

Cajon Valley Union School District

**COMPREHENSIVE
EDUCATIONAL TECHNOLOGY
3-YEAR PLAN**

2014 - 2017



Dr. David Miyashiro, Superintendent
750 E. Main St
El Cajon, CA 92020
619-588-3000

Table of Contents

SECTION 1-PLAN DURATION	4
1a. Duration.....	4
SECTION 2-STAKEHOLDERS	5
2a. Technology Plan Committee Support	5
SECTION 3-CURRICULUM	7
3a. Teachers and Students’ Current Access to Technology Tools	7
3b. District’s current use of hardware and software to support teaching and learning	8
3c. District’s Curriculum Goals and Academic Content, and Planning Document	15
3d. Use of Technology to Improve Teaching and Learning	17
3e. How Students will Acquire Technology Skills.....	19
3f. Appropriate and Ethical Use of Information Technology in the Classroom	20
3g. Goals and Activities to Address Internet Safety.....	21
3h. Goals and Activities to Ensure Appropriate Access to all Students	22
3i. Plan to Utilize Technology to Make Student Record Keeping and Assessment More Efficient and Supportive of Teachers’ Efforts to Meet Individual Student Academic Needs.	24
3j. Two-Way Communication between Home and School.....	26
3k. Monitoring and Evaluation of Technology Plan	28
SECTION 4-PROFESSIONAL DEVELOPMENT	29
4a. Summary of the teachers’ and administrators’ current technology proficiency and integration skills and needs for professional development	29
4b. Goals and implementation plan for providing professional development opportunities based on the districts needs assessment data and the Curriculum component objectives of the plan	36
4c. Monitoring the Professional Development goals, objectives, benchmarks, and planned implementation activities including roles and responsibilities.....	40
SECTION 5 -INFRASTRUCTURE, HARDWARE, TECHNICAL SUPPORT, AND SOFTWARE COMPONENT CRITERIA	41
5a. Existing Hardware, Electronic Learning Resources, and Technical Support	41
5b. Hardware, Networking/Telecommunications, and Technical Support Needed for Implementation of the Plan	46
5c. Benchmarks and Timeline for Obtaining Hardware, Learning Resources and Technical Support.....	48
5d. Monitor Process, Benchmarks, and Timelines for 5b	50
SECTION 6-FUNDING AND BUDGET	52
6a. Established and Potential Funding Sources for Present and Future.....	52
6b. Estimated Implementation Costs for each Year of the Plan	53
6c. District Replacement Policy for Obsolete Equipment	56
6d. Monitoring Progress, Update Funding and Budget Forecast.....	56
SECTION 7-MONITORING AND EVALUATION	57
7a. Process for Evaluating Plan Progress and Impact of Technology on Teaching and Learning.....	57
7b. Schedule of Evaluation to Measure Effectiveness of Plan Implementation	57
7c. Reporting and Using Results to Revise the Plan Annually	59
SECTION 8-COLLABORATIVE STRATEGIES WITH ADULT LITERACY PROVIDERS	60
8a. Adult Literacy Providers Plans to Maximize the Use of Technology	60
SECTION 9- Effective Research- Based Methods and Strategies	61

9a. Research and Curriculum/Professional Development Goals	61
9b. Development and Utilization of Innovative Strategies for using Technology to Deliver Rigorous Academic Courses and Curricula, Including Distance Learning Technologies	67
Appendix C – Criteria for EETT Funded Technology Plans	68
Appendix I – Technology Plan Contact Information	78

SECTION 1-PLAN DURATION

1a. Duration

This comprehensive educational technology plan of the Cajon Valley Union School District covers a three-year period from July 1, 2014 through June 30, 2017. The plan contains the required goals, objectives, benchmarks, and timelines that cover all the three years in the plan and address the thirty required criteria for state approval.

The following are Cajon Valley Union School District contacts:

1. Dr. Carmen Restrepo, Coordinator of Educational Technology
750 E. Main St., P.O. Box 1007 El Cajon, CA 92022-1007
Phone: (619) 588-3278, Fax: 619-579-4800
E-Mail: Restrepo@cajonvalley.net
2. Jonathon Guertin, Chief Technology Office
750 E. Main St., P.O. Box 1007 El Cajon, CA 92022-1007
Phone: (619) 588-5868, Fax: 619-579-4888
E-Mail: Guertinj@cajonvalley.net
3. Mr. Charles Allen, Director of Information Technology Services
750 E. Main St., P.O. Box 1007 El Cajon, CA 92022-1007
Phone: (619) 441-6104, Fax: 619-579-4888
E-Mail: allen@cajonvalley.net
4. Kari Hull, Assistant Superintendent of Educational Services
750 E. Main St., P.O. Box 1007 El Cajon, CA 92022-1007
Phone: 619-588-3086, FAX: 619-579-4800
E-mail: hullk@cajonvalley.net

SECTION 2-STAKEHOLDERS

2a. Technology Plan Committee Support

The District created a planning group to direct the visioning and input from all sites in the fall of 2013. This group reviewed the 2011-2014 Technology Plan and scanned the data collected to determine the successes over the past 3 years and discussed future steps for the next three years. Input was taken from District administration, Site Lead Technology Teachers, Principals, teacher representatives, community members and students via the 2013-2017 CVUSD Technology Plan Committee. The planning committee met three times as a group prior to submission of the 2014-2017 plan. To build context committee members reviewed the 2010 National Technology Plan, the 2013 Horizon Report, and the 2011 Framework for 21st Century Learning, and results from the 2013 Teacher Technology Skills Proficiency Survey. Members also provided input on what had been accomplished from the 2011-2014 plan and what was still in process, as well as, reviewed the Cajon Valley Union School District Vision, Mission, Core Values and 2013 Strategic Plan. Members then discussed an ideal plan for what classrooms, infrastructure, hardware, software and personnel should include over the next three years and prioritized those elements in order to establish the 2014-2017 Technology Plan goals and objectives.

Members of the 2013-2017 Technology Plan Committee

Name	Title	Group Represented
Carmen Restrepo	Coordinator of Educational Technology	Educational Services Department
Jonathon Guertin	Chief Technology Office	Information Technology Department
Kristen Goodrich	Coordinator	Educational Services Department
Linda Roach	Coordinator	Educational Services Department
Charles Allen	Director of Information Technology	Information Technology Services Department
Barbara Cirar	Lead Computer Network Technician (CNT)	Information Technology Services Department
Karen Minshew	Principal	Greenfield Middle School
Kirk Hoeban	Principal	Bostonia Elementary
Keith Himaka	Principal	Blossom Valley Elementary
Ginny Pinkerton	Principal	Sevick School
Kelly Bates	Area Coordinator	Special Education Department
Leslie Gritz-Zitren	Teacher	Vista Grande Elementary
Rosa Ramos	Teacher	Naranca Elementary
Guillermo Gomez	Teacher	Community Day School
Tim Dobbins	Teacher	Montgomery Middle School
Ruth Maas	Teacher	Cajon Valley Middle School
Ann Mason	Teacher	Los Coches Creek Middle
Beverly Brushaber	Community Member	Community
James Beard	Director	Maintenance Operations
Sharon Clay	Manager	Purchasing/Warehouse

The goals, objectives and activities developed by the Technology Plan Committee have been shared with the Site Lead Technology teachers, District administrative staff, representatives from classified and certificated Associations and parent groups.

Selected members of the Technology Plan Committee will be invited to serve on the District Technology Plan Sub-Committee that will meet annually to oversee the implementation of the 2014-2017 District Technology Plan. The committee objectives include:

- Receiving yearly reports from departments and school site leads on progress towards meeting district technology goals.
- Monitoring implementation and evaluate progress toward meeting the yearly objectives.
- Identification of areas of focus and concerns based on the monitoring report and recommending a plan of action to remedy “roadblocks.”
- Yearly review of Acceptable Use Policies and Code of Conduct related to Educational Technology.
- Provide Recommendations of District Technology Standards with both Hardware and Software implementations.
- Provide input towards Educational Technology purchases made with Bond Expenditures.

SECTION 3-CURRICULUM

3a. Teachers and Students' Current Access to Technology Tools

There are 27 school sites in the district including 20 elementary schools, 6 middle schools, 1 alternative school, 1 home school, and 1 pre-school. All administrators, teachers, and instructional support personnel have email accounts. The district classroom standard includes a teacher computer, projector and a docu-cam in all of our classrooms. Most teachers opt for a laptop for their teacher computer with the intent of expanding their access to these tools from home. The overall student to computer ratio district-wide is 1 computer for every 2 students. Presently 3,226 desktops and 3,429 laptops serve the District's 16,027 students. A Computer lab(s) and/or laptop rolling cart(s) are in place at most of our elementary sites and available at all of our middle schools. In addition to supporting classroom instruction, these labs and carts also provide an extremely valuable service for individualized student assessment and intervention programs. We also now currently have 7,485 mobile devices (iPod Touches, iPads, Chromebooks and Nexus Tablets) that have been introduced into more than 600 classrooms across our 28 school sites. These mobile devices also provide Internet access to resources and curriculum content.

Currently, CVUSD students including Special Education, Gifted and Talented (GATE), English Learners (EL), and low socio-economic (SES) have appropriate access to technology in their classrooms, libraries, and/or school computer labs. At many of our sites, technology is available to students before, after school, and during breaks. Several schools offer parent nights to introduce parents to the applications and strategies children use in their academic programs. Federal grant funds are providing additional technology access to students, teachers, and student teachers at selected sites. One of our goals is to ensure that each classroom has an adequate number of current technology tools readily available to enhance and inform instruction.

All school libraries in CVUSD have Internet access and a set of computers for students and teachers to access before, during, and after school during the days of the week that they are open. Students use the library/media centers, as well as classroom computers, to take reading assessments from programs such as Accelerated Reader, Reading Counts, and Raz Kids. They use library/media center computers for library work, research, and other content-based projects.

Cajon Valley has district domains for both Google Apps for Education and Edmodo. Many teachers and students use both programs to curate information, create content presentations, communicate, collaborate, and take a variety of formative and summative assessments.

The Zangle Portal and Student Connect system is available to all parents and students for accessing their students' attendance, grades, test scores, and assignments. District website at www.cajonvalley.net also provides a wide range of useful information and resources. Parents and staff also benefit from the Blackboard Connect student and staff calling system to receive absence notices and district, school, and emergency information via their home telephone, cell phone, or via e-mail. Schools also provide site-specific information on their own school website including an "opt-in" system that will send out periodic messages electronically.

Community access exists through specific school site and district programs as well as through all community libraries that Cajon Valley Union School District Serves.

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

Elementary Schools:

Implementations of Educational Technology Skills are introduced and monitored based on ISTE National Educational Technology Standards for Students (NETS). In primary grades (K-3) students are introduced to basic computer skills including all the essential parts of the computer and keyboard. They are taught how to log on, navigate, save and launch applications. They also learn the basics of OSX and Google Apps for Education, creating documents and folders, sharing options and setting permissions, printing, and navigation. Many use Microsoft Office and Google Apps for Education software to graphically present academic content and publish with a variety of presentation tools. By using word processing software, students will gain basic technology skills like the use of a mouse, keyboard, printer, and various applications and their uses. The most important aspect of integrating technology for primary students is their engagement in writing, revising, reading and sharing their own content.

The use of presentation software such as PowerPoint, StoryKit, Animoto, iMovie, or other slide show programs adds verbal communication into the writing process. Primary students are now able to make engaging presentations for their peers. Students enjoy taking center stage and either reading, or explaining their process of creation for their presentation. Students who are shy about speaking out in front of the classroom are more than willing to read their content into the microphone on their computers.

In the intermediate grades (grade 4-6) students are provided more in depth experiences in word processing key boarding, presentations and Internet research. Student's presentations in Word, PowerPoint, Google, Prezi, Slideshare and other Web 2.0 tools now contain images or video clips that have been properly cited back to the original source. Internet research skills are taught with an emphasis on filtering through the data to decipher what is accurate and appropriate. Students learn to use researched material to write their own original content instead of simply using "copy paste" to write a report. The intermediate students learn the concept of a network and accessibility of their setup throughout the school as well as ethics training on Internet searching. They also learn to save their work by using flash-drives and cloud storage.

Intermediate students use instructional software including databases where students collect data (using the data collection tools), enter it into a spreadsheet, and then create charts and graphs to analyze the data.

Middle Schools

Grade 6-8 students in Cajon Valley's six Middle Schools develop the following technology skills, and use the listed applications and hardware.

Word Processing Software (Pages, Word, Google Apps for Education)

Students learn how to create and save new documents, and how to locate and edit existing documents. They also learn how to change fonts, font styles and sizes, check spelling, change paragraph alignment (left, center or right aligned), and how to add bulleted or numbered line items.

Presentation Software (Keynote, PowerPoint, Google Apps,)

Students develop a fundamental knowledge of creating and editing slides, reordering slides, performing word processing-like tasks to import content, and add images to slides. In addition, students learn the concept of a presentation of slides in a slide show, including how to animate transitions between slides, add transitions between line items in a slide, and how to add sound effects to transitions.

Spreadsheet software (Numbers, Excel, Google Apps)

Students learn the association between rows and columns in a spreadsheet and the X and Y-axes of a graph. They also learn the association between cells in a slide and points on a line graph, or bars in a histogram. Students learn how to collect data, input the data points into cells of a spreadsheet, and to invoke a graph wizard to generate different types of graphs from the spreadsheet data.

Information Organization Software (Google draw, Popplet, SimpleMind)

Students learn the basics of associating ideas and concepts to objects in a graph or map, and how to generate basic concept maps. Students also learn how to organize ideas into categories, subcategories and concepts, and how to use edges and directional edges to display associations between categories, subcategories and concepts.

Web Surfing Software (Safari, Firefox, Chrome)

Students learn about how their lab and classroom computers are hooked up to large school 'server' computers, which are connected to other 'server' computers and how these hooked up small and large computers to make up the Internet. They learn that web pages can reside on these large server computers, and that they can browse these pages with software like Explorer and Safari. They develop an understanding of how pages get connected together via *hyperlinks*. In addition, students learn that certain web sites called 'search engines' like Google, KidsSearch and Ask Jeeves for Kids can help them locate information that they can use to do research for class assignments and homework.

Web Page Editing Software (Google Site, KidBlog, EduBlog, Glogster)

Students learn how to use a WYSIWYG web page building application. They also learn how to locate and download images from the web, and how to link those images to their web pages. Students also learn how to make their own hyper links to web pages out in the Internet, and make hyperlinks to other pages that they build. They develop a very basic understanding of how to upload their pages to a large 'web server' computer so that other computers on the Internet can see the pages that they've built.

Hardware-Laptops/Wireless/ Peripherals

Students develop a basic understanding of how wireless technology works (i.e., communication between a base station and laptop, base station with a wired connection to the Internet.) as well as an understanding of battery power dissipating when not plugged in, and recharging when plugged back into it station connection. Students also develop a basic understanding that computers can connect to devices like printers, scanners, LCD projectors and flash drives.

Middle School Technology Arts

The Technology Arts program provides students with the opportunity to work on a variety of different project based curriculum applications (modules) that use both computer technology and hands on materials to engage and teach students in a cooperative setting. Supported by the module framework, students complete activities in areas that are directly correlated to the California Educational Standards with a focus in the areas of math and science. Modules topics include Audio Broadcasting, Lights and Lasers, Electricity, Electronics, Computer Graphics and Animation, Body Systems, Fitness and Health, Careers, Personal Finance, Video Production, Podcasting and several others. An overarching goal of the program is for students to leave as more responsible learners. Within the curriculum, the locus of control rests with the students. They are given responsibility for their learning - within the safety of the module workstation – and are given all the tools necessary for success. The entire system is built to empower students to take ownership of their learning. Along with being student directed, the curriculum is created to facilitate cooperative learning. Modules are designed to be completed by two students working together. We also have complimentary programs where students learn animation and Computer Aided Drafting (CAD) programs.

Video Streaming (All Grades)

Discovery Education is a video-on-demand service scientifically proven to increase student achievement. Teachers and students have access to over 4,000 videos (40,000 clips) that are correlated to the California Content Standards. Features are designed to enhance usability and enable efficient and effective classroom integration. Teachers also incorporate videos from Teacher Tube, Khan Academy, Math Train, Defined STEM and Brain Pop. Teachers project the videos via LCD projectors or a cable and adaptor connection to the classroom TV.

School Broadcasts (All Grades)

In several of our schools school wide broadcast equipment has been purchased and daily broadcasts are made from school broadcast studios. Teachers, students, parents and administrators collaborate on planning and presenting the daily broadcasts served to each classroom in the school, which include school news, and upcoming events as well as highlight student achievements.

Mobile and Handheld Devices

In many of our sites mobile devices have been purchased to augment the access to online resources and sites. This includes applications that are content specific that provide an alternate way to access the core subjects through multimedia rich formats. Furthermore, the great number of free and/or low cost applications available for mobile devices has provided teachers the ability to specifically address areas of deficiencies within the curriculum. Mobile devices are used as response clickers at both our elementary and middle school sites. Immediate response tools provide teachers a quick and effective way to check for understanding during the course of their instruction. It also provides the benefit of engaging all students in a non-threatening way.

Teacher's Use of Technology

Teachers use technology to both enhance their instruction practice as well as to guide and inform their instruction. They use Zangle and OARS (Online Assessment Reporting System) to document student academic progress, design instruction, develop assessments, review student assessment data, and communicate with parents regarding student progress in school. All teachers, administrators, support staff have access to Office365 email as their default communication tool at the site and district level.

Teachers use online resources that are appropriate to the subject matter to further developing student understanding. Technology resources are used to make subject matter accessible to students. Teachers often use online lesson plans to enhance their regular instruction, or to re-teach those skills identified as needing more emphasis. Some teachers also participate in online discussion groups for professional collaboration on new instructional strategies and to share model lessons.

Teachers also use online technology tools in their daily instructional practice. Teachers build background knowledge through the use of video streaming. PowerPoint presentations and Discovery Education videos can be used to bring regalia into the classroom. Creating virtual field trips for students helps to build background knowledge and experiences. Students can't all fly to Pompeii to see the aftermath of the volcano, but can take a virtual field trip to see for example; the devastation caused by a volcano, and thus acquires an enhanced understanding of the true power of a volcano.

Technology is utilized with a number of intervention programs throughout the district. The focus is on students that need additional assistance in English Language Arts, Mathematics, and or English Language Development. The strength of these intervention programs are their ability to individualize the content based on the needs of the student, increase engagement, and the in-depth reporting systems that provide critical information for our teachers. Some of these programs include Read 180, Imagine Learning, Carnegie Math, SuccessMaker, Achieve3000, and ALEKS Math, and Achieve3000. In addition, teachers are also using software suites such as Microsoft Office Suite, Google Apps for Education, Inspiration/Kidspiration, Study Island, and other CLRN programs to enhance their instruction.

The district and school sites also use mass notification systems (Blackboard Connect) to keep the community informed of ongoing events in our school district. This system is also part of our attendance system where the program sends out automatic calls to students that were absent. Our mass notification system is also part of our emergency response plan.

On the next page you will find results taken from our District Use of Technology Survey given to our teachers in the spring of 2014. The results below give insight to the current technology needs to support teaching and learning.

Table 1: Questions from District Use of Technology Survey (2014)

On a scale of 1-10 (1 being lowest and 10 being highest) how would you rate your skills on the following items	Response Count	Response Average
Using technology in your instruction.	164	6.55
Using technology for grading assignments/papers.	162	5.49
Finding new ideas for tech use in the classroom.	163	6.48
Using technology at home.	164	7.86
Using technology for fun.	164	7.58
Using social media.	163	6.57
Helping students use technology.	160	6.53
Helping other teachers use technology	163	6.21
As a teacher I feel prepared to...		
use technology in my instruction.	162	5.15
adopt a 21st century learning environment in my classroom.	159	5.16
share my technology best practices with other teachers.	161	4.91
teach my students about digital citizenship.	161	5.52
talk to parents about digital citizenship.	166	5.23
In order to use technology more in my instruction, I need...		
more professional development/training.	160	6.15
more support from school administrators.	160	5.19
more support from district technology personnel.	160	5.76
to completely change the way I have always taught.	160	4.41
a redesign of my classroom.	160	4.79
I regularly use technology...		
in my instruction.	159	5.41
to grade assignments.	159	3.86
to manage student grades.	159	4.88
to fill out report cards.	160	6.43
to communicate with parents.	160	5.35
When I need help with using technology in my classroom I get help from...		
district tech personnel.	160	3.83
my school site administrators.	159	3.56
other teachers at my school.	159	5.72
online resources such as YouTube videos, blogs, etc.	160	4.99
my students.	161	3.91
professional development consultants.	160	3.45

My school site administrators...		
have clearly communicated the vision for technology use.	161	5.06
foster innovative instructional practice.	160	5.01
support teacher use of technology in the classroom.	161	5.71
support student use of technology in the classroom.	160	5.61
help me to get the training/PD I need for using technology in my instruction.	160	4.47
model the use of technology in meetings, workshops, etc	161	4.86
Technology integration at my school site will be challenged by...		
lack of funding/finances.	161	5.63
lack of tech devices.	159	5.84
lack of teacher buy-in.	158	3.91
lack of tech support.	160	5.44
lack of professional development.	161	5.27
old and outdated tech devices.	160	5.73
priorities of school administrators.	159	3.54
physical space design of classrooms.	161	4.34
restrictions to web access.	159	4.03
student mis-use of online resources.	159	3.01
student mis-use of tech devices.	160	4.11
student & parent demographics.	160	4.43
unreliable Internet connectivity.	161	5.05
What types of technologies...	Response Items	Response Count
are available to you in your classroom?	Desktops	81
	Laptops/Netbooks	95
	Tablets/eReaders	45
	Smart Devices	40
	Digital Projectors	124
	Document Cameras	144
	Smart Boards	3
do you use in your classroom?	Desktops	69
	Laptops/Netbooks	103
	Tablets/eReaders	34
	Smart Devices	37
	Digital Projectors	121
	Document Cameras	134
	Smart Boards	0
would you like to see more of at your school site?	Desktops	48
	Laptops/Netbooks	118
	Tablets/eReaders	93
	Smart Devices	60
	Digital Projectors	35
	Document Cameras	32
	Smart Boards	83

6

What types of resources		
are available to you in your classroom?	LMS Software Programs Educational Games Apps Online Courses Website/Blogs	16 61 83 53 15 66
do you use in your classroom?	LMS Software Programs Educational Games Apps Online Courses Website/Blogs	11 60 79 52 5 55
would you like to see more of at your school site?	LMS Software Programs Educational Games Apps Online Courses Website/Blogs	98 126 95 65 60

3c. District's Curriculum Goals and Academic Content, and Planning Document

Cajon Valley Union School District Strategic Plan 2012 – 2013

1. Students master skills, gain knowledge, and develop personal attributes to be competitive in a global society.

- Increase the percentage of students in each subgroup meeting proficiency levels by 8% as measured by the California Standards Test, now referred to as the California Measurement of Academic Performance and Progress (CalMAPP).
 - Implement District-wide writing framework and performance assessments based upon California Common Core Standards.
 - Revise Response to Intervention plans to improve support for students with disabilities
 - Fully implement District Assistance and Intervention Team (DAIT) plan components at all schools
- Increase percentage of English learners meeting Annual Measurable Objectives (AMAO) 1 and 2 by 8% as measured by CELDT
 - Fully implement Title III LEP plan including English Language Development (ELD) programs/strategies and alternative core programs
 - Differentiate ELD programs to assist English learners with access to core curriculum

2. Students are actively engaged in a balanced program using strategies that address their needs and interests.

- Increase opportunities for all students to develop and demonstrate creativity, problem-solving, and higher-order thinking skills
- Expand program options for students
- Research and develop plan for addressing needs and/or interests of gifted and/or advanced students

3. Resources are allocated in an equitable manner to support student learning.

- Finalize District and Site equipment replacement plans and identify future funding sources
- Seek grants and partnerships to support District vision and goals
- Improve overall student attendance by 1% and continue reducing percentage of students attending less than 95% of school days by 25%
- Improve safety and well-being of staff through wellness training opportunities and safety training for job-specific activities

4. Technology is used to advance learning and increase efficiency.

- Increase support for one-on-one mobile technology.
 - Continue to expand use of mobile technology to support instruction
 - Research impact of mobile technology on student learning and develop guidelines for classroom implementation
 - Explore options for online learning
 - Complete General Obligation Bond infrastructure design to support one-on-one mobile technology for students and staff

- 5. Positive relationships are developed among students, staff, families, and the community.**
- Reduce incidents of bullying, threats, intimidation and physical injury
 - Develop and begin implementation of strategies for marketing District programs and accomplishments

3d. Use of Technology to Improve Teaching and Learning

The district's goal is to determine best ways to continue and accelerate the technology infusion into the curriculum, to build on growing enthusiasm, and to ensure that the technology tools increase student achievement. Another goal of the district is to provide a community where teachers can share best practices, content specific applications and documents, as well as the ability to maintain on-going communication with their colleagues on a variety of educational topics.

Goal 3d.1: All K-8 Teachers will use technology to differentiate learning and improve delivery of instruction to assist students in meeting academic content standards and district curricular goals.

Objective 1: By June 2017, 100% of all K- 8 teachers will demonstrate increased use of technology and supplemental resources to differentiate learning, improve their delivery of instruction and assist students in meeting academic content standards.

BENCHMARKS

End of Year 1: By June 2015, 50% of all K- 8 teachers will demonstrate increased use of technology and supplemental resources to differentiate learning, improve their delivery of instruction and assist students in meeting academic content standards.

End of Year 2: By June 2016, 70% of all K- 8 teachers will demonstrate increased use of technology and supplemental resources to differentiate learning, improve their delivery of instruction and assist students in meeting academic content standards.

End of Year 3: By June 2017, 100% of all K- 8 teachers will demonstrate increased use of technology and supplemental resources to differentiate learning, improve their delivery of instruction and assist students in meeting academic content standards.

Data Collected and Evaluation Instrument(s):	Schedule for Evaluation	Program Analysis and Modification Process	Persons Responsible
Purchase orders, training materials, workshop sign-in sheets, workshop evaluations, teacher samples of technology-enriched lesson plans, login records for subscription services, student assessments, examples of student work.	Quarterly	Teachers and site administrators will analyze progress, disseminate best practices and next best steps, and modify with stakeholders' assistance.	Language Arts and Math Coordinator, Teachers, Site Administrator, Coordinator of Educational Technology

Implementation Steps:

- Purchase (as needed) and verify teacher use of the appropriate state-adopted instructional materials, standards-aligned textbooks, supplemental curriculum-based technology resources (Beginning August, 2014)
- Provide training for teachers and Principals in use of web-based resources, and supplemental digital curriculum that support CCSS and electronic versions of state-adopted textbook materials. (Beginning August 2014 and continuing yearly through online self-guiding training, release time, afterschool, and summer break)
- Provide training for teachers and Principals in use of mobile devices in the classroom through a team-based format that will provide on-going professional development.
- Provide District Resource page and online Forum for teachers and administrators to develop and share technology resources and instructional strategies that align with academic standards and instructional strategies. (Beginning September, 2014 and ongoing)
- Provide Time at Staff Meetings for teachers to share engaging and motivating technology resources and instructional strategies (Beginning September, 2014 and ongoing)

Goal 3d.2: Students will use technology tools to master content standards, support higher order thinking and rigor, increase collaboration, and participate in global learning communities.

Objective 3d.2a: By the 2016-2017 school year, all kindergarten – 2nd graders will use available technology tools to practice reading and math skills as part of their instructional program.

Objective 3d.2b: By the 2016-2017 school year, all 3rd-4th graders will use available technology tools to support their reading and writing program, research skills, mathematical thinking skills, and to collaborate with peers.

Objective 3d.2b: By the 2016-2017 school year, all 5th – 8th graders will use available technology tools to support their reading and writing program, research skills, problem solving skills, collaborate with peers, and to participate in global learning communities.

BENCHMARKS

End of Year 1: By the end of the 2014-2015 school year, 60% students will use available technology tools to meet or exceed their grade-level objectives stated above.

End of Year 2: By the end of the 2015-2016 school year, 80% students will use available technology tools to meet or exceed their grade-level objectives stated above.

End of Year 3: By the end of the 2016-2017 school year, 100% students will use available technology tools to meet or exceed their grade-level objectives stated above.

Data Collected and Evaluation Instrument(s):	Schedule for Evaluation	Program Analysis and Modification Process	Persons Responsible
Student usage logs of reading, writing, language development, math, grade-level appropriate educational software and websites. Student usage logs of Wikis, Google Docs, Edmodo type social sites, and videoconference applications. Student usage logs of online databases for content curation, reasoning and problems solving scenarios/websites, teacher lesson plans, and student products/outcomes.	Quarterly	Determine whether targets have been met; if not, disaggregate the data, develop plan to target missed populations.	Language Arts and Math Coordinator, Teachers, Site Administrator, Coordinator of Educational Technology

Implementation Steps:

- Identify and share out model lessons plans that support the objectives of each of grade level groups mentioned above (Beginning in November, 2014 and ongoing)
- Identify and share out a core set of websites and applications that can support the identified skills for each content area and skill mentioned in the objectives (Beginning in November, 2014 and ongoing)
- Teachers will adapt lessons plans so that students in grades K-2 will participate in at least two assignments that demonstrate appropriate use of technology skills to communicate understanding of learning objectives. (Beginning in December, 2014 and ongoing)
- Teachers will adapt lessons plans so that students in grades 3-4 will participate in at least three assignments that demonstrate appropriate use of technology skills to communicate understanding of learning objectives. (Beginning in December, 2014 and ongoing)
- Teachers will adapt lessons plans so that students in grades 5-8 will participate in at least four assignments that demonstrate appropriate use of technology skills to communicate understanding of learning objectives. (Beginning in December, 2014 and ongoing)
- Provide access and training to collaboration sites (Beginning November, 2014 and ongoing)
- Provide access and training in videoconferencing tools (Beginning November, 2014)

3e. How Students will Acquire Technology Skills

Preparing our students for an information rich environment is a top priority. Technology and information literacy skills are critical to the success of our students as they work toward high standards of achievement and move on to high school requirements and the world beyond. Information literacy skills include: accessing information efficiently and effectively, evaluating information critically and competently and using information accurately and creatively from the Internet. This includes upper elementary and secondary students learning to site Internet information correctly. Students must learn to ask thought-provoking questions, engage in strategic reading, use technology resources where appropriate, interpret and evaluate information, solve problems, and develop new insights. These are skills that must be taught directly and in the context of meaningful instruction.

Goal 3e. K-8 students will achieve the NCLB goal of being technology literate by 8th grade. Students will develop proficiency with technology skills as outlined in the National Educational Technology Standards (NETS).

