Educational Technology Plan

2014 - 2017

IMPLEMENTING COMMON CORE THROUGH MOBILE AND PERSONAL DEVICE TECHNOLOGIES



Superintendent Edward Brand

Board of Trustees Jim Cartmill, Bertha Lopez, John McCann, Pearl Quinoñes,

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1. Plan duration

The duration of this plan is three years starting July 1, 2014 and extending to June 30, 2017. It includes benchmarks and a timeline for the completion of each of its objectives, and addresses each of the thirty EETT criteria.

Writers

While numerous stakeholders participated in developing the content of this plan, there were four writers:

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Citations

All citations to external sources are referenced in section 9.a.

2. STAKEHOLDERS

The development of the SUHSD Educational Technology Plan was conducted with the full support of the Superintendent and Governing Board in conjunction with a 1-1 device roll-out that began in the 2012-13 school year. Stakeholder groups were invited to participate in numerous planning and implementation meetings and activities, beginning with the mobile device selection process and continuing into the formulation of a new technology plan that departs from the traditional planning geared toward equipping classrooms to a 21st century plan where every student and teacher will be technology equipped at home and at school.

a. Description of how a variety of stakeholders from within the school district and community-at-large participated in the planning process.

Our technology plan has evolved with the advent of Common Core Standards. In the 2012-13 school year, Sweetwater purchased iPads for all incoming 7th grade students, mobile devices, electronic instructional materials, K-12 friendly learning management systems, and cloud based applications. Over the ensuing six years, Sweetwater will provide a mobile device to each new cohort of incoming 7th grade students until students in grades 7-12 are equipped with a mobile device. This effort has required our District to re-imagine teaching and learning as well as to consider how these devices will produce the best return on investment in terms of academic outcomes. While we are working with our stakeholder groups (below) to determine a path that will equip our students with the skills they will need in a 21st century economy, we are cognizant of the fact that 1-1 computing in public schools is a new frontier for schools all over the country. We do recognize that the rate of change is accelerating and that Districts are faced with many financial and pedagogical challenges as they attempt to keep pace with new devices and smarter, more adaptive applications aimed at helping students, parents, and teachers understand what is happening in the classroom at the precise moment(s) where learning occurs or roadblocks emerge.

In 2011-12, a Technology Planning Committee was formed to discuss everything from device selection to classroom instruction as it relates to implementing a 1-1 mobile device program. Invitations were sent to schools and community members. The "working group" consisted of administrators, teachers, IT technicians, community members, and classified personnel. Several meetings were held through late spring of 2012 with approximately 40-50 people in attendance at any given meeting. In addition to technology planning meetings focused on 1-1 implementation, there were other meetings with additional stakeholders held earlier in the year to review mobile device options. The process was similar to that used when adopting textbooks. Vendors were invited to present mobile device solutions to stakeholders. The stakeholder group ultimately chose Apple's iPad as the mobile device for the District. Once the iPad was chosen, committee and subcommittee work began to address the following needs:

- 1. Critical path planning
- 2. IT infrastructure needs
- 3. Application and learning management system selection

- 4. Financial provisioning for a large-scale infrastructure and wireless device roll-out
- 5. Professional development for teachers and administrators
- 6. Device acquisition, imaging, asset tagging, and deployment

All participants had ample opportunity to contribute to the process through discussion and written suggestions. These suggestions and recommendