2006 conducted by Projects Assistants for West Contra Costa Unified School District, Information Systems Department

<sup>7</sup> See Appendix B page 2

- SAN Wide Area Network storage solutions
- SASI upgrades
- BiTech upgrades to the financial, HR and payroll systems
- Network monitoring and security management
- Continued deployment of District-wide VOIP to replace current phone system
- Migration of remaining Novell environments to a Windows 2003

*(See Appendix B for more details on the current status of the District's infrastructure and hardware.)*

**Electronic Learning Resources:** As outlined in “Curriculum: 3b. Current Use” above, 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, Leap Frog, and My Reading Coach.

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. Currently, the District has been unable to take advantage of these resources due to the number of aging computers and infrastructure.

The District is implementing the web-based Edgenuity data system as part of a systematic approach to align assessment, use of data, planning and instruction, and professional development. This initiative is dependent on a robust and reliable network, teacher access to connected computers and interfaces between what are now diverse legacy systems. For example, the current SASI and Special Education data systems and SASI and the financial systems do not communicate with each other.<sup>8</sup>

In addition, 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

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<sup>8</sup> Appendix B, page 37

switching hubs 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 staff under an Executive Director of Technology to support both the instructional administrative sides of the District. There are six desktop technicians to support 7,464 instructional and 396 administrative computers. There are three SASI support staff, three network technicians, two operations staff, one Helpdesk staff, and a VOIP administrator supported by three administrative and clerical positions. The Executive Director reports to the Associate Superintendent of Operations. In addition, most comprehensive high schools are using Technical Support Staff Training (TSST) funds to supplement the assistance provided by the District technicians.

**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 (3.c.) identified the focus areas for 2008-2010 and established goals that emphasized:

- Use of computers and the Internet to access rigorous, standards-based content for all students, with a focus on the EL population, through differentiated instruction, early interventions, early accelerations and early preventions. (Goals 3.d.)
- Equitable access to electronic tools that support critical thinking skills and collaborative learning. (Goal 3.h.)
- Increased two-way communications with the home to support student learning (Goal 3.j.)

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

- The systematic approach to the use of data to implement a coherent and sequential program of teaching and learning.
- The improved teacher technology proficiency
- The integration of technology across the curriculum
- Increase in the use of technology to better differentiate instruction

To achieve these Curriculum and Professional Development Goals, 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

and 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 that fit into teachers’ schedules and that supplement and reinforce face-to-face training. Teachers and students need to have access to tools that support collaborations.

Over the next three years the District will put in place the hardware and an infrastructure to ensure that students and teachers have that access to both existing and emerging learning and teaching resources:

- A standardized set of instructional hardware in each classroom, library/media center and school wide.
- 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 five students to each up-to-date computer of 5:1, which is the state standard.
- Robust, reliable 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 (Goals 3.d.-3.h.), computers must be both robust and reliable. If the end user computer is slow and lacks adequate memory, neither students nor teachers will realize the benefits of an upgraded network. The District will implement the following:

- **Computer Replacement:** Like all school Districts in the state, the District acquired most of the 7,464 instructional computers using Digital High School (DHS), Enhancing Education through Technology (EETT), and other one-time funding sources that had no provisions for replacement. Most federal and state funding for technology, such as DHS and EETT, have been eliminated or dramatically reduced. In the absence of a stable funding stream for computers, schools keep computers well beyond their useful life and are unable to plan for their future needs. As computers age, the costs of maintenance increase in terms of parts, technical support and down time. Teachers are less willing to develop lessons that integrate technology if available computers are unreliable. The combination of obsolescent computers and uneven access is a barrier to full implementation of the math, science and English language adoptions other applications.

While the District student to computer ratio is 3.9 to 1 overall, the ratio of students to computers less than five years of age is 11:3 to 1.

The District will adopt a policy to replace instructional computers to maintain a minimum ratio of five students per computer that is less than five years in age, the current state standard. The price of each computer will include vendor imaging, lock down devices, and deployment and a minimum three year, on-site, next day warranty.

- Based on 2006-07 CBEDS data, this would require the replacement of 1,262 computers per year. Annual costs would be a function of a purchase vs. leasing plan. Not only will the computer replacement plan support the District's instructional goals, but the per computer maintenance costs will decline over time as a larger proportion of the computers are covered by warranty and aging, unreliable computers are removed from the classroom. *See Appendix A: Proposed Replacement Plan for Instructional Computers* **Standards and Baseline Technology:** The District will 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 will be driven by the District's instructional goals and the goals and strategies outlined in the Curriculum and Professional Development components and will 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 will be involved in the identification of the baseline technology and will 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.

**Infrastructure:** To support student access to existing and emerging learning resources (Goals 3.d.-3.h.) and improved 2-way communications with parents and guardians (Goals 3.j.) the District is now implementing the recommendations from the 2006 Environmental Assessment and Recommendations Report, including expansion of email, and a VOIP infrastructure to support voice, video and high speed data.. (See *Appendix B*)

### **Electronic Resources:**

- **Software Review Policy:** The District's software review policy will be reviewed to ensure that:
  - o The guidelines are aligned with the District's curriculum focus areas for 2008-11 (see Curriculum Component 3.c.).
  - o The District's existing hardware and infrastructure support the proposed software.

- o There is appropriate professional development associated with the deployment of any electronic instructional resource.
- o Technical support needs have been identified.
- **Web:** The Curriculum Component calls for the (a) addition of interactive applications, (b) online learning resources for teachers, students and parents and (c) web pages for all District departments and schools (Goals 3.d., 3.e. and 3.j.). Representatives from Teaching and Learning and Technology Services and will review the current web site and develop recommendations for a new curriculum section on the website. The committee will also 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.

**Physical Plant:** By 2009 the Technology Department will develop a plan to correct the conditions at the main computing center that were identified in the 2006 Assessment Report. (See Appendix B)

**Technical Support:** The District will continue to reduce the total cost of ownership (TCO), including the costs of technical support:

- 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.
- Revise the software review policy.
- Establish a computer replacement policy.
- Establish a policy that would either require schools to dispose of computers over 5 years of age or 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.**

<b>Goal 5c1: Hardware</b>
All students and teachers will have access to up-to-date computers and a standardized baseline of technology at each school to support the District adopted curriculum.
<b>Objective 5c1.a:</b>
By 2010 the ratio of students to up-to-date computers will be 7 to1
<b>Year 1 Benchmark:</b>
The ratio of students to up-to-date computers will be 11:3 to 1.
<b>Year 2 Benchmark:</b>

The ratio of students to up-to-date computers will be 8.8 to 1.

**Year 3 Benchmark:**  
The ratio of students to up-to-date computers will be 7 to 1.

**Implementation Plan**

Activities	Timeline	Person(s) Responsible	Monitoring & Evaluation
Continue to increase the number of District staff who have District email accounts.	Years 1, 2 and 3	Associate Sup. Operations	Number of email accounts
Finalize a five year computer replacement plan and budget	November 2008	Associate Sup. Operations	Board Policy, Administrative Regulation published
Develop an annual deployment plan.	April annually	Associate Sup. Operations	Plan submitted to T&L
Replace 20% of the computers up to a student to computer ratio of 5:1 (Budget permitting)	July 2009 2010 2011	Associate Sup. Operations	CA Technology Survey

**Objective 5c1.b:**  
20% of all instructional rooms will have a standardized package of hardware by 2011.

**Year 1 Benchmark:**  
10% of all instructional rooms will have a standardized package of hardware.

**Year 2 Benchmark:**  
15% of all instructional rooms will have a standardized package of hardware.

**Year 3 Benchmark:**  
20% of all instructional rooms will have a standardized package of hardware.

**Implementation Plan**

Activities	Timeline	Person(s) Responsible	Monitoring & Evaluation
Identify tech resources currently available at all schools.	March yearly	Deputy Superintendent and Associate Sup. Operations with Technology C&I Committee	List published

Define the standardized hardware package for elementary and secondary classrooms and library/media centers.	May 2009	Deputy Superintendent and Associate Sup. Operations with Technology C&I Committee	List published
Develop and present to Board a funding plan to implement the baseline school technology	May 2010	Deputy Superintendent and Associate Sup. Operations with Technology C&I Committee	Board minutes
Develop and review standards for all instructional and administrative hardware.	Annually	Associate Sup. Operations	Standards posted on Technology Services Web Page
Technology Services review of all hardware purchases to ensure the order meets hardware standards, is consistent with the standardized baseline technology goals and has required warranties.	Ongoing	Associate Sup. Operations	Approved purchase orders
Deploy needed hardware to bring 20% of instructional rooms up to the baseline technology.	January - May 2011	Associate Sup. Operations	CA Tech Survey; work orders

<p><b>Goal 5c2: Infrastructure</b>  All administrative and instructional rooms will be connected to a District broadband wide area network through robust local area networks that support high-speed voice, video and data. The WAN/LANs will be capable of supporting both instructional and management applications, of future upgrades with minimum costs and disruptions and improved communications within the District and with other partner agencies.</p>
<p><b>Objective 5c1.a:</b>  By 2011 The District will complete all the Board approved Technology Bond Funded Projects to upgrade the District infrastructure.</p>
<p><b>Year 1 Benchmark:</b>  Complete 50% of the tasks associated with the Board approved Technology Bond Funded Projects to upgrade the District infrastructure.</p>
<p><b>Year 2 Benchmark:</b>  Complete 75% of the tasks associated with the Board approved Technology Bond</p>

Funded Projects to upgrade the District infrastructure.

**Year 3 Benchmark:**

Complete 100% of the tasks associated with the Board approved Technology Bond Funded Projects to upgrade the District infrastructure.

**Implementation Plan**

<b>Activities</b>	<b>Timeline</b> <sup>9</sup>	<b>Person(s) Responsible</b>	<b>Monitoring &amp; Evaluation</b>
Complete the implementation plans for the Technology Bond Funded Projects	Completed	Associate Sup. Operations	Plans published
Establish and maintain a status report on the Technology Bond Funded Projects and implementation of recommendations from the 2006 Assessment Report/	Completed Review bi-annually	Associate Sup. Operations	Reports prepared for Superintendent
Deploy the SAN – Wide Area network storage solutions (including VM Ware, Sharepoint)	June 2010	Associate Sup. Operations	Migration to new systems complete
Deploy the SAN – Wide Area network storage solutions (including SASI hardware and backup equipment upgrade)	Completed	Associate Sup. Operations	Equipment deployed (Work orders)
Deploy Subfinder, the District online application for substitute teachers	June 2010	Associate Sup. Operations	System activated System reports
Migrate to Microsoft 2003 to replace GroupWise	June 2009	Associate Sup. Operations	System activated
Deploy the VOIP servers to support the new phone system	June 2011	Associate Sup. Operations	Servers deployed (work orders)
Complete the BiTech upgrade of the financial, HR and payroll applications	June 2009	Associate Sup. Operations and Associate Sup. Business Services <sup>10</sup>	Systems activated
Implement the remaining recommendations from the 2006 Assessment Report			
<ul style="list-style-type: none"> <li>Implement and evaluate the data entry and management processes and calendar</li> </ul>	June 2009 Annually	Associate Sup. Operations and Associate	Reports to the Superintendent

<sup>9</sup> Since the Technology Bond Funded Projects are inter-related, the implementation plan includes some components that have already been completed.

<sup>10</sup> Sheri Gamba, Associate Superintendent for Business Services

recommended by the 2006 Assessment Report		Sup. Business	
<ul style="list-style-type: none"> <li>Automate Time and Attendance system</li> </ul>	June 2009	Associate Sup. Operations	System activated
<ul style="list-style-type: none"> <li>Develop POS for Food Services</li> </ul>	June 2009	Associate Sup. Operations	System activated
<ul style="list-style-type: none"> <li>Review Federal Reporting requirements compliance for EL and Special Ed</li> </ul>	June 2009	Deputy Superintendent and Associate Sup. Operations	Report to Superintendent
<ul style="list-style-type: none"> <li>Address environmental issues for the Main Computing Center</li> </ul>	June 2010	Associate Sup. Operations	Report to Superintendent

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

<b>Evaluation Instrument(s) &amp; Data To Be Collected</b>	<b>Frequency of Collection</b>	<b>Process to Monitor</b>
California Technology Survey	January – March Annually	Each quarter the Deputy Superintendent and Associate Superintendent of Operations 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 three 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 school technology 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 (Title I, SIP, Voluntary Integration, Bilingual), bond funds (Measures M and D), 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 measure 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 school technology plan.

Year 1 costs of implementing the plan reflect the 2007-08 budget to support both instructional and operational technology, including the network upgrades that are currently underway and will continue through 2008-09,

<b>Component</b>	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>	<b>Existing and Potential Funding Sources</b>
<b>Instructional Technology</b>				
<b>Curriculum</b>				
<i>Stipends for cadres Intervention Strategies Assessment Scanners Assistive Center Addition of Technology Integration Specialists for curriculum integration Content-based Electronic Resources for Preview</i>	\$100,000	\$150,000	\$150,000	Enhancing Education Through Technology (EETT) Title 1 Targeted Instruction Improvement Funds (TIIF) Special Education Grant funding
<b>Professional Development</b>				
<i>In-District Trainers Outside Trainers Stipends for Incentives</i>	\$200,000	\$200,000	\$175,000	Enhancing Education Through Technology (EETT) Title II Grant funding

<b>Component</b>	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>	<b>Existing and Potential Funding Sources</b>
<b>Technical Support</b>				
<i>Administrator, Technology (1FTE)</i> <i>Coordinator, Curriculum &amp; Technology Integration (1 FTE)</i> <i>Equipment Support Technicians (2 FTE)</i>	\$400,000	\$420,000	\$450,000	EETT Site Funds General Funds TIIF Title II Title I Grant Funding
<b>Electronic Resources –</b>				
<i>Software • Electronic Resources</i>	\$100,000	\$100,000	\$100,000	Textbook Instructional Media School site funds EETT Grant Funding
<b>Operational Technology</b>				
<b>Technology Staff</b> <i>(20 FTE)</i>	\$1,500,000	\$1,500,000	\$1,500,000	General Funds
<b>Infrastructure</b> <i>Gigaman Network, VOIP, Wiring, Router and Switch maintenance, CCCOE Internet Connection</i>	\$4,200,000	\$3,000,000	\$3,000,000	E-Rate, Bond, General Funds
<b>Hardware</b> <i>Instructional Computer Replacement Plan (5yr)</i> <i>Administrative Computer Replacement Plan (5yr)</i> <i>Other computers and printers from school budgets</i>	TBD	\$1,135,400 \$72,000 TBD	\$1,135,400 \$72,000 TBD	General Fund, Bond & Future Measures  Categorical SIP
<b>Software Licenses</b> <i>SASI, BI-Tech, Connect Ed, School Dude, Edusoft, Edgenuity, Read 180</i>	\$971,000	\$971,000	\$971,000	General Funds, EETT, Title I & II

Component	Year 1	Year 2	Year 3	Existing and Potential Funding Sources
<b>Contracted Services</b> <i>Infrastructure Support</i>	\$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:

1. The district will maintain a minimum ratio of students-to-instructional computer of 5:1, which is the current state standard.
2. The district will replace the instructional computers needed to maintain the target student-to-computer ratios on a five-year cycle.
3. All new computers will continue to be purchased with a three-year warranty that includes next day, on-site repair.
4. 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 will not be maintained by the district and will be declared surplus at the discretion of the site. 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. “Hardware” and Appendix A - Computer Replacement Plan)

**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 drafted a plan to eliminate obsolete, high-maintenance computers. (See “Plan for Obsolescent Equipment” below).
- **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.

At the beginning of the first year of the plan, the District Technology Advisory Committee, comprised of representatives from major departments/divisions, teachers, school site administrators, parents, business and community members, will be established. Throughout the three years of this plan, the committee will meet three

times a year 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 a Monitoring and Evaluation Subcommittee 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. Standardized test scores and Districtwide assessment results 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.**

<b>Evaluation Instrument(s) &amp; Data To Be Collected</b>	<b>Frequency of Collection</b>	<b>Process to Monitor</b>
Durable Goods Reports	Quarterly	Each year the Director of Technology will prepare an Annual Action Plan based on the three year Technology Plan and available funding. Each quarter the Director of
District Financial Expenditure Reports	Monthly	
Automated Management System reports	Ongoing	

Reports to the Superintendent	Quarterly	Technology Services will prepare progress reports and financial summaries on the implementation of the Action Plan for the Deputy Superintendent of Teaching and Learning and Associate Superintendent of Operations. They 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.
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**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 we 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. resumé 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 21<sup>st</sup> 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 (Sandholtz 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 the areas of aligning technology with the District’s “Five by 05” goals and reform efforts, 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.

**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

# Proposed Replacement Plan for Instructional Computers

### Recommendation:

1. The district will maintain a minimum ratio of students-to-instructional computer of 5:1, which is the current state standard.
2. The district will replace the instructional computers needed to maintain the target student-to-computer ratios on a five-year cycle.
3. All new computers will continue to be purchased with a three-year warranty that includes next day, on-site repair.
4. 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 will not be maintained by the district and will be declared surplus at the discretion of the site. 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.

**Background:** Schools and the district have made a significant investment over the past several years to give students and teachers access to the technology tools that support student achievement of high curriculum standards. As a result, the district has been able to deploy 7,464 Internet connected, instructional computers in classrooms, library/media centers and computer laboratories.

While there are significant variations in the student-to-computer ratios among schools, the district exceeds the state standards of 5:1. This investment has enabled the district to implement a range of electronic instructional applications to facilitate student achievement, to support teachers' efforts to meet individual student academic needs and to make record keeping and student assessment timely and efficient.

However, like all school districts in the state, the District acquired all these computers using Digital High School (DHS), Enhancing Education through Technology (EETT), and other one-time funding that had no provisions for replacement. Most federal and state funding for technology, such as DHS and EETT, have been eliminated or dramatically reduced.

In the absence of a stable funding stream for computers, schools and the district keep computers well beyond their useful life and are unable to plan for their future needs. As computers age, the costs of maintenance increase in terms of parts, technical support and down time. Teachers are less willing to develop lessons that integrate technology if the available computers are unreliable. The combination of obsolescent computers and

uneven access is a barrier to full implementation of the math, science and English language adoptions and other applications.

Most schools currently have student to computer ratios that are lower than the 5:1 state standard. Clearly, this policy would not resolve all school site technology needs or replace all existing computers, nor would it preclude individual schools from using site funds, grants or donations for additional computers. However, by adopting the computer replacement policy, the Board will provide baseline of support to ensure continued and equitable access to critical instructional tools, lower total costs of ownership and enable school sites to plan more effectively.

**Costs:** The plan estimates that the cost of the five-year replacement plan will be \$1,135,400 to replace 1,262 instructional computers per year if the computers were purchased with three year, next day on-site warranties. The district should compare the cost-benefits of leasing vs. purchasing the hardware.

Research indicates that the per computer maintenance costs will decline over time as a larger proportion of the computers are covered by warranty and aging, and unreliable computers are removed from the classroom.

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**West Contra Costa Unified School District - Education Technology Plan**

**Appendix A  
Technology Replacement Plan**

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	Number of computers	Enrollment	Current S:C Ratio	Baseline S:C Ratio	# of Computers needed to maintain target ratio	# Replaced annually - 4 yr. Cycle	# Replaced annually - 5 yr. Cycle	Unit Costs	Annual Costs - 4 Yr. Cycle	Annual Costs - 5 Yr. Cycle
Elementary	3362	15038	4.9	5:1	3007.6	752	602	\$900	\$676,710	\$541,368
Middle	1572	6853	3.3	5:1	1370.6	343	274	\$900	\$308,385	\$246,708
High	2530	9649	3.6	5:1	1929.8	482	386	\$900	\$434,205	\$347,364
<b>Total</b>	7464	31540	4.2	5:1	6308	1577	1262	\$900	\$1,419,300	\$1,135,440

## Appendix B – Projects Assistants – 2006 Environmental Assessment and Recommendations Report

This report is available upon request.

# Appendix C – Criteria for EETT Funded Technology Plans

In order to be approved, a technology plan needs to have “Adequately Addressed” each of the following criteria:

- For corresponding EETT Requirements, see the EETT Technology Plan Requirement (Appendix D).
- If the technology plan is revised, insert the Education Technology Plan Benchmark Review Form (Appendix I) in the technology plan.
- Include this form (Appendix C) with “Page in District Plan” completed at the end of your technology plan.

<b>1. PLAN DURATION CRITERION</b>			
	<b>Page in District Plan</b>	<b>Example of Adequately Addressed</b>	<b>Example of Not Adequately Addressed</b>
<i>The plan should guide the district's use of education technology for the next three to five years. (For new plan, can include technology plan development in the first year).</i>	<b>6</b> <b>7/1/08-6/30/11</b>	The technology plan describes the districts use of education technology for the next three to five years. (For new plan, description of technology plan development in the first year is acceptable). Specific start and end dates are recorded (7/1/xx to 6/30/xx).	The plan is less than three years or more than five years in length.  Plan duration is 2008-11.
<b>2. STAKEHOLDERS CRITERION</b>			
Corresponding EETT Requirement(s): 7 and 11 (Appendix D).			
	<b>Page in District Plan</b>	<b>Example of Adequately Addressed</b>	<b>Not Adequately Addressed</b>
<i>Description of how a variety of stakeholders from within the school district and the community-at-large participated in the planning process.</i>	<b>6</b>	The planning team consisted of representatives who will implement the plan. If a variety of stakeholders did not assist with the development of the plan, a description of why they were not involved is included.	Little evidence is included that shows that the district actively sought participation from a variety of stakeholders.

<b>3. CURRICULUM COMPONENT CRITERIA</b>			
Corresponding EETT Requirement(s): 1, 2, 3, 8, 10, and 12 (Appendix D).			
	<b>Page in Plan</b>	<b>Example of Adequately Addressed</b>	<b>Example of Not Adequately Addressed</b>
<b>a. Description of teachers' and students' current access to technology tools both during the school day and outside of school hours.</b>	<b>7-8</b>	The plan describes the technology access available in the classrooms, library/media centers, or labs for all students and teachers.	The plan explains technology access in terms of a student-to-computer ratio, but does not explain where access is available, who has access, and when various students and teachers can use the technology.

<b>b. Description of the district's current use of hardware and software to support teaching and learning.</b>	<b>8-10</b>	The plan describes the typical frequency and type of use (technology skills/information literacy/integrated into the curriculum).	The plan cites district policy regarding use of technology, but provides no information about its actual use.
<b>c. Summary of the district's curricular goals that are supported by this tech plan.</b>	<b>10-12</b>	The plan summarizes the district's curricular goals that are supported by the plan and referenced in district document(s).	The plan does not summarize district curricular goals.
<b>d. 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.</b>	<b>13-17</b>	The plan delineates clear goals, measurable objectives, annual benchmarks, and a clear implementation plan for using technology to support the district's curriculum goals and academic content standards to improve learning.	The plan suggests how technology will be used, but is not specific enough to know what action needs to be taken to accomplish the goals.
<b>e. List of clear goals, measurable objectives, annual benchmarks, and an implementation plan detailing how and when students will acquire the technology skills and information literacy skills needed to succeed in the classroom and the workplace.</b>	<b>18-19</b>	The plan delineates clear goal(s), measurable objective(s), annual benchmarks, and an implementation plan detailing how and when students will acquire technology skills and information literacy skills.	The plan suggests how students will acquire technology skills, but is not specific enough to determine what action needs to be taken to accomplish the goals.

	<b>Page in Plan</b>	<b>Example of Adequately Addressed</b>	<b>Example of Not Adequately Addressed</b>
<b>f. List of goals and an implementation plan that describe how the district will address the appropriate and ethical use of information technology in the classroom so that students can distinguish lawful from unlawful uses of copyrighted works, including the following topics: the concept and purpose of both copyright and fair use; distinguishing lawful from unlawful downloading and peer-</b>	<b>20</b>	<b>The plan describes or delineates clear goals outlining how students will learn about the concept, purpose, and significance of the ethical use of information technology including copyright, fair use, plagiarism and the implications of illegal file sharing and/or downloading (as stated in AB 307).</b>	The plan suggests that students will be educated in the ethical use of the Internet, but is not specific enough to determine what actions will be taken to accomplish the goals.

<p>to-peer file sharing; and avoiding plagiarism (AB 307: Optional in 2007-08, required July 1, 2008).</p>			
<p>g. List of goals and an implementation plan that describe how the district will address Internet safety, including how to protect online privacy and avoid online predators. (AB 307: Optional in 2007-08, required July 1, 2008)</p>	<p>21</p>	<p>The plan describes or delineates clear goals outlining how students will be educated about Internet safety (as stated in AB 307).</p>	<p>The plan suggests Internet safety education but is not specific enough to determine what actions will be taken to accomplish the goals.</p>
<p>h. Description of or goals about the district policy or practices that ensure equitable technology access for all students.</p>	<p>21-23</p>	<p>The plan describes the policy or delineates clear goals and measurable objectives about the policy or practices that ensure equitable technology access for all students. The policy or practices clearly support accomplishing the plan's goals.</p>	<p>The plan does not describe policies or goals that result in equitable technology access for all students.</p>
<p>i. List of clear goals, measurable objectives, annual benchmarks, and an implementation plan to use technology to make student record keeping and assessment more efficient and supportive of teachers' efforts to meet individual student academic needs.</p>	<p>23-24</p>	<p>The plan delineates clear goal(s), measurable objective(s), annual benchmarks, and an implementation plan for using technology to support the district's student record-keeping and assessment efforts.</p>	<p>The plan suggests how technology will be used, but is not specific enough to know what action needs to be taken to accomplish the goals.</p>
<p>j. List of clear goals, measurable objectives, annual benchmarks, and an implementation plan to use technology to improve two-way communication between home and school.</p>	<p>24-25</p>	<p>The plan delineates clear goal(s), measurable objective(s), annual benchmarks, and an implementation plan for using technology to improve two-way communication between home and school.</p>	<p>The plan suggests how technology will be used, but is not specific enough to know what action needs to be taken to accomplish the goals.</p>
<p>k. Describe the process that will be used to monitor the Curricular Component (Section 3d-3j) goals, objectives, benchmarks and planned implementation activities including roles and responsibilities.</p>	<p>25-28</p>	<p>The monitoring process, roles, and responsibilities are described in sufficient detail.</p>	<p>The monitoring process either is absent, or lacks detail regarding procedures, roles, and responsibilities.</p>