Objective 1: By June 2017, 100% of all K-8 students will demonstrate proficiency in technology literacy skills at the appropriate grade level, as measured by the National Educational Technology Standards (NETS) Performance Indicators. (See Appendix)

BENCHMARKS

End of Year 1: By the end of the 2014-2015 school year, 50% of all K-8 students will demonstrate proficiency in technology literacy skills at the appropriate grade level, as measured by the National Educational Technology Standards (NETS) Performance Indicators.

End of Year 2: By the end of the 2015-2016 school year, 70% of all K-8 students will demonstrate proficiency in technology literacy skills at the appropriate grade level, as measured by the National Educational Technology Standards (NETS) Performance Indicators.

End of Year 3: By the end of the 2016-2017 school year, 100% of all K-8 students will demonstrate proficiency in technology literacy skills at the appropriate grade level, as measured by the National Educational Technology Standards (NETS) Performance Indicators.

Data Collected and Evaluation Instrument(s):	Schedule for Evaluation	Program Analysis and Modification Process	Persons Responsible
NETS-S, Student products, student rubric, Surveys for teachers, Classroom observations by site admin., technology-based student output/projects demonstrating proficiency in grade level appropriate technology skills.	Yearly	Determine whether targets have been met; if not, disaggregate the data, develop plan to target missed populations.	Teachers, Site Admin., Coordinator of Ed.Tech., District Tech. Committee

Implementation Steps:

- Raise teacher awareness of the NETS standards and analyze how they can apply to the curriculum (Beginning October, 2014 and ongoing)
- Design grade level appropriate rubrics for research projects and performance tasks that are aligned with 21st Century Skills curriculum based on NETS Standards. (Beginning February, 2015 and ongoing)
- Identify and schedule appropriate professional development based on student and staff needs each year. (September 2014 and continue as needed through June, 2017)
- Share Model lessons highlighting implementation of NETS standards to core subjects in K-8 focusing on how students can demonstrate mastery of both the curriculum and the technology skills (Beginning October, 2014 and ongoing)
- Assess student progress on an annual basis (Beginning November, 2014 and every year thereafter)
- Collect examples of best practices and continue to share out district-wide (Beginning in January, 2015 and continuing quarterly thereafter).
- Collaborate in grade level groups both online and face-to-face to develop and share solutions on incorporating technology skills into student’s learning. (Beginning January, 2015 and ongoing)

3f. Appropriate and Ethical Use of Information Technology in the Classroom

<p>Goal 3f. Students, teachers and administrators know and follow U.S. copyright laws and can distinguish lawful from unlawful uses of copyrighted works. Students, teachers and administrators can distinguish lawful from unlawful downloading and peer-to-peer file sharing. Students and teachers understand plagiarism, Fair Use, and the need for respecting intellectual property.</p>			
<p>Objective 1: By June 2017, 100% of all students will receive grade-appropriate instruction and understand lawful and unlawful uses of copyrighted works, Fair Use Guidelines, respecting intellectual property, plagiarism and illegal file sharing.</p>			
<p>BENCHMARKS</p>			
<p>End of Year 1: By the end of the 2014-2015 school year all 6 -8 students will receive grade appropriate instruction and understand lawful and unlawful uses of copyrighted works, Fair Use Guidelines, respecting intellectual property, plagiarism and illegal file sharing.</p>			
<p>End of Year 2: By the end of the 2015-2016 school year, all 3-8 students will receive grade appropriate instruction and understand lawful and unlawful uses of copyrighted works, Fair Use Guidelines, respecting intellectual property, plagiarism and illegal file sharing.</p>			
<p>End of Year 3: By the end of the 2016-2017 school year, all K-8 students will receive grade appropriate instruction and understand lawful and unlawful uses of copyrighted works, Fair Use Guidelines, respecting intellectual property, plagiarism and illegal file sharing.</p>			
Data Collected and Evaluation Instrument(s):	Schedule for Evaluation	Program Analysis and Modification Process	Persons Responsible
<p>Site administrator observations, Collection of sample lesson plans on Internet safety, posted links to copyright free sites, Teacher and Administrator Training Logs, Student products will be reviewed for evidence of compliance to intellectual property.</p>	<p>Yearly</p>	<p>Determine whether targets have been met; if not, disaggregate the data, develop plan to target missed populations.</p>	<p>Site Administrators, IT Department, Teachers, Coordinator of Ed. Technology</p>
<p>Implementation Steps:</p>			
<ul style="list-style-type: none"> • Revise Acceptable Use Agreement for Students (Beginning October, 2014 and ongoing) • Establish series of (webcasts), lessons and/or badges for teachers, students and administrators focusing on ethical use of information technology including the following topic: copyright, fair use guidelines, respecting intellectual property, plagiarism and illegal file sharing. (Beginning in October, 2014 and ongoing) • Create and post a list of copyright-friendly multimedia sites for finding images, video and audio for curricular projects and classroom use. (Beginning October, 2014 and ongoing). • Share lesson series with CVUSD staff, parents, and students (Beginning October, 2014 and ongoing) • Implement online curriculum and videos that will address copyright and fair use, downloading and file sharing, and plagiarism. (Beginning November, 2014 and ongoing) 			

3g. Goals and Activities to Address Internet Safety

The Information Services Department and District Office will continue to raise awareness about Internet safety, online privacy, and online predators. Information and lessons will be presented to parents, teachers, and students. All students and parents will sign the Acceptable Use Policy (AUP) to reinforce the importance of Internet safety both at home and school.

Goal 3g. The District will address Internet safety, including how to protect online privacy and avoid online predators by providing parents teachers and students with Cybersafety and Digital Citizenship information and by developing Internet safety lessons for students.			
Objective 1: By June 2017, all Instructional staff and K-8 students will receive grade-appropriate instruction and understand how to protect their online privacy, avoid online predators, how to address Cyberbullying, and how to appropriately interact in online discussions through District literature and teacher presented-lessons.			
BENCHMARKS			
End of Year 1: By the end of the 2014-2015 school year, all 3 rd – 8 th grade students will receive grade appropriate instruction and understand how to protect their online privacy, avoid online predators, how to address CyberBullying and how to interact appropriately in online discussions through District literature and teacher presented-lessons.			
End of Year 2: By the end of the 2015-2016 school year, all 2 nd – 8 th grade students will receive grade appropriate instruction and understand how to protect their online privacy, avoid online predators, how to address CyberBullying and how to interact appropriately in online discussions through District literature and teacher presented-lessons.			
End of Year 3: By the end of the 2016-2017 school year, all K – 8 th grade students will receive grade appropriate instruction and understand how to protect their online privacy, avoid online predators, how to address CyberBullying and how to interact appropriately in online discussions through District literature and teacher presented-lessons.			
Data Collected and Evaluation Instrument(s):	Schedule for Evaluation	Program Analysis and Modification Process	Persons Responsible
Site administrators will track the teaching of Internet safety lessons, including online privacy and safety, CyberBullying, and Digital Citizenship. Sample lessons will be collected and shared online with other teachers	Yearly	Determine whether targets have been met; if not, disaggregate the data, develop plan to target missed populations.	Assistant Superintendent of Educational Services, Site Administrators, Coordinator of Educational Technology, Teachers
Implementation Steps:			
<ul style="list-style-type: none"> • Design lessons for teachers and administrators focusing on Cybersafety and Digital Citizenship. (Beginning in September, 2014 and ongoing. Lessons to be reviewed annually at the beginning of each school year). • Establish digital citizenship lessons to share with CVUSD staff, parents, and students (Beginning in November, 2014 and ongoing) • Implement Curriculum and videos that will address cyber bullying and digital citizenship with grade level appropriate exercises and activities (Beginning September, 2014 and ongoing) • Revise Acceptable Use Agreement for Staff and Students (Beginning October, 2014 and ongoing) • Create an online parent education connection on digital citizenship (Beginning December, 2014 and ongoing) 			

3h. Goals and Activities to Ensure Appropriate Access to all Students

Several schools throughout the district have started on limited 1:1 initiatives by purchasing mobile devices for use in core classrooms and/or electives. A total of 26 of our 27 schools have outfitted at least one classroom with a class set of iPod Touches, iPads, or Chromebooks, or Nexus tablets. Access to these devices is also available before and after school at varying times of the week. Many sites now are looking at alternative funding sources to increase access to mobile devices and computer labs. These include additional options for students to receive remediation and/or enrichment in content and language based learning systems. The district is currently augmenting on-campus access to instructional technology by installing managed wireless access points. As funding permits, the district will migrate to browser delivered curriculum software.

Access for Students with Disabilities

The Cajon Valley Union School District is committed to providing students personalized educational plans which promote individuality and ensure students have meaningful, integrated opportunities that support learning. The district and sites are dedicated to meeting the needs of all students, including those with physical disabilities. The sites work closely with the local Special Education Local Plan Area (SELPA) and the District Director of Special Education to provide the appropriate technology equipment that is needed for special education students. Continued opportunities are planned to increase the use of technology tools within the Special Education environment to further individualize the learning plan for each student.

Goal 3h. Increase access and relevancy to the curriculum by expanding the availability of technology resources for 100% of our students.

Objective 1 In June 2017, 100% of our students will have daily access to instructional technology tools (software and/or hardware) related to their core content areas.

BENCHMARKS

End of Year 1 By June 2015, 65% of students will have daily access to instructional technology tools (software and/or hardware) related to their core content areas.

End of Year 2 By June 2016, 80% of students will have daily access to instructional technology tools (software and/or hardware) related to their core content areas.

End of Year 3 By June 2017, 100% of students will have daily access to instructional technology tools (software and/or hardware) related to their core content areas.

Data Collected and Evaluation Instrument(s):	Schedule for Evaluation	Program Analysis and Modification Process	Persons Responsible
Lesson plans and teacher submitted surveys, Fixed asset purchasing data, Technology inventory survey data, Student surveys (middle schools)	June of each year	If program objectives are not met, the district will identify schools and populations where access lags benchmark levels and devote appropriate resources to meet objectives.	Assistant Superintendent of Curriculum and Instruction, Assistant Superintendent of Business Services, Coordinator of Educational Technology, Director of Information Technology, Coordinator of Curriculum and Instruction

Implementation Steps:

- District Office Personnel, in conjunction with Principals and Teachers, will explore the access to online instructional tools including publisher’s websites and e-copy of textbooks. (Beginning October, 2014 and ongoing on quarterly basis)
- Connect with public libraries to network with teachers regarding specific assignments, projects or skills being taught. Computers and other technology tools at our public libraries will also be included as part of our objective to extend appropriate access after school hours. (Beginning September, 2014 and ongoing)
- Site and District administrator, along with Information systems staff, will work to expand 1:1 initiatives described above to more campuses as funding permits. (Beginning August, 2014 and ongoing)
- Information Systems staff will continue with the planning and deployment of robust and reliable wireless Internet access at all campuses. (Beginning August, 2014 and ongoing)
- Teachers will share lessons plans, student work and participate in surveys to measure student access to technology resources. (June, 2015 and ongoing)
- Coordinator of Educational Technology will plan and facilitate professional development for teachers and administrators (Beginning September, 2014 and ongoing)
- District Coordinator of Data and Assessment will disaggregate the data and develop plan to target missed populations. (Beginning August, 2014 and ongoing)

3i. Plan to Utilize Technology to Make Student Record Keeping and Assessment More Efficient and Supportive of Teachers' Efforts to Meet Individual Student Academic Needs.

We are in our seventh year of using OARS (Online Assessment Reporting System), which gives administrators and teachers access to student Information through a protected online website. Teachers are able to look at aggregated and disaggregated data of their current students that includes historical CST and local benchmark assessment information. Teachers are also able to create intervention groups that facilitate the monitoring of targeted students as they take their assessments throughout the year. An additional option is the ability for teachers to create their own assessments focused on any identified standards they feel their students need additional practice on.

Recognizing the importance of monitoring the ongoing progress of our students, the goal is to ensure that all teachers are familiar with the available options within the student assessment system and that our teachers are using the tool to its full capacity. There is great opportunity for growth in the area of assessment. As part of our district's efforts to monitor students' academic needs, all students will participate in the California Assessment of Student Performance and Progress (CAASPP) field test in the Spring 2014 and the CAASPP adaptive online computer-based test beginning in 2015.

Goal 3i. Utilizing technology resources, teachers will be able to access student assessment data and use this information to adjust teaching to meet students' academic needs.

Objective 1: By June, 2017, 100% of teachers will use our student assessment system to record and analyze student achievement data.

BENCHMARKS

End of Year 1: By the end of the 2014-2015 school year, 80% of teachers will use our student assessment system to record and analyze student achievement data.

End of Year 2: By the end of the 2015-2016 school year, 90% of teachers will use our student assessment system to record and analyze student achievement data.

End of Year 3: By the end of the 2016-2017 school year, 100% of teachers will use our student assessment system to record and analyze student achievement data.

Data Collected and Evaluation Instrument(s):	Schedule for Evaluation	Program Analysis and Modification Process	Persons Responsible
Grade Level/Department Mtg. Agendas, Grade Level/Department Mtg. Minutes, Teacher use report, site data reports.	Quarterly	Determine whether targets have been met; if not, disaggregate the data, develop plan to target missed populations.	Assistant Sup. Of Ed. Services, Site Admin., Coordinator of Educational Technology, Teachers

Implementation Steps:

- The Coordinator of Educational Technology will collaborate with the Coordinator of Data and Assessment, and Educational Services to continue to provide support for the use of the student information system to track multiple assessments and plan instruction in the classroom. This includes district level training workshops on this topic as needed (Beginning in August, 2014 and on-going).
- Director of IT and Coordinator of Educational Technology will provide training on the student information to Site Lead Techs (SLT) to provide an additional layer of support for teachers at the site level (Beginning in October 2014 and ongoing as needed).
- Principals will continue to expand the use of grade level and/or department collaboration time for teachers to analyze student data and to create adjustments based on the results (Beginning in October, 2014 and ongoing).
- All students will participate in the California Assessment of Student Performance and Progress (CAASPP) field test in the Spring of 2014.
- All students will participate in the CAASPP adaptive online computer-based test beginning in 2015.
- All students will have exposure to the online practice tests to provide assistance in obtaining the necessary skills needed to test in the online environment.
- All students will have equal access to technology in order to adequately prepare to test in an online environment.
- School site will set practice schedules to allow each student ample preparation and practice time to ensure the highest possible success.
- Students will use scheduled time to practice various skills needed such as drag and drop, highlighting text, and writing in an online platform.

3j. Two-Way Communication between Home and School.

The district web page continues to evolve in an effort to improve home/school communication. The District website provides parents, community members, and students with ongoing information about the district and individual school sites. The School Accountability Report Card (SARC) is posted and updated annually on the district website in English and Spanish. The District continues to augment and update the website and calendar in order to provide timely information that will assist in informing parents about ongoing school-related activities throughout the year (parent advisory meetings, School Board meetings, open house, school lunches, etc.). Parents will also be able to connect to the parent portal where they can have access to academic information for their child. We are currently in the process of updating our district website to enhance the items mentioned above and to provide a higher level of information for both community and staff alike. This will include, among other things, a Teacher Resource Center and a greater level of access by each department to accelerate updates.

Each school site is responsible for updating school web page information. The current goal is that schools have their site main page updated with upcoming current events and a school calendar. Each school website also is to include contact information for pertinent staff in both phone and email format. In addition, each classroom teacher is encouraged to maintain a class site that provides parents with insight on the curriculum and happenings of the academic program. Some teachers also include homework and project information on their web pages. Each school and the district also use a service provided called Blackboard Connect that enables school administrators to record, schedule, send, and track personalized voice messages to parents.

Goal 3j: School information will become more accessible to parents through the use of the school web sites.