<b>4. PROFESSIONAL DEVELOPMENT COMPONENT CRITERIA</b> Corresponding EETT Requirement(s): 5 and 12 (Appendix D).			
	<b>Page in District Plan</b>	<b>Example of Adequately Addressed</b>	<b>Example of Not Adequately Addressed</b>
<b>a. Summary of the teachers' and administrators' current technology proficiency and integration skills and needs for professional development.</b>	<b>28-29</b>	The plan provides a clear summary of the teachers' and administrators' current technology proficiency and integration skills and needs for professional development. The findings are summarized in the plan by discrete skills that include CTC Standard 9 and 16 proficiencies.	Description of current level of staff expertise is too general or relates only to a limited segment of the district's teachers and administrators in the focus areas or does not relate to the focus areas, i.e., only the fourth grade teachers when grades four to eight are the focus grade levels.
<b>b. List of clear goals, measurable objectives, annual benchmarks, and an implementation plan for providing professional development opportunities based on district needs assessment data (4a) and the Curriculum Component objectives (sections 3d through 3j) of the plan.</b>	<b>29-31</b>	The plan delineates clear goal(s), measurable objective(s), annual benchmarks, and an implementation plan for providing teachers and administrators with sustained, ongoing professional development necessary to reach the Curriculum Component objectives (sections 3d through 3j) of the plan.	The plan speaks only generally of professional development and is not specific enough to ensure that teachers and administrators will have the necessary training to implement the Curriculum Component.
<b>c. Describe the process that will be used to monitor the Professional Development (Section 4b) goals, objectives, benchmarks and planned implementation activities including roles and responsibilities.</b>	<b>32</b>	The monitoring process, roles, and responsibilities are described in sufficient detail.	The monitoring process either is absent, or lacks detail regarding who is responsible and what is expected.
<b>5. INFRASTRUCTURE, HARDWARE, TECHNICAL SUPPORT, AND SOFTWARE COMPONENT CRITERIA</b> Corresponding EETT Requirement(s): 6 and 12 (Appendix D).			
	<b>Page in District Plan</b>	<b>Example of Adequately Addressed</b>	<b>Example of Not Adequately Addressed</b>
<b>a. Describe the existing hardware, Internet access, electronic learning resources, and technical</b>	<b>33-35</b>	The plan clearly summarizes the existing technology hardware, electronic learning resources, networking and	The inventory of equipment is so general that it is difficult to determine

<p><b>support already in the district that will be used to support the Curriculum and Professional Development Components (sections 3 &amp; 4) of the plan.</b></p>		<p>telecommunication infrastructure, and technical support to support the implementation of the Curriculum and Professional Development Components.</p>	<p>what must be acquired to implement the Curriculum and Professional Development Components. The summary of current technical support is missing or lacks sufficient detail.</p>
<p><b>b. Describe the technology hardware, electronic learning resources, networking and telecommunications infrastructure, physical plant modifications, and technical support needed by the district’s teachers, students, and administrators to support the activities in the Curriculum and Professional Development Components of the plan.</b></p>	<p><b>35-38</b></p>	<p>The plan provides a clear summary and list of the technology hardware, electronic learning resources, networking and telecommunications infrastructure, physical plant modifications, and technical support the district will need to support the implementation of the district’s Curriculum and Professional Development Components.</p>	<p>The plan includes a description or list of hardware, infrastructure, and other technology necessary to implement the plan, but there doesn’t seem to be any real relationship between the activities in the Curriculum and Professional Development Components and the listed equipment. Future technical support needs have not been addressed or do not relate to the needs of the Curriculum and Professional Development Components.</p>
<p><b>c. List of clear annual benchmarks for obtaining the hardware, infrastructure, learning resources and technical support required to support the other plan components as identified in section 5b.</b></p>	<p><b>38-42</b></p>	<p>The annual benchmarks are specific and realistic. Teachers and administrators implementing the plan can easily discern what needs to be acquired or repurposed, by whom, and when.</p>	<p>The annual benchmarks are either absent or so vague that it would be difficult to determine what needs to be acquired or repurposed, by whom, and when.</p>
<p><b>d. Describe the process that will be used to monitor the annual benchmarks including roles and responsibilities.</b></p>	<p><b>42</b></p>	<p>The monitoring process, roles, and responsibilities are described in sufficient detail.</p>	<p>The monitoring process either is absent, or lacks detail regarding who is responsible and what is expected.</p>