Objective 1: By June 2017, 100% of schools will have an updated web site that displays at least the following items: current events, updated school calendar, principal’s message, school accountability report card, and an updated list of staff members with contact (email and phone) information.

BENCHMARKS

End of Year 1: By June 2015, 80% of schools will have a website that includes all of the items mentioned in Objective 1 above.

End of Year 2: By June 2016, 90% of schools will have a website that includes all of the items mentioned in Objective 1 above.

End of Year 3: By June 2017, 100% of schools will have a website that includes all of the items mentioned in Objective 1 above.

Data Collected and Evaluation Instrument(s):	Schedule for Evaluation	Program Analysis and Modification Process	Persons Responsible
Review of school websites before and after development of training videos, statistics on web page usage.	Twice yearly in November and June	If targets have not been met, a plan to provide web site school and department designees with additional professional development will be put in place by the site administrator.	Site Admin., Coordinator of Ed Tech, and site personnel assigned to website support.

Implementation Steps:

- Communicate new school website expectations to principals (August, 2014)
- Use social media such as Facebook, Blogs, and Twitter to communicate to staff, parents and the community.
- Provide training via online video tutorials to a site-designated webmaster on the use and updating of the web site portal via SchoolWorld. (September, 2014 and on-going as needed)
- Director of IT and Coordinator of Educational Technology will provide training on SchoolWorld to Site Lead Techs (SLT) and designated site personnel to provide an additional layer of support for school webmaster and teachers at the site level (Beginning in October 2014 and on going as needed).
- Provide parent education to encourage adoption and use of new technologies (Beginning in October, 2014)
- Establish site based standards and protocol for online communications through the use of websites, email, and other online communication modes (2014-2017)

3k. Monitoring and Evaluation of Technology Plan

A District Technology Committee is comprised of members of the Educational Services Department, Information Technology Services Department, teacher, principal and community representatives. Student representatives are also invited to participate as appropriate. The District Technology Committee will monitor progress toward each section of the plan. The status of implementation will be reported, along with recommendations, to the superintendent and the Board of Trustees on an annual basis. If parts of the plan are not being implemented on schedule, the committee will investigate the causes for delay, remove obstacles to successful completion, or re-evaluate the benchmark timelines. The positive impact of the plan will be evaluated through multiple measures data, student products, teacher, and parent committee input and observations.

The Information Technology Services (ITS) Department shall review on an annual basis parent and teacher utilization rates to determine if communication tools are being utilized consistent with established benchmarks and timelines. Information Technology Services shall utilize client authentication and authorization auditing features within SDOL and Zangle Student Information System management utilities to determine the number of parents and/or guardians utilizing the electronic communication features of SDOL and Zangle software. The ITS Department will also inventory all infrastructure and hardware to assist schools in monitoring their site planning.

The Coordinator of Educational Technology will be responsible for beginning the process of meeting these goals and monitoring their progress. Activities will include scheduling, planning and conducting District Technology Committee meetings, coordinating pilot projects, gathering evaluation data and providing reports of progress to stakeholder groups. The District Technology Committee will receive reports, evaluate data, determine if the Curriculum Component is on track, and evaluate the obstacles that may be preventing satisfactory progress. If necessary, the District Technology Committee will direct changes that need to take place in order to meet the goals of this Technology Plan.

SECTION 4-PROFESSIONAL DEVELOPMENT

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

Certificated Teachers' Technology Proficiency Standards

In 2014 District Teacher Technology Standards were updated for certificated staff. A survey of teacher Technology Readiness Survey was administered in 2014.

Currently training is offered for certificated staff in technology via webinars, after school face-to-face learning, and a support model where teachers participate in online learning with face-to-face support. There are also trainings that occur during the instructional day where teachers are provided a substitute. Offerings are based on input from the Site Lead Technology Teachers, district initiatives, as well as feedback from site and central administrators.

The Coordinator of Educational Technology, Curriculum Facilitators, Site Lead Technology Teachers, Information Technology Services staff and consultants deliver professional development programs to both certificated and classified staff. District education technology trainers model best practices in the integration of technology into the curriculum. The Site Lead Technology Teachers (SLT) provide just-in-time training to site staff, utilizing available hardware and software.

The chart below represents a summary of the District Teacher Technology proficiency levels in 2014.

Teacher survey results show areas of need for teacher professional development to be a.) Using technology in daily instructional practice and adopting a 21st century learning model. b.) Teach parents and students about digital citizenship c.) Redesigning the classroom and teaching style to align with blended learning models. d.) More personalized professional development support from administrators and district personnel.

The survey data reinforces the district's need to provide continued professional development in technology training. A comprehensive scope and sequence of training should be adopted to allow the district to support teachers and administrators as they progress through technology proficiencies with the ultimate goal of full technology integration into the curriculum.

Teacher Technology Readiness Survey Questions 2014

On a scale of 1-10 (1 being lowest and 10 being highest) how would you rate your skills on the following items	Response Count	Response Average
Using technology in your instruction.	164	6.55
Using technology for grading assignments/papers.	162	5.49
Finding new ideas for tech use in the classroom.	163	6.48
Using technology at home.	164	7.86
Using technology for fun.	164	7.58
Using social media.	163	6.57
Helping students use technology.	160	6.53
Helping other teachers use technology	163	6.21
As a teacher I feel prepared to...		
use technology in my instruction.	162	5.15
adopt a 21st century learning environment in my classroom.	159	5.16
share my technology best practices with other teachers.	161	4.91
teach my students about digital citizenship.	161	5.52
talk to parents about digital citizenship.	166	5.23
In order to use technology more in my instruction, I need...		
more professional development/training.	160	6.15
more support from school administrators.	160	5.19
more support from district technology personnel.	160	5.76
to completely change the way I have always taught.	160	4.41
a redesign of my classroom.	160	4.79
I regularly use technology...		
in my instruction.	159	5.41
to grade assignments.	159	3.86
to manage student grades.	159	4.88
to fill out report cards.	160	6.43
to communicate with parents.	160	5.35
When I need help with using technology in my classroom I get help from...		
district tech personnel.	160	3.83
my school site administrators.	159	3.56
other teachers at my school.	159	5.72
online resources such as YouTube videos, blogs, etc.	160	4.99
my students.	161	3.91
professional development consultants.	160	3.45

My school site administrators...		
have clearly communicated the vision for technology use.	161	5.06
foster innovative instructional practice.	160	5.01
support teacher use of technology in the classroom.	161	5.71
support student use of technology in the classroom.	160	5.61
help me to get the training/PD I need for using technology in my instruction.	160	4.47
model the use of technology in meetings, workshops, etc	161	4.86
Technology integration at my school site will be challenged by...		
lack of funding/finances.	161	5.63
lack of tech devices.	159	5.84
lack of teacher buy-in.	158	3.91
lack of tech support.	160	5.44
lack of professional development.	161	5.27
old and outdated tech devices.	160	5.73
priorities of school administrators.	159	3.54
physical space design of classrooms.	161	4.34
restrictions to web access.	159	4.03
student mis-use of online resources.	159	3.01
student mis-use of tech devices.	160	4.11
student & parent demographics.	160	4.43
unreliable Internet connectivity.	161	5.05
What types of technologies...	Response Items	Response Count
are available to you in your classroom?	Desktops	81
	Laptops/Netbooks	95
	Tablets/eReaders	45
	Smart Devices	40
	Digital Projectors	124
	Document Cameras	144
	Smart Boards	3
do you use in your classroom?	Desktops	69
	Laptops/Netbooks	103
	Tablets/eReaders	34
	Smart Devices	37
	Digital Projectors	121
	Document Cameras	134
	Smart Boards	0
would you like to see more of at your school site?	Desktops	48
	Laptops/Netbooks	118
	Tablets/eReaders	93
	Smart Devices	60
	Digital Projectors	35
	Document Cameras	32
	Smart Boards	83

What types of resources		
are available to you in your classroom?	LMS Software Programs Educational Games Apps Online Courses Website/Blogs	16 61 83 53 15 66
do you use in your classroom?	LMS Software Programs Educational Games Apps Online Courses Website/Blogs	11 60 79 52 5 55
would you like to see more of at your school site?	LMS Software Programs Educational Games Apps Online Courses Website/Blogs	98 126 95 106 65 60

Administrators Technology Use Survey Report Results:

The chart below represents the assessment summary of the Instructional Administrators. The survey is most appropriate for technology tools directly used by classroom teachers. It is important to note that this includes both fully completed and partially completed assessments.

On a scale of 1-10 (10 being highest) how would you rate the skills of your teachers as a group on the following items?	Response Count	Response Average
Using technology in their instruction.		4.52
Using technology for grading assignments/papers.	25	3.52
Finding new ideas for tech use in the classroom.	25	4.40
Helping students use technology.	25	4.12
Helping other teachers use technology.	25	4.28
The teachers at my school are prepared to...		
use technology in their instruction.	25	4.56
adopt a 21st century learning environment in my classroom.	25	4.80
share my technology best practices with other teachers.	25	4.32
teach students about digital citizenship.	25	5.20
talk to parents about digital citizenship.	25	4.76
In order to use technology more in their instruction, teachers need...		
more professional development/training.	25	6.60
more support from school administrators.	25	5.48
more support from district technology personnel.	25	5.96
to completely change the way they teach.	25	5.26
to redesign their classrooms.	25	5.60
Teachers at my site regularly use technology...		
in their instruction.	25	4.48
to grade assignments.	25	3.52
to manage student grades.	24	4.96
to fill out report cards.	25	6.20
to communicate with parents.	24	5.13

When teachers need help with using technology in their classrooms they go to...		
district technology personnel.	25	4.52
school site administrators.	25	5.12
other teachers at school.	25	5.72
online resources such as YouTube videos, blogs, etc.	25	4.52
their students.	25	3.96
professional development consultants.	24	3.75
Technology integration at my school site will be challenged by...		
lack of funding/finances.	25	5.68
lack of tech devices.	25	5.28
lack of teacher buy-in.	25	3.80
lack of tech support.	25	5.48
lack of professional development.	25	5.28
old and outdated tech devices.	25	5.16
other educational priorities	25	4.48
physical space design of classrooms.	25	4.48
restrictions to web access.	25	3.80
student mis-use of online resources.	25	3.08
student mis-use of tech devices.	25	3.28
student & parent demographics.	25	3.36
unreliable Internet connectivity.	25	4.72
What types of technologies...	Response Items	Response Count
are available in classrooms?	Desktops	13
	Laptops/Netbooks	17
	Tablets/eReaders	9
	Smart Devices	11
	Digital Projectors	20
	Document Cameras	21
	Smart Boards	1
do teachers use most?	Desktops	6
	Laptops/Netbooks	15
	Tablets/eReaders	2
	Smart Devices	3
	Digital Projectors	17
	Document Cameras	19
	Smart Boards	0
would you like to see more of at your school site?	Desktops	3
	Laptops/Netbooks	19
	Tablets/eReaders	16
	Smart Devices	5
	Digital Projectors	6
	Document Cameras	5
	Smart Boards	10

What types of resources		
are available in classrooms?	LMS Student emails Educational Programs Educational Games Apps Online Courses Platforms to Create Website/Blogs Public Website and Blog Access	2 7 19 14 17 1 8 10
do teachers use most?	LMS Student emails Educational Programs Educational Games Apps Online Courses Platforms to Create Website/Blogs Public Website and Blog Access	2 3 17 9 11 1 1 5
would you like to see more of at your school site?	LMS Student emails Educational Programs Educational Games Apps Online Courses Platforms to Create Website/Blogs Public Website and Blog Access	15 13 20 12 15 16 17 11

4b. Goals and implementation plan for providing professional development opportunities based on the districts needs assessment data and the Curriculum component objectives of the plan

During the next three years (2014-2017) professional development opportunities will be based on yearly District Strategic Plan focus areas, and the results of technology surveys completed by certificated teachers and administrators. There will be a continuous focus on the infusion of best practices for the use of technology to support student learning and increase student achievement.

Professional development will be led and facilitated by the Coordinator of Educational Technology, lead teachers, Information Technology Services staff, site Administrators, as well as outside consultants and trainers associated with products and services purchased. Site Lead Technology teachers will continue to meet monthly with the District Coordinator of Educational Technology to review trends and practices in educational technology, receive professional development opportunity information, and share best practices observed at the school sites. Many Site Lead Technology teachers will support school trainings at the sites level, support District Summer Academy for Teachers (August) and coach site staff in new programs and equipment as implemented.

In addition to CVUSD resources, teachers regularly will be notified of opportunities to enhance their educational technology skills through the San Diego County Office of Education and local universities.

Goal 4b.1: Provide teachers and support staff with technology skills needed to improve achievement for all students and increase efficiency in delivering the District’s instructional program.

Objective 1: By June 2017, 95% of the classroom teachers and support staff will have proficient level technology literacy skills and the capacity to identify, acquire, integrate and deliver standards-based content as measured by teacher submitted survey data.

BENCHMARKS

End of Year 1: By June 2015, 65% of the classroom teachers and support staff will have proficient level technology literacy skills and the capacity to identify, acquire, integrate and deliver standards-based content as measured by teacher submitted survey data.

End of Year 2: By June 2016, 80% of the classroom teachers and support staff will have proficient level technology literacy skills and the capacity to identify, acquire, integrate and deliver standards-based content as measured by teacher submitted survey data.

End of Year 3: By June 2017, 95% of the classroom teachers and support staff will have proficient level technology literacy skills and the capacity to identify, acquire, integrate and deliver standards-based content as measured by teacher submitted survey data.

Data Collected and Evaluation Instrument(s):	Schedule for Evaluation	Program Analysis and Modification Process	Persons Responsible
Technology survey data, Classroom walkthroughs and observations, District and site level training logs on related topics.	June of each year	If program objectives are not met, the district will identify schools where additional training is needed.	Assistant Superintendent of Educational Services, Site Administrators, Coordinator of Educational Technology, Teachers, Coordinator of Curriculum and Instruction

Implementation Steps:

- The District will provide Professional Development to classroom teachers, administrators, and support staff to improve achievement for all students and increase teacher efficiency in delivering the District’s instructional program. (Beginning in September 2014 and On-going)
- Maintain and explore district-wide initiatives in the areas of Educational Technology (i.e.: mobile devices, collaboration tools, web 2.0 tools) at the teacher level to help built teacher leadership and peer to peer coaching at the site level. (Beginning in September 2014 and On-going)
- District personnel and teacher leaders will facilitate training for teachers and support staff in standards-based academic and curricular programs with an emphasis on effective level of technology implementation. (Beginning in November 2014 and On-going)
- District and Site administrators will provide training in the use of standards-based utility and assessment programs with technology components (Beginning in November 2014 and ongoing)
- A district teacher resource page that will include best practices, a discussion forum, and websites/apps will be created to assist teachers at all levels of proficiency. (Beginning in September 2014 and ongoing)

Goal 4b.2: All designated staff (both district and site level) will have participated in professional development opportunities to ensure a proficient level in web site use and online information management.

Objective 1: By June 2017, all web site administrators will have received necessary training on website use and online information management.

Benchmarks:

End of Year 1 By June 2015, 50% of designated web site administrators will have received website training.

End of Year 2 By June 2016, 75% of the web site administrators will have received necessary training on website use and online information management.

End of Year 3 By June 2017, 100% of web site administrators will have received training for website use and online information management.

Data Collected and Evaluation Instrument(s):	Schedule for Evaluation	Program Analysis and Modification Process	Persons Responsible
Technology survey data, Website review, District and site level training logs and video links on related topics.	June of each year	If program objectives are not met, the district will identify schools where additional training is needed.	Assistant Superintendent of Educational Services, Assistant Superintendent of Business Services, Director of Special Education, Site Administrators, Coordinator of Educational Technology, Teachers

Implementation Steps:

- Identify and train designated staff to be trained for website and online information management (September 2014 – April 2015)
- Lead Trainers will create videos and target needed skills for web site administrators (beginning January 2015 and ongoing)
- Lead Trainers will continue to provide and maintain specific training (as needed) for their school site or department. (Ongoing)

Goal 4b.3: Increase professional development in the use of data analysis tools and assessment programs to inform and individualize instruction

Objective 1: By June 2017, 100% of all teachers and designated support staff will participate in professional development training in using data analysis tools and assessment programs.

Benchmarks:

End of Year 1 By June 2015, 65% of all teachers and designated support staff will participate in professional development training in using data analysis tools and assessment programs.

End of Year 2 By June 2016, 85% of all teachers and support staff will participate in professional development training in using data analysis tools and assessment programs.

End of Year 3 By June 2017, 100% of all teachers and support staff will participate in professional development training in using data analysis tools and assessment programs.

Data collected and Evaluation Instruments:	Schedule for Evaluation	Program Analysis and Modification Process	Persons Responsible
<ul style="list-style-type: none"> ▪ Attendance at training sessions ▪ Teacher Surveys ▪ Usage logs form online training tools like WebEx 	May of each year.	If program objectives are not met, the district will identify schools where additional training is needed and devote appropriate resources to meet objectives.	Coordinator of Data and Assessment, Coordinator of Curriculum and Instruction, Coordinator of Educational Technology, Assistant Superintendent of Educational Services

Implementation Steps:

- The Coordinator of Educational Technology, Coordinator of Data and Assessment, and the Coordinator of Curriculum and Instruction will receive refresher training on the use of our current data assessment tool and other available assessment tools. (September, 2014)
- The Coordinator of Educational Technology, in conjunction with the Coordinator of Data and Assessment and Coordinator of Curriculum and Instruction, will create a comprehensive professional development plan that will include on-site, district level, and online trainings with data analysis tools and assessment programs for teachers. (Beginning October 2014)
- Content of trainings, including online videos and documentation, will be created (October 2014- November 2014)
- Site Administrators will be provided with similar training as teachers that will also include “next steps” suggestions to refine and individualize reports and tools to match their unique needs at their respective school site. (December, 2014)
- Teacher and designated support staff training will become available (January, 2015)
- Site Lead Techs will be given additional “support” training to assist teachers at the site level with report creating and troubleshooting. (February, 2015 and on-going as needed)

4c. Monitoring the Professional Development goals, objectives, benchmarks, and planned implementation activities including roles and responsibilities

A District Technology Committee will be formed and facilitated by the Coordinator of Educational Technology Administrator and comprised of members of the Educational Services Department, Information Technology Services Department, teachers, principals and community representatives. The committee membership will be reviewed on a yearly basis in September with changes made as assignments or personnel change. The District Technology Committee will monitor progress toward each professional development goal using the monitoring activities mentioned in the table below. Progress will be reported to the Assistant Superintendents of Business Services and Educational Services on an annual basis. If parts of the plan are not being implemented on schedule, the committee will investigate the causes for delay, remove obstacles to successful completion, or re-evaluate the benchmark timelines. The positive impact of the plan will be evaluated through multiple measures data, student products, teacher, and parent committee input and observations on a yearly basis. The Table below delineates the specifics regarding persons responsible and the instruments to be used to help measure our progress.

Monitoring Activity	Person Responsible	Schedule
Development of comprehensive Professional Development Plan; update annually.	Coordinator of Educational Technology	Annually in July
Participants register for formal district training; professional development sessions held; agendas and sign-ins kept; participant evaluations collected and analyzed and adjustments in training made.	Site Lead Techs Trainers Principals Coordinator of Educational Technology	Ongoing
Teachers and administrators take the Technology Survey. Teachers fill out technology needs/use survey annually. Those responsible for training will analyze data and decide on training modifications for the coming year.	Site Lead Techs Teachers Principals Coordinator of Educational Technology	Annually
Site administrators conduct daily/weekly classroom walkthroughs, look for specific uses of technology after training is completed, aggregate and analyze data to determine levels of instruction at school. Support providers observe instruction and make individual recommendations. Site Lead Techs collect anecdotal information. All suggest training needed to raise levels of instruction.	Site Administrators Site Lead Techs Assistant Superintendent of Educational Services Coordinator of Educational Technology	Annually
<ul style="list-style-type: none"> • Repeat this procedure each year • Reported to Assistant Superintendent, Educational Services and District Technology Committee 		

SECTION 5 -INFRASTRUCTURE, HARDWARE, TECHNICAL SUPPORT, AND SOFTWARE COMPONENT CRITERIA

5a. Existing Hardware, Electronic Learning Resources, and Technical Support

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.

Existing Conditions

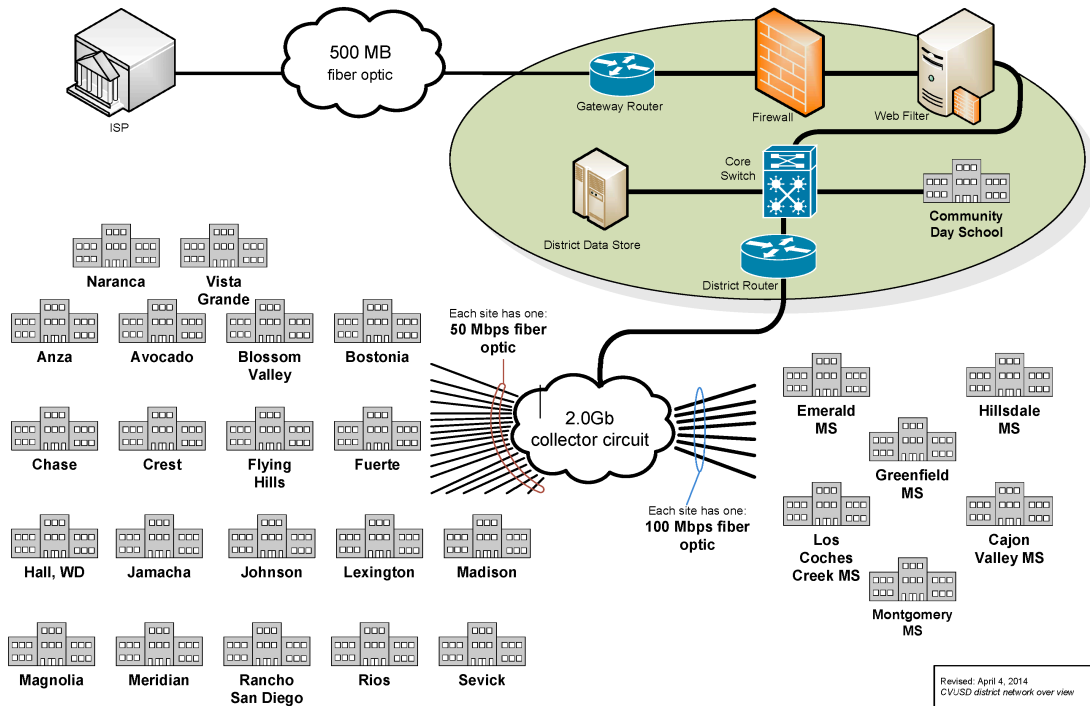
Existing hardware available to support the curriculum and professional development components of the plan consist of: network infrastructure, servers, computers, handheld computers, projectors and cameras.

Cajon Valley's hardware and Internet access is made of the network infrastructure and telecommunications services that connect over 15,000 computerized devices to Cajon Valley's networked services and the Internet.

Network Infrastructure:

Cajon Valley has twenty-seven campuses. These campuses have over one hundred and thirty buildings and portable classrooms collectively. Each campus is connected to the Cajon Valley district office via fiber optic cabling. The throughput of each campus connection varies from 50 Mbps at our smallest campuses to 100 Mbps at our largest.

Cajon Valley Union School District



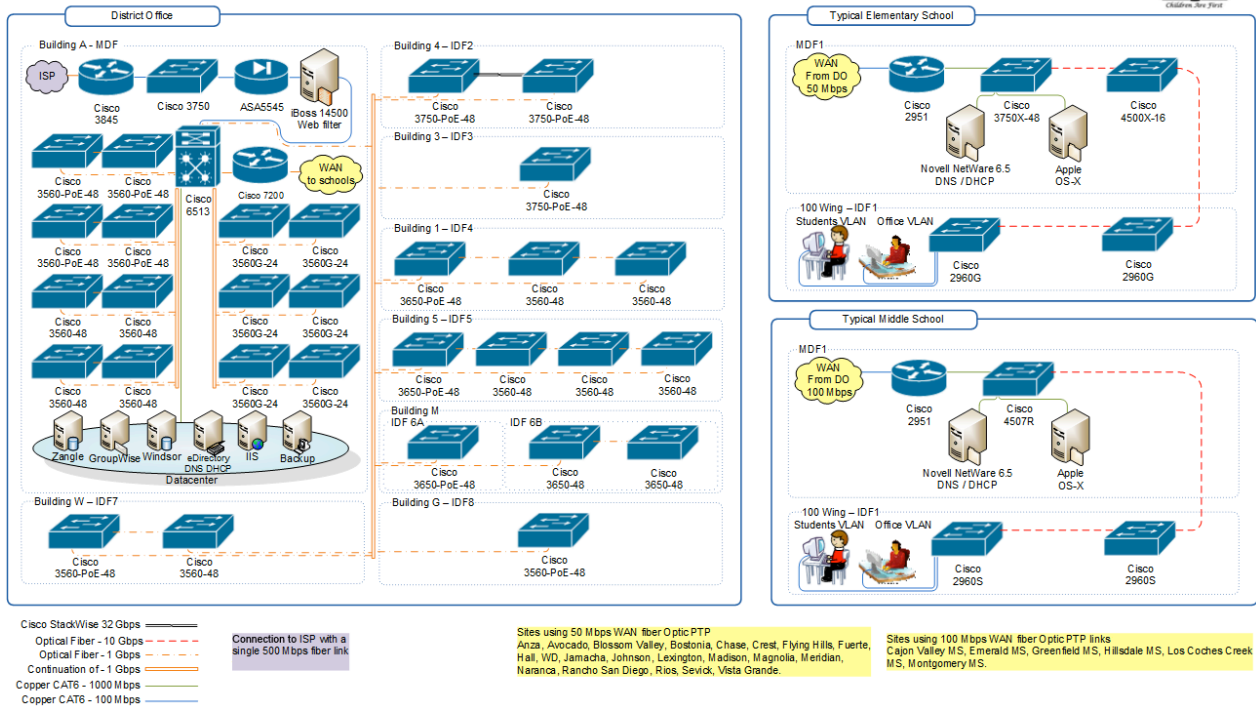
Revised: April 4, 2014
CVUSD district network overview

Figure 1

Campuses are configured in a hub-and-spoke topology. Each campus building houses a single intermediate or main distribution frame (IDF/MDF). Each IDF is connected to a MDF which is connected via fiber to the district office. Infrastructure on each campus consists of routers, switches, servers and wireless access points used to provide connectivity to classroom workstations and handheld computing devices.

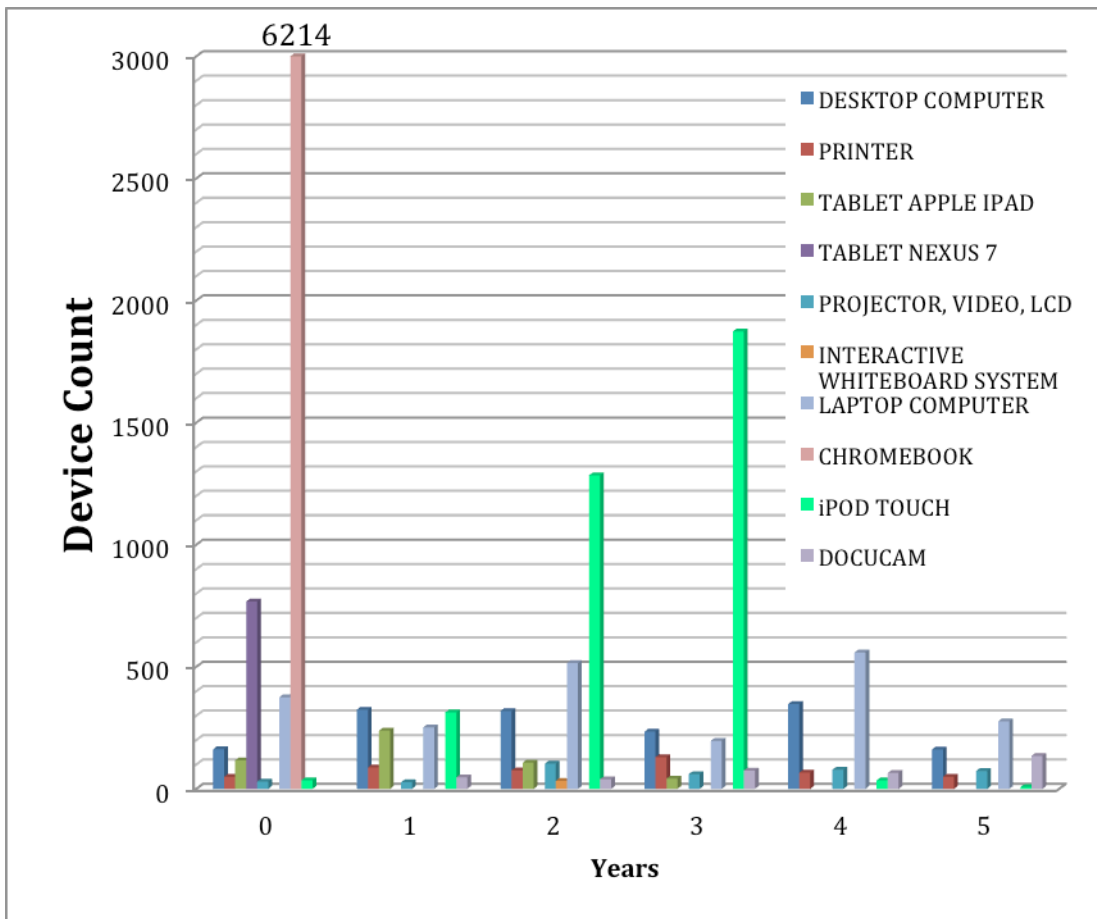
Cajon Valley Union School District

Physical LAN / WAN Design Diagram



Computers, handheld computers, projectors and document cameras:

Over the past 5 years Cajon Valley has purchased exceedingly more portable and mobile devices instead of desktop computer as indicated in years 2 and 3 of chart below. In the 2013/14 school year, Cajon Valley began to deploy Lenovo Chromebooks in a phased rollout of 1:1 devices for all students.



Internet Access

Cajon Valley’s Internet connection is provided through a 500 Mbps fiber link which connects district office data center to the San Diego County Office of Education who serves as Cajon Valley’s Internet Service Provider (ISP).

Electronic Learning Resources

Cajon Valley’s learning resources provide students with a rich and varied media integrated with curriculum to improve student engagement and achievement. Adopted learning resources include but are not limited to:

- *Discovery Education – hosted on-demand educational videos
- *Renaissance Learning– locally hosted learning and assessment system
- *Safari Montage – Local on-demand educational videos
- *Read 180 – locally hosted comprehensive reading system
- *Imagine Learning – language and literacy software

Annual contracts are currently in place to support curriculum goals as outlined in the plan. See the budget on page 55 for an accounting of these resources. A more detailed description of learning resources can be found in section 3b of this plan.