<b>6. FUNDING AND BUDGET COMPONENT CRITERIA</b> Corresponding EETT Requirement(s): 7 & 13, (Appendix D).			
	<b>Page in District Plan</b>	<b>Example of Adequately Addressed</b>	<b>Example of Not Adequately Addressed</b>
a. <b>List established and potential funding sources.</b>	<b>42</b>	The plan clearly describes resources that are available or could be obtained to implement the plan.	Resources to implement the plan are not clearly identified.
b. <b>Estimate annual implementation costs for the term of the plan.</b>	<b>43-45</b>	Cost estimates are reasonable and address the total cost of ownership, including the costs to implement the curricular, professional development, infrastructure, hardware, technical support, and electronic learning resource needs identified in the plan.	Cost estimates are unrealistic, lacking, or are not sufficiently detailed to determine if the total cost of ownership is addressed.
c. <b>Describe the district's replacement policy for obsolete equipment.</b>	<b>45</b>	Plan recognizes that equipment will need to be replaced and outlines a realistic replacement plan that will support the Curriculum and Professional Development Components.	Replacement policy is either missing or vague. It is not clear that the replacement policy could be implemented.
d. <b>Describe the process that will be used to monitor Ed Tech funding, implementation costs and new funding opportunities and to adjust budgets as necessary.</b>	<b>45-46</b>	The monitoring process, roles, and responsibilities are described in sufficient detail.	The monitoring process either is absent, or lacks detail regarding who is responsible and what is expected.

<b>7. MONITORING AND EVALUATION COMPONENT CRITERIA</b> Corresponding EETT Requirement(s): 11 (Appendix D).			
	<b>Page in District Plan</b>	<b>Example of Adequately Addressed</b>	<b>Example of Not Adequately Addressed</b>
<b>a. Describe the process for evaluating the plan's overall progress and impact on teaching and learning.</b>	<b>46-47</b>	The plan describes the process for evaluation using the goals and benchmarks of each component as the indicators of success.	No provision for an evaluation is included in the plan. How success is determined is not defined. The evaluation is defined, but the process to conduct the evaluation is missing.
<b>b. Schedule for evaluating the effect of plan implementation.</b>	<b>47</b>	Evaluation timeline is specific and realistic.	The evaluation timeline is not included or indicates an expectation of unrealistic results that does not support the continued implementation of the plan.
<b>c. Describe the process and frequency of communicating evaluation results to tech plan stakeholders.</b>	<b>47-48</b>	The plan describes the process and frequency of communicating evaluation results to tech plan stakeholders.	The plan does not provide a process for using the monitoring and evaluation results to improve the plan and/or disseminate the findings.

<b>8. EFFECTIVE COLLABORATIVE STRATEGIES WITH ADULT LITERACY PROVIDERS TO MAXIMIZE THE USE OF TECHNOLOGY CRITERION</b> Corresponding EETT Requirement(s): 11 (Appendix D).			
	<b>Page in District Plan</b>	<b>Example of Adequately Addressed</b>	<b>Example of Not Adequately Addressed</b>
<b>a. If the district has identified adult literacy providers, describe how the program will be developed in collaboration with them. (If no adult literacy providers are indicated, describe the process used to identify adult literacy providers or potential future outreach efforts.)</b>	<b>48-49</b>	The plan explains how the program will be developed in collaboration with adult literacy providers. Planning included or will include consideration of collaborative strategies and other funding resources to maximize the use of technology. If no adult literacy providers are indicated, the plan describes the process used to identify adult literacy providers or potential future outreach efforts.	There is no evidence that the plan has been, or will be developed in collaboration with adult literacy service providers, to maximize the use of technology.

<b>9. EFFECTIVE, RESEARCHED-BASED METHODS, STRATEGIES, AND CRITERIA</b> Corresponding EETT Requirement(s): 4 and 9 (Appendix D).			
	<b>Page in District Plan</b>	<b>Example of Adequately Addressed</b>	<b>Not Adequately Addressed</b>
<b>a. Summarize the relevant research and describe how it supports the plan's curricular and professional development goals.</b>	<b>49-51</b>	The plan describes the relevant research behind the plan's design for strategies and/or methods selected.	The description of the research behind the plan's design for strategies and/or methods selected is unclear or missing.
<b>b. 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.</b>	<b>51</b>	The plan describes the process the district will use to extend or supplement the district's curriculum with rigorous academic courses and curricula, including distance learning opportunities (particularly in areas that would not otherwise have access to such courses or curricula due to geographical distances or insufficient resources).	There is no plan to use technology to extend or supplement the district's curriculum offerings.