Technical Support

There are three tiers of direct classroom based technical support provided by a combination of central office and site assigned staff members. Staff engage regularly in the ongoing maintenance of technology infrastructure, hardware, software, and professional development necessary to achieve the District's education technology goals and objectives.

- Support is provided at the site level by site lead teachers (SLTs) who provide first responder service to solve simple hardware and software issues.
- Five Computer Support Technicians (CSTs) are assigned to 11 sites where they provide on-site assistance to teachers, administrators, and staff. CSTs may load, configure, and maintain educational software; isolate equipment malfunctions; run software diagnostic programs; and assist with network and hardware installations.
- At the district level there are four full-time Computer Network Technician Ones (CNT I) who provide direct classroom support. CNTs are assigned work via our work order system and perform higher level duties in support of classroom computers, peripherals, and networked devices. CNT I may troubleshoot, isolate, remove and replace parts, and correct a variety of hardware and software issues on computers, peripherals, and other networked devices.

The Computer Network Technician Two (CNTII) and the CNT Supervisor provide the highest level of end-user support and serve as a technical resource for the SLT, CST and CNTI. These staff members will perform more complex tasks related to design, implementation, troubleshooting and repair of client server configuration, end-user hardware and networking.

The remaining staff consists of a Network Engineer, Database Specialist, Programmer/Analyst, Administrative Assistant, Director of Information Technology Services (ITS), and Chief Technology Officer. The Network Engineer's duties include: planning, design, and installation of infrastructure equipment, servers, and networks; installation of network operating systems and application software; system upgrades, updates and maintenance; and the maintenance of the district data center equipment. The Database Specialist and Programmer/Analyst maintain a variety of critical database systems used by teachers, administrators, and staff. An Administrative Assistant, Director of ITS, and the Chief Technology Officer, complete the ITS department. The ITS staff members as a team provide a full range of technical support for teachers and administrative staff. The team uses a variety of tools to support their work including: Tools4Ever UMRA, What's Up, SolarWinds, CACTI, Xirrus Management System (XMS), Cisco, Apple, and other on-line tools. This entire team is on hand to provide a wide range of support needed to achieve the technology goals of the District.

Ongoing training for support staff is provided through online and instructor led courses. All team members are encouraged to actively pursue avenues of self-improvement. Achievement in this area is monitored via the periodic performance evaluation/review process. Evaluations are performed by each member's immediate supervisor.

5b. Hardware, Networking/Telecommunications, Learning Resources, and Technical Support Needed for Implementation of the Plan

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.

Needed Technology Hardware and Infrastructure

The networking, infrastructure, plant modification, and technical support needed to provide ongoing support to the curriculum and professional development components of the technology plan are driven by the proliferation of mobile and portable computing devices, the need for robust wireless connectivity, and ever increasing demands on facilities infrastructure. Curriculum goals continue to push the limit of technological resources and underscore the need to develop and implement an annual refresh of existing hardware to continue to keep pace with current education technologies. In order to accomplish this, it is necessary to develop a plan that will both correct current deficiencies and replenish outdated technology in order to maintain a high state of readiness and conformance to existing and future technologically dependent educational goals.

Digital telephony and telecommunication play an important role in effectively communicating with parents and guardians of students. The District continues to rollout enhanced telecommunication systems to improve teacher-to-teacher collaboration and parent-teacher communication.

Physical Plant Modifications and network infrastructure

Modernization projects, funded through government obligation bonds, continue to upgrade existing structural facilities, cabling and electrical plant modifications, wireless network infrastructure and hardware, VoIP telecommunications, and HVAC systems. ITS, Facilities, Maintenance, and Long Range Planning will continue to evaluate the need for additional modifications on an annual basis.

Electronic Learning Resources

Current resources, as outlined in 5a, are adequate for implementation of the district's plan. Individual sites are able to use monies for supplemental support based on student need.

Technical Support needed to support the plan

In order for district staff to effectively support teachers, staff, students and maintain over 16,000 end-user devices, ITS staff will continue to gain certifications, and the district will enter into maintenance agreements to augment ITS skills, and to provide quick and effective support of hardware and software maintenance activities. Among the activities the District will engage in are:

Self-Maintainer Program: The ongoing support of the district's growing mobile device inventory necessitates the quick and effective remediation of equipment failures. District participation in the manufacturer's Self Maintainer Program will allow District technical staff to conduct warranty repair work on vendor hardware. Such warranty repairs require district technicians to be A+ certified prior to ordering parts and will allow the District to be reimbursed for work completed.

A+ Certification: Utilizing a web based IT training and reference solution, Computer Network Technicians will have access, from any device, to take courses and become certified A+ Technicians.

Google Apps for Education Certification: In order to facilitate the effort of classroom teachers, and promote the effective use of adopted online tools, technicians will take online courses offered via the Google for Education website. The online Google for Education courseware will allow technicians to gain essential skills related to Google Gmail, Calendar, Sites, Docs and Drive.

Ongoing training for support staff is provided through online and instructor led courses. All team members are encouraged to actively pursue avenues of self-improvement. Achievement in this area is monitored via the periodic performance evaluation/review process. Evaluations are performed by each member’s immediate supervisor.

Listing of Technology Hardware Necessary to Implement Goals 2014 – 2017

The district will continue to leverage the federal e-rate program which provides discounts on eligible technology related products and services. These e-rate dollars will be used to augment the existing budget and provide relief to strained budgetary commitments.

Below is a list of the necessary hardware, infrastructure, and ongoing licensing needed to implement curriculum components of the technology plan.

Listing of Technology Necessary to Implement Goals 2014 - 2017

Hardware	Quantity
Desktop Computers	600
Portable / Mobile Computers	16,000
Handheld Devices	50
Video Projectors	450
Document Cameras	600
VoIP Phones	100
Infrastructure	
WAN Connection Upgrade: Elementary Schools upgraded to 100Mb connection to District Office	20 6
Middle Schools upgraded to 250Mb connection to District Office	
Router at each site capable of 1Gbps to district office	27
VoIP phone system licensing and support: Clients	2,000
System Modules	6
Wireless Arrays: Hardware	300 arrays ~
Support (software support and licensing – licensed per radio)	4,000 radios
Physical Plant	
No modifications needed	

5c. Benchmarks and Timeline for Obtaining Hardware, Learning Resources and Technical Support

List of clear annual benchmarks and a timeline for obtaining the hardware, infrastructure, learning resources and technical support required to support the other plan components as identified in Section 5b.

Hardware Goals, Objectives, Benchmarks, and Evaluation			
Goal: Provide hardware, and software required by teachers, students and staff to attain District curriculum goals and objectives.			
Objective 1: By June 30, 2017 the Cajon Valley Union School District will provide access to end-user hardware and software in support of curricular goals and objectives.			
BENCHMARKS			
End of year 1: By the end of the 2014-2015 school year, update 50% of computers, input/output devices, software and peripherals district-wide.			
End of year 2: By the end of the 2015-2016 school year, update 75% of computers, input/output devices, software, and peripherals district-wide.			
End of year 3: By the end of the 2016-2017 school year, update 100% of computers, input/output devices, software, and peripherals district-wide.			
Data Collected and Evaluation Instrument(s):	Schedule for Evaluation	Program Analysis and Modification Process	Persons Responsible
Annual inventory report, Fixed asset purchasing data, Teacher Technology Survey Data.	Yearly	Reevaluate the state of available technology and its suitability for current curricular needs. Revise as needed.	Dir. of IT, Dir of Ed Tech. and District Technology Committee
Implementation Steps:			
<ul style="list-style-type: none"> • The Chief Technology Officer, Director of Information Technology, Educational Technology, and the Technology Committee shall identify an annual list of standard equipment for classrooms. (Beginning September 2014 and ongoing) • The Chief Technology Officer, Directors of Information Technology, Educational Technology and the Technology Committee shall meet quarterly to discuss hardware needs and provide direction to decision makers to implement recommendations. (Beginning September 2014 and ongoing) • Individualized reports demonstrating recommendations will be made available to school sites on a biyearly basis (Beginning October 2014 and ongoing) • Necessary hardware and software for sites will be ordered, budget permitting (November, 2014 and ongoing) 			

Learning Resources and Technical Support, Objectives, Benchmarks, and Evaluation			
Goal: Provide access to learning resources for personnel to install, maintain and repair the hardware, software and infrastructure in support of curricular goals and objectives.			
Objective: Provide technical support and professional development methodologies for support staff to maintain a high level of technical competency with adopted technology and an awareness of future technology.			
BENCHMARKS			
End of year 1: By June 2014, 50% of technical support staff shall have received technical training classes covering information technology that will assist in supporting the academic program.			
End of year 2: By June 2016, 75% of technical support staff shall have received technical training classes covering information technology that will assist in supporting the academic program.			
End of year 3: By June 2017, 100% of technical support staff shall have received technical training classes covering information technology that will assist in supporting the academic program.			
Data Collected and Evaluation Instrument(s):	Schedule for Evaluation	Program Analysis and Modification Process	Persons Responsible
Attendance documentation and Instructor/class evaluation surveys. Debriefings by attendees.	Quarterly	Chief Technology Officer, Director of Information Technology will review, assess, and modify professional development methodologies and program directives as required.	Chief Technology Officer, Director of Information Technology.
Implementation Steps:			
<ul style="list-style-type: none"> • Assess needs and establish training goals (Beginning June 2014 and ongoing). • Purchase online and offline self-paced learning tools covering a wide array of information technology subjects (Beginning June 2014 and ongoing). • Assess effectiveness of learning tools and training classes (Beginning June 2014 and ongoing). • Monitor and evaluate staff member's technical proficiency and improvement of skills. 			

Infrastructure Goals, Objectives, Benchmarks, and Evaluation			
Goal: Provide district-wide availability of a robust, fault tolerant, extensible network infrastructure capable of providing client dense wireless and wired environments with rapid and reliable access to network services and media-rich content.			
Objective: By June 30, 2017 the Cajon Valley Union School District will provide needed infrastructure upgrades to at least 100% of school sites to facilitate the use of hardware, software and Internet access.			
BENCHMARKS			
End of Year 1: By the end of the 2014-2015 school year, the Cajon Valley Union School District will provide needed infrastructure upgrades to at least 60% of school sites to facilitate the use of hardware, software and Internet access.			
End of Year 2: By the end of the 2015-2016 school year, the Cajon Valley Union School District will provide needed infrastructure upgrades to at least 90% of school sites to facilitate the use of hardware, software and Internet access.			
End of year 3: By the end of the 2016-2017 school year, the Cajon Valley Union School District will provide needed infrastructure upgrades to at least 100% of school sites to facilitate the use of hardware, software and Internet access.			
Data Collected and Evaluation Instrument(s):	Schedule for Evaluation	Program Analysis and Modification Process	Persons Responsible
District wide facilities assessment, Teacher Technology Survey.	Based on project management life cycle with a report provided by June of each year.	Using gap analysis, based on established operational and functional requirements.	Chief Technology Officer, Long Range Planning Dir. Dir. Info. Tech. Dir. Educational Technology, District Technology Committee
Implementation Steps:			
<ul style="list-style-type: none"> • Build a requirements list based on the district's goals and objectives. (Beginning July 2014) • Assess the status and perform gap analysis of each campus or district facility (Beginning July 2014) • Create site-based estimates and probable cost for improvements at each facility (Beginning August 2014) • Develop specifications and project action plan to install needed infrastructure. (Beginning August 2014 and ongoing) 			

5d. Monitor Process, Benchmarks, and Timelines for 5b

Describe the process that will be used to monitor Section 5b & the annual Benchmarks and timeline of activities including roles and responsibilities.

The activities in section 5b will be monitored by Chief Technology Officer, Director of Long Range Planning and the Director of Information Technology Services. The monitoring process will conform to the standard project management life cycle phases: Initialization, Planning, Implementation and Closure. During the implementation phase monitoring and control protocols are implemented. Milestones are identified and regular meetings are convened with integrators and stakeholders to ensure all requirements are being met. Additionally, the Chief Technology

Officer, Director of Information Technology and the Coordinator of Educational Technology will meet with the tech committee annually to assess existing needs and make recommendations.

SECTION 6-FUNDING AND BUDGET

6a. Established and Potential Funding Sources for Present and Future

Established Funding

Information Technology Services department has funding for maintenance service and technology support. The Educational Technology section of Educational Services Department has \$5,000 for operating expenses as allocated from the Educational Services Department. Teacher Quality budget is used to increase our Technology entitlement. That budget was allocated primarily to Information Technology Services department personnel as well as for Zangle, the work order system and professional development. Categorical funds such as Title I, and LCFF funds have supported the purchasing of school site computers and software as appropriate. Teacher Quality funds are set aside for professional development. Site Lead Techs for each one of our sites are paid through district level funds.

Bond Fund

Proposition D, passed by voters in the Cajon Valley Union School District in February 2008, and Proposition C, passed by voters in 2012, provided a total of \$26,864,504 in funding to upgrade technology infrastructure for all schools and instructional programs. The infrastructure upgrades, which are nearly complete, are resulting in improved connectivity, which allows for maximized utilization of technology and enhanced student learning. In addition, Proposition C provided \$1,800,000 for Educational Technology. These funds will be used for wireless learning devices.

Future Funding

In addition to the funding used in the past we will continue to seek additional avenues of increasing funding for our technology needs. The Coordinator of Educational Technology receives information regarding new funding sources from both the state and federal governments and submits applications as appropriate. A potential source of funding could come from the Education Technology K-12 Voucher Program that promises funds targeted to increase technology in schools. Levels of funding are unknown at this time, and eligible purchases are unclear; however this funding would assist the District in meeting the goals of this Technology Plan.

The District Technology Committee, which will meet quarterly, will evaluate current technology needs and search for additional funding. The Coordinator of Educational Technology will also review all grant information from the San Diego County Office of Education grant information for potential opportunities that match District priorities. Individual school sites also search and often apply for grant funds specific to the needs of the particular school. The Classroom of the Future Foundation, Jimmie Johnson Foundation, and Cox Communications are also resources for potential funding sources.

Possible Cost Savings

Information Technology Services and Purchasing departments will continually seek ways to lower costs of equipment through lease programs, hardware trade-in programs, refurbished equipment, bundling e-rate eligible sites for combined discount, seeking vendor discounts on bundled hardware and/or software and quantity orders.

6b. Estimated Implementation Costs for each Year of the Plan

The table below indicates implementation costs for all three years of this Technology Plan. It assumes full funding will be available to meet all of the goals outlined in the Curriculum, Professional Development, Infrastructure, Hardware, Technical Support and Software components.

Implementation costs for Years 1-3

Budget Code	Year 1	Year 2	Year 3	Justification for Expense
1000 Certificated Employees	\$27,000	\$27,000	\$27,000	Yearly Stipend to SLTs
	\$551,036	\$205,194	\$205,194	Professional Development in the following areas: mobile device implementation, Student Assessment System, Hapara, Badges, Digital Curriculum training.
	\$54,113	\$55,466	\$56,852	FTE Data and Assessment Coordinator
	\$102,252	\$104,808	\$107,428	FTE Coordinator of Educational Technology
2000 Classified employees				
	\$128,070	\$134,473	\$141,197	FTE Chief Technology Officer
	\$112,515	\$115,328	\$118,211	FTE for ITS Director
	\$307,689	\$315,381	\$323,266	ITS Dept.-5 Computer Network Technicians (Supervisor, CNT I & II)

	\$73,784	\$75,629	\$77,520	Lead Computer/Electronics Technician
Computer support Technicians	\$170,101	\$174,353	\$178,712	Computer support Technicians (4)
	\$52,073	\$53,375	\$54,710	ITS Department - Administrative Assistant I
	\$88,819	\$91,039	\$93,315	ITS Dept.-Program Analyst
	\$94,673	\$97,039	\$99,465	ITS Dept.-Network Engineer
	\$66,483	\$68,146	\$69,849	ITS Dept.- Database/Network Analyst
3000 Employee benefits	\$564,455	\$524,084	\$538,305	Per contract requirements to cover health and retirement benefits
4000 Materials and supplies	\$5,000	\$5,000	\$5,000	Software, printing of materials
4000 Equipment - Replacement	\$100,000	\$100,000	\$100,000	Replace Teacher computers with up-to- date computers/ laptops, Increase/Maintain Mobile Device Initiatives
	\$3,414,228	0	0	1:1 New equipment purchases-Chromebooks, tablets and software. Phases III and IV

	\$1,183,000	\$500,000	\$500,000	Equipment Replacement Update routers, switches and servers
5000 Other Services and Operating Expenses	\$76,000	\$76,000	\$76,000	Yearly contract for Student Assessment Data Management System and related peripherals)
	\$62,000	\$62,000	\$62,000	Yearly contract for Zangle
	\$80,000	\$80,000	\$80,000	Hapara – Google Apps management
	\$31,142	\$31,142	\$31,142	Blackboard Connect
	\$4,400	\$4,400	\$4,400	UMRA - Tools4Ever
	\$2,034	\$2,034	\$2,034	Solarwinds - Web Help Desk - Yearly renewal for work order system
	\$56,000	\$56,000	\$56,000	SchoolWorld yearly contract for Web-site
	\$17,276	\$17,276	\$17,276	Follett/Destiny Software
6000 Capital Outlay/Building Improvement	\$196,495	0	0	Cabling and infrastructure upgrades at Lexington Elementary
	0	\$127,171	0	Install VOIP system at Lexington Elem.
	\$1,337,000	\$106,327	0	Install wireless area networks at school sites
Totals	\$8,957,638	\$3,208,665	\$3,024,876	

6c. District Replacement Policy for Obsolete Equipment

The District plan for replacing obsolete administrative computers is based on a four year replacement cycle. Teacher and student computers are on a 5-year cycle depending on available site budgets. Infrastructure upgrades and replacement of administrative computers will be primarily the responsibility of the District. The replacement of teacher and student computers will be primarily the responsibility of the site at this time. School Site Councils, facilitated by the site principal, will approve categorical funds to be used for technology for replacement and upgrades

The District Technology Committee is in clear agreement that there is a need for increased site funding for technology to promote success of this technology plan. An increase in funding for technology is especially important at our higher socioeconomic schools, in order to sufficiently address hardware and software needs. Educational Services, in conjunction with Business Services will work with the District Technology Committee to recommend viable policies and strategies for schools to address and manage expenditures and replacement cycles. This will include alternative funding sources including State and private grants, leasing options, and donations.

6d. Monitoring Progress, Update Funding and Budget Forecast

The Chief Technology Officer will monitor the ITS department budget, and e-rate discounts. The Assistant Superintendent of Educational Services will monitor Categorical and LCFF funds with input from the Coordinator of Educational Technology and the Chief Technology Officer. The Coordinator of Educational Technology and Chief Technology Officer will discuss technology priorities on an ongoing basis at their bimonthly meetings and make recommendations to the Assistant Superintendents of Educational Services and Business Services at their scheduled monthly meetings. Site Principals will evaluate their needs and available resources of their school, and re-allocate as necessary. School Site Councils will work with site principals to allocate site categorical funds to meet their technology needs.

SECTION 7-MONITORING AND EVALUATION

7a. Process for Evaluating Plan Progress and Impact of Technology on Teaching and Learning

The District Technology Plan represents the general guiding direction for the use of technology in the district over the next three years. The monitoring and evaluation of technology’s impact on student learning and attainment of the district’s curricular goals, as well as classroom, school and district management, have been detailed in each of the following components:

- *Curriculum
- *Professional Development
- *Infrastructure, Hardware, Technical Support, and Software
- *Funding and Budget

The evaluation includes the annual benchmarks for each goal, the individual(s) responsible, and the program analysis and modifications needed to successfully implement the District Technology Plan. The staff responsible includes the Coordinator of Educational Technology, Information Technology Services Director, Assistant Superintendents of Educational Services and Business Services, Site Administrators, Site Lead Technology teachers and site leadership teams. School Site Councils will review the data, and School Site Plans will be revised as needed.

7b. Schedule of Evaluation to Measure Effectiveness of Plan Implementation

The District Technology Committee will review the Technology Plan on a quarterly basis throughout the year. Due to the diversity in demographics among Cajon Valley Schools the committee make-up will be representative of that demographic diversity and will include the following:

Title	Group Represented
Information Technology Services Director	Information Technology Services
Educational Technology Administrator	Educational Services
Program Evaluation Administrator	Educational Services-Assessment/Electronic Data Management
Assistant Superintendent, Educational Services	Cabinet and Educational Services
Computer Network Technician Supervisor	Technology Support
Elem. Principal-Title 1 School	Elementary Title 1 Schools
Elem. Principal-Non-Title 1 School	Elementary Non-Title 1 Schools
Middle School Principal-Title 1 School	Middle Schools- Title 1
Middle School Principal-Non Title 1 School	Middle Schools – Non-Title 1
Site Lead Technology Teacher-Middle School	Teachers at Elementary Title 1
Site Lead Technology Teacher- Elem. School	Teachers at Elementary Non-Title 1

Parents and students will also participate as critical members of our monitoring and review process via the district technology committee.

The benchmarks in each component will be reviewed according to the schedule for evaluation included in the sections outlining the goals and objectives of each component. All of the items below will occur during each year of the district technology plan.

Activities	Responsibility
Schools develop a technology action plan embedded within the school plan to assist in the implementation of the District Technology Plan by November of each year	Site Principals Site Leadership Team Site Lead Tech Coordinator of Educational Technology Director of Information Technology
Compare the pre- and post- training with teacher survey results for growth in June of each year	Coordinator of Educational Technology Director of Information Technology Coordinator of Curriculum and Instruction
Use the District Technology Survey completed by each school site in April of each year, to assess the use of technology in the curriculum and the type of use	Coordinator of Educational Technology Director of Information Technology Coordinator of Curriculum and Instruction
Analyze student assessment data for progress in meeting District and state curriculum goals and relate to the use of technology for program improvement by October of each year	Assistant Superintendent of Educational Services Coordinator of Educational Technology Director of Information Technology Coordinator of Data and Assessment Site Principals
Share results of student assessment data analysis with principals, the Board of Trustees and District administrators in the Fall of each year	Assistant Superintendent of Educational Services Coordinator of Educational Technology Coordinator of Data and Assessment
Share technology success stories at District Site Lead Tech meetings through the year, in PTA newsletters, Facebook, local newspapers, district and school web sites	Coordinator of Educational Technology Site Principals Site Lead Techs Teachers
Track attendance and gather evaluation information from District, county and other technology trainings immediately after the training	Coordinator of Educational Technology Coordinator of Data and Assessment
Publish the District Technology Plan on the District Web Site and update by July of each year	Coordinator of Educational Technology Director of Information Technology
Monthly monitor expenditures of technology funds for adherence to the District Technology Plan	Coordinator of Educational Technology Director of Information Technology
Use data from the above activities to modify the District Technology Plan each year	District Technology Committee Coordinator of Educational Technology Director of Information Technology

7c. Reporting and Using Results to Revise the Plan Annually

Thorough and ongoing evaluation of the District Technology Plan is essential to ensure that the goals are being met. Because Cajon Valley Union School District believes that developing the technology and pedagogy skills of teachers, creating technology-rich curriculum, using the tools of technology to enhance District organization and operations and providing quality access to technology will lead to enhanced student-centered learning and improved technology skills for students, it is important that we measure for growth in all areas.

The overall process for monitoring and evaluation of the goals, objectives and benchmarks will be under the direct supervision of the Coordinator of Educational Technology. Data will be collected from a variety of sources including District's Technology Survey, Site Surveys, Professional Development Evaluations, Observation of technology embedded lessons, and asset inventories. Furthermore, site administrators will be responsible for collecting data at each site and will follow the schedule and program analysis and modification process as outlined in each component. The Coordinator of Educational Technology, the Chief Technology Officer, and the Director of Information Technology Systems will present quarterly reports to the district technology committee on the major activities and plans, and will solicit input from the users with regard to their plans, needs, problems, and concerns. The goal will be to facilitate effective and timely planning and action to reach yearly benchmarks. If parts of the plan are not being implemented on schedule, the district technology committee will investigate the causes for delay, remove obstacles to successful completion, or re-evaluate the benchmark timelines. The progress on implementation and any evaluation of the District Technology Plan will be reported on at least an annual basis and by request to the Board of Trustees, Superintendent, Principals, and Site Lead Techs and Parent Advisory groups.

SECTION 8-COLLABORATIVE STRATEGIES WITH ADULT LITERACY PROVIDERS

8a. Adult Literacy Providers Plans to Maximize the Use of Technology

Cajon Valley Union School District is involved in a collaborative effort with parents and community members to address adult language needs through technology within our communities. Cajon Valley Union School District spans the city of El Cajon and part of La Mesa. There is a wealth of available adult literacy providers in the area that include: Cuyamaca and Grossmont Colleges, Grossmont Adult School, community agencies such as: resettlement agencies (i.e. Catholic Charities, The International Rescue Committee and Jewish Family Services), as well as, local churches and volunteer groups (i.e. Ladies of Hope). There are also two branches of the San Diego County Public Library located in the area. The city of El Cajon offers a variety of computer classes at the public libraries through the city's recreation department. San Diego State University, Christian Heritage College, and National University offer teacher education programs to potential teachers and have student teachers in several of the District schools.

In Cajon Valley Union School District 5000 students (30%) are English Learners (EL). Increasing the language ability of the parents of EL students affects the educational and cultural literacy of the family and develops adult models in the home for English acquisition and life-long learning.

Parent education classes are designed to support adult ESL learning. Adult ESL classes are established at seven Cajon Valley schools: Emerald, Naranja, Blossom Valley, Anza , Chase, Johnson, and Lexington. The ESL and Family Education Program provides parents with information on how to enroll in to the district adult schools and community colleges to continue their education. Course instructors are provided by Grossmont Adult School and/or Grossmont Community College. The facilities and child care are provided by the District. These classes reach over 1000 parents a year. District state and federal funds support the adult ESL courses. A unique new literacy program is provided at Montgomery Middle School in learning Mandarin Chinese with funding provided by a partnership with the Confucius Institute. A District English Learner Advisory Committee (ELAC) composed of the District EL Program Coordinator, parents, and District staff review program goals, and objectives annually.

We have included members of our community who serve adult learners to collaborate in the setting of the goals and objectives for the next three years. They have offered their services, courses and publicity to make their courses, which focus on adult literacy, available to District parents and community. We will continue our conversations and consultations with community agencies in our area in support of the sharing of resources to promote adult literacy.

SECTION 9- Effective Research- Based Methods and Strategies

9a. Research and Curriculum/Professional Development Goals

The Cajon Valley Union School District supports educational reform in California and beyond by enhancing opportunities for students through increased access to resources at any time and from any location. Technology is a critical element in the tools used by district teachers and administrators to increase student achievement. Cajon Valley has designed the technology plan to disseminate successful research-based methods and strategies.

A large percentage of the research supporting the goals and strategies outlined in this technology plan comes from the National Education Technology Plan released by the U.S Department of Education in 2010. The plan named, Transforming American Education, Learning, Powered by Technology illustrates the components needed in order to successfully provide the infrastructure and skills required to enhance the learning experience for both teachers and students. It makes clear to identify the areas stipulated below that must exist in order to ensure sustainable progress:

Learning: Engage and Empower

The model of learning described in this plan calls for engaging and empowering learning experiences for all learners. The model asks that we focus what and how we teach to match what people need to know, how they learn, where and when they will learn, and who needs to learn. It brings state-of-the art technology into learning to enable, motivate, and inspire all students, regardless of background, languages, or disabilities, to achieve. It leverages the power of technology to provide personalized learning and to enable continuous and lifelong learning.

Assessment: Measure What Matters

The model of learning requires new and better ways to measure what matters, diagnose strengths and weaknesses in the course of learning when there is still time to improve student performance, and involve multiple stakeholders in the process of designing, conducting, and using assessment. In all these activities, technology-based assessments can provide data to drive decisions on the basis of what is best for each and every student and that, in aggregate, will lead to continuous improvement across our entire education system.

Infrastructure: Access and Enable

An essential component of the learning model is a comprehensive infrastructure for learning that provides every student, educator, and level of our education system with the resources they need when and where they are needed. The underlying principle is that infrastructure includes people, processes, learning resources, policies, and sustainable models for continuous improvement in addition to broadband connectivity, servers, software, management systems, and administration tools. Building this infrastructure is a far-reaching project that will demand concerted and coordinated effort.

Productivity: Redesign and Transform

To achieve our goal of transforming American education, we must rethink basic assumptions and redesign our education system. We must apply technology to implement personalized learning and ensure that students are making appropriate progress through our P-16 system so they graduate. These and other initiatives require investment, but tight economic times and basic fiscal responsibility demand that we get more out of each dollar we spend. We must leverage technology to plan, manage, monitor, and report spending to provide decision-makers with a reliable, accurate, and complete view of the financial performance of our education system at all

levels. Such visibility is essential to meeting our goals for educational attainment within the budgets we can afford.

Each one of the sections mentioned in the National Technology Plan helped shape our Educational Technology goals for teachers and students. It also assisted in guiding our Professional Development Plan and the prioritization of our infrastructure projects.

Our Technology Plan is further substantiated through the research done via the Horizon Report. The Horizon Report series are the most visible outcome of the New Media Consortium's Horizon Project, an ongoing research effort established in 2002 that identifies and describes emerging technologies likely to have a large impact on teaching, learning, research, or creative expression within education around the globe. It then identifies estimated timelines for each of the technologies discussed. Two relevant areas discussed in The Horizon Report are that of Collaborative Environments and Mobile Devices. The timeline given by the Report for implementation is one year or less for Collaborative Environments and two – three years for mobile devices:

Mobile Devices

According to a recent report from mobile manufacturer Ericsson, studies show that by 2015, 80% of people accessing the Internet will be doing so from mobile devices. Perhaps more important for education, Internet capable mobile devices will outnumber computers within the next year. In Japan, over 75% of Internet users already use a mobile as their first choice for access. This shift in the means of connecting to the Internet is being enabled by the convergence of three trends: the growing number of Internet-capable mobile devices, increasingly flexible web content, and continued development of the networks that support connectivity.

Mobiles continue to merit close attention as an emerging technology for teaching and learning. The devices available today are multi-functional and robust, but the story of mobiles is no longer solely about the devices we carry. Mobiles — be they phones, iPads, or similar “always-connected” devices — are doorways to the content and social tapestries of the network, and they open with just a touch. The 2013 Horizon Report placed mobile computing on the current horizon, with an emphasis on the wide range of activities that are now possible using mobile devices. This year, mobiles are here because so many people use them as their first choice for accessing networked resources. The impact of mobiles is being felt in every part of the globe and by more people than ever before. Active mobile accounts continue to grow dramatically, and the supporting infrastructure continues to expand both in urban and remote areas.

Collaborative Environments

Collaborative environments are online spaces where the focus is on making it easy to collaborate and work in groups, no matter where the participants may be. As the typical educator's network of contacts has grown to include colleagues who might live and work across the country, or indeed anywhere on the globe, it has become common for people who are not physically located near each other to collaborate on projects. In classrooms as well, joint projects with students at other schools or in other countries are more and more commonplace as strategies to expose learners to a variety of perspectives. Collaborative environments can be off-the-shelf or assembled from a wide variety of simple, free tools — the key is the interactions they enable, not the technologies they include.

Our Technology Plan includes, via our infrastructure section, a robust wireless environment for each of our schools. This will provide the increased level of access to online resources by both teachers and students. This will also help support our collaborative environments at the school level via our planned online teacher research page.

Another document researched for the plan includes the “Summary of Research for Students Come First.” It discusses the use of mobile devices in a 1:1 setting toward increasing access to content and tools, as well as individualizing instruction for all students. There is now ample research on this topic with substantial variations on the actual tool used and whether or not students can take the devices home.

Research shows mobile computing devices in the classroom can help raise student achievement. These states and large school districts have seen great success in giving students laptops, or other devices, to use in the classroom. In Maine, research has shown the state’s 1:1 laptop program has helped to advance students’ writing scores (1), challenge and engage students in science class (2), and improve students’ problem solving skills (3). A study of the Texas Technology Immersion pilot program (4) found that students made gains in achievement on math assessments and became more technologically proficient by using laptops in the classroom, especially low income students in comparison to their peers. Students who used the laptops also had fewer disciplinary problems throughout the pilot program than their counterparts.

While most of these studies focus on the standardized student achievement as their measure of success, others are attempting to quantify the impact these 1:1 environments are providing for students and teachers. Other impacts include student engagement, motivation, attendance, and relevancy to the curriculum. These are areas that we will be studying locally through our own action research to help monitor our progress and establish our next steps.

The skills needed for students to be successful in the 21st Century have been well documented by many organizations (Partnership for 21st Century Skills, Apple, International Society for Technology in Education). What is consistent with all of these groups is the need to nurture and mature these specific 21st Century skills that provide the foundation for students at school and, ultimately, in the workplace. The following list of 21st Century Skills is provided by the Partnership for 21st Century Skills (2011):

Learning and Innovation Skills

- Creativity and Innovation
- Critical Thinking and Problem Solving
- Communication and Collaboration

Information, Media and Technology Skills

- Information Literacy
- Media Literacy
- ICT Literacy

Life and Career Skills

- Flexibility and Adaptability
- Initiative and Self- Direction
- Social and Cross-Cultural Skills
- Productivity and Accountability
- Leadership and Responsibility

It is critical that these skills are embedded and strategically planned within the curriculum and instruction rather than in isolation. Equally as important is a system of monitoring and assessing

the implementation and application of these skills. Providing settings that encourage and foster these skills, such as Project Based Learning, have demonstrated significant academic success:

There are forty years of accumulated evidence that the instructional strategies and procedures that make up standards-focused Project Based Learning are effective in building deep content understanding, raising academic achievement and encouraging student motivation to learn. Research studies have demonstrated that PBL can:

- *be more effective than traditional instruction in increasing academic achievement on annual state-administered assessment tests.
- *be more effective than traditional instruction for teaching mathematics, economics, science, social science, clinical medical skills, and for careers in the allied health occupations and teaching.
- *be more effective than traditional instruction for long-term retention, skill development and satisfaction of students and teachers.
- * be more effective than traditional instruction for preparing students to integrate and explain concepts.
- * improve students' mastery of 21st-century skills.
- *be especially effective with lower-achieving students.
- *provide an effective model for whole school reform.

Equally as important for students to learn 21st century skills, is the need for our teachers to receive instruction on how to utilize the available technology tools to effectively enhance and individualize the instruction with their students.

If students are to be prepared for these future challenges, schools and districts must recognize that teachers need to expand their skill set and receive training and support to infuse those new skills into the classroom. Teachers not only have to teach traditional subjects in new ways that acknowledge our digital future, they also have to introduce topics that they may not be familiar with and have never taught before. Likewise, district and state administrators must recognize that teacher professional development should be a part of a comprehensive emphasis on 21st century skills, including updates to standards and assessments.

Having a clear vision and ensuring that our technology tools and resources are in line with our academic goals provides a road map for both professional development for our teachers and our instructional plan for our students.

Research Section References

Apple Classroom of Tomorrow –Today Learning in the 21st Century 2008

Bailey, J., Ellis, S., Schneider, C., & Vander Ark, T. (2013). *Blended learning implementation guide*. Digital Learning Now! Retrieved from http://www.digitallearningnow.com/wp-content/uploads/2013/02/DLNSmartSeries-BL-paper_2012-02-05a.pdf

Capon, N, & Kuhn, D. (2004). What’s so good about problem-based learning? *Cognition and Instruction*, 22, 61-79.

Christensen, C., Horn, M. B., & Staker, H. (2013). *Is K-12 blended learning disruptive? An introduction of the theory of hybrids*. Clayton Christensen Institute for Disruptive Innovation.

Geier, R., Blumenfeld, P.C., Marx, R.W., Krajcik, J.S., Fishman, B., Soloway, E., & Clay-Chambers, J. (2008). Standardized test outcomes for students engaged in inquiry-based science curricula in the context of urban reform. *Journal of Research in Science Teaching*, 45(8), 922-939.

The Horizon Report K12 Edition - <http://www.nmc.org/publications/2013-horizon-report-k12>

International Society for Technology in Education Teacher and Student Standards –
<http://www.iste.org/standards/nets-for-students.aspx>
<http://www.iste.org/standards/nets-for-teachers.aspx>

Mergendoller, J.R., Maxwell, N., & Bellisimo, Y. (2007). The effectiveness of problem based instruction: A Comparative Study of Instructional Methods and Student Characteristics. *Interdisciplinary Journal of Problem-based Learning*, 1(2), 49-69.

National Education Technology Plan 2010 - <http://www.ed.gov/technology/netp-2010>

National Education Association – Research Spotlight on Project Based Learning -
<http://www.nea.org/tools/16963.htm>

Oliver, K. & Stallings, D. (2014). Preparing Teachers for Emerging Blended Learning Environments. *Journal of Technology and Teacher Education*, 22(1), 57-81. Chesapeake, VA: SITE. Retrieved March 2, 2014 from <http://www.editlib.org/p/112374>.

The Partnership for 21st Century Skills - <http://www.p21.org/>

Project Based Learning for the 21st Century - http://www.bie.org/about/does_pbl_work

Project Tomorrow Speak Up. (2010, May). Unleashing the future: Educators “speak up” about the use of emerging technologies for learning. Project Tomorrow.

Summary of Research for Students Come First – Department of Education State of Idaho – 2010
<http://www.sde.idaho.gov/site/studentscomefirst/>

US Department of Education Office of Educational Technology. (2010). Learning powered by technology: transforming American education (National Education Technology Plan 2010).

Warlick, D. (n.d.). Literacy & learning in the 21st Century. Retrieved May, 2010, from <http://www.myteacherpages.com/////literacy.pdf>

Watson, J., Murin, A., Vashaw, L., Gemin, B., & Rapp, C. (2010). Keeping pace with k-12 online learning: An annual review of policy and practice. Evergreen Education Group.

9b. Development and Utilization of Innovative Strategies for using Technology to Deliver Rigorous Academic Courses and Curricula, Including Distance Learning Technologies

Cajon Valley Elementary School District is acutely aware of the time constraints that our teachers and site administrators deal with every day. Training opportunities have been designed so participants can take part 24/7. Additional content specific videos will become available via our video-streaming server from any internet-connected computer in school or at home. We will also be providing online professional development through the use video of conferencing that will also be recorded and available in an “on demand” format. Also, our district online resource page will be accessible for our teachers and support staff and will provide an online repository of best practices and curriculum. Teachers will also be encouraged to utilize online tools such as websites to extend the learning beyond the instructional day.

Technologies that are in the initial and intermediate phases include: the use of "podcasting," one-to-one student wireless access, the use of integrated learning systems that provide individualized feedback and practice, and dynamic Web 2.0 tools in the classroom.

In order to achieve these goals, the district will be enhancing infrastructure in various areas. First, the network environment will need to be improved to include a robust wired and wireless environment at all of our schools. This will provide the necessary access points for students and teachers to attain supplemental and enrichment material in all core areas. This will also provide teachers increased opportunities with video conferencing across all borders, increasing the rigor and quality of instruction. Finally, we will continue with our 1:1 initiatives as funding allows that will allow students “on the spot” access to content and tools.

Appendix C – Criteria for EETT Funded Technology Plans

A technology plan needs to “Adequately Address” each of the following criteria:

1. PLAN DURATION CRITERION	Page in District Plan	Example of Adequately Addressed	Example of Not Adequately Addressed
The plan should guide the district's use of education technology for the next three to five years. (For a new plan, can include technology plan development in the first year)	4	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.
2. STAKEHOLDERS CRITERION Corresponding EETT Requirement(s): 7 and 11 (Appendix D).	Page in District Plan	Example of Adequately Addressed	Example of Not Adequately Addressed
Description of how a variety of stakeholders from within the school district and the community-at-large participated in the planning process.	5	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.
3. CURRICULUM COMPONENT CRITERIA Corresponding EETT Requirement(s): 1, 2, 3, 8, 10, and 12 (Appendix D).	Page in District Plan	Example of Adequately Addressed	Example of Not Adequately Addressed
a. Description of teachers' and students' current access to technology tools both during the school day and outside of school hours.	7	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. Description of the district's current use of hardware and software to support teaching and learning.	8	The plan describes the typical frequency and type of use (technology skills/information and literacy integrated into the curriculum).	The plan cites district policy regarding use of technology, but provides no information about its actual use.
c. Summary of the district's curricular goals that are supported by this tech plan.	15	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.
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.	17	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.
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.	19	The plan delineates clear goals; measurable objectives, 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.

<p>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 and teachers 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-to-peer file sharing; and avoiding plagiarism</p>	<p>20</p>	<p>The plan describes or delineates clear goals outlining how students and teachers 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.</p>	<p>The plan suggests that students and teachers 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>
<p>g. List of goals and an implementation plan that describe how the district will address Internet safety, including how students and teachers will be trained to protect online privacy and avoid online predators.</p>	<p>21</p>	<p>The plan describes or delineates clear goals outlining how students and teachers will be educated about Internet safety.</p>	<p>The plan suggests Internet safety education but is not specific enough to determine what actions will be taken to accomplish the goals of educating students and teachers about internet safety.</p>
<p>h. Description of or goals about the district policy or practices that ensure equitable technology access for all students.</p>	<p>22</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. 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>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>24</p>	<p>The plan delineates clear goals, measurable objectives, 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>26</p>	<p>The plan delineates clear goals, measurable objectives, 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>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>

4. PROFESSIONAL DEVELOPMENT COMPONENT CRITERIA Corresponding EETT Requirement(s): 5 and 12 (Appendix D).	Page in District Plan	Example of Adequately Addressed	Example of Not Adequately Addressed
a. Summary of the teachers' and administrators' current technology proficiency and integration skills and needs for professional development.	29	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 Commission on Teacher Credentialing (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. List of clear goals, measurable objectives, annual benchmarks, and an implementation plan for providing professional development opportunities based on your district needs assessment data (4a) and the Curriculum Component objectives (Sections 3d - 3j) of the plan.	36	The plan delineates clear goals, measurable objectives, 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 - 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.
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.	40	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.

5. INFRASTRUCTURE, HARDWARE, TECHNICAL SUPPORT, AND SOFTWARE COMPONENT CRITERIA Corresponding EETT Requirement(s): 6 and 12 (Appendix D).	Page in District Plan	Example of Adequately Addressed	Example of Not Adequately Addressed
a. 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.	41	The plan clearly summarizes the existing technology hardware, electronic learning resources, networking and telecommunication infrastructure, and technical support to support the implementation of the Curriculum and Professional Development Components.	The inventory of equipment is so general that it is difficult to determine what must be acquired to implement the Curriculum and Professional Development Components. The summary of current technical support is missing or lacks sufficient detail.
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.	46	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.	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.
c. List of clear annual benchmarks and a timeline for obtaining the hardware, infrastructure, learning resources and technical support required to support the other plan components identified in Section 5b.	48	The annual benchmarks and timeline are specific and realistic. Teachers and administrators implementing the plan can easily discern what needs to be acquired or repurposed, by whom, and when.	The annual benchmarks and timeline are either absent or so vague that it would be difficult to determine what needs to be acquired or repurposed, by whom, and when.

d. Describe the process that will be used to monitor Section 5b & the annual benchmarks and timeline of activities including roles and responsibilities.	50	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.
6. FUNDING AND BUDGET COMPONENT CRITERIA Corresponding EETT Requirement(s): 7 & 13, (Appendix D)	Page in District Plan	Example of Adequately Addressed	Example of Not Adequately Addressed
a. List established and potential funding sources.	52	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 or are so general as to be useless.
b. Estimate annual implementation costs for the term of the plan.	53	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. Describe the district's replacement policy for obsolete equipment.	56	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. Describe the process that will be used to monitor Ed Tech funding, implementation costs and new funding opportunities and to adjust budgets as necessary.	56	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.

7. MONITORING AND EVALUATION COMPONENT CRITERIA Corresponding EETT Requirement(s): 11 (Appendix D).	Page in District Plan	Example of Adequately Addressed	Example of Not Adequately Addressed
a. Describe the process for evaluating the plan's overall progress and impact on teaching and learning.	57	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. Schedule for evaluating the effect of plan implementation.	57	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.
c. Describe the process and frequency of communicating evaluation results to tech plan stakeholders.	59	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.

8. EFFECTIVE COLLABORATIVE STRATEGIES WITH ADULT LITERACY PROVIDERS TO MAXIMIZE THE USE OF TECHNOLOGY CRITERION Corresponding EETT Requirement(s): 11 (Appendix D).	Page in District Plan	Example of Adequately Addressed	Example of Not Adequately Addressed
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.)	60	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.
9. EFFECTIVE, RESEARCHED-BASED METHODS, STRATEGIES, AND CRITERIA Corresponding EETT Requirement(s): 4 and 9 (Appendix D).	Page in District Plan	Example of Adequately Addressed	Example of Not Adequately Addressed
a. Summarize the relevant research and describe how it supports the plan's curricular and professional development goals.	61	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.

<p>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.</p>	<p>67</p>	<p>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).</p>	<p>There is no plan to use technology to extend or supplement the district's curriculum offerings.</p>
--	------------------	--	--

Appendix I – Technology Plan Contact Information

Education Technology Plan Review System (ETPRS)

County & District Code: 37-67991

District Web Site: <http://www.cajonvalley.net>

LEA: Cajon Valley Union School District

The following are Cajon Valley Union School District contacts:

1. Dr. Carmen Restrepo, Coordinator of Educational Technology
750 E. Main St., P.O. Box 1007 El Cajon, CA 92022-1007
Phone: (619) 588-3278, Fax: 619-579-4800
E-Mail: restrepo@cajonvalley.net

2. Jonathon Guertin, Chief Technology Office
750 E. Main St., P.O. Box 1007 El Cajon, CA 92022-1007
Phone: (619) 588-5868, Fax: 619-579-4888
E-Mail: Guertinj@cajonvalley.net

3. Mr. Charles Allen, Director of Information Technology Services
750 E. Main St., P.O. Box 1007 El Cajon, CA 92022-1007
Phone: (619) 441-6104, Fax: 619-579-4888
E-Mail: allen@cajonvalley.net

4. Kari Hull, Assistant Superintendent of Educational Services
750 E. Main St., P.O. Box 1007 El Cajon, CA 92022-1007
Phone: 619-588-3086, FAX: 619-579-4800
E-mail: hullk@cajonvalley.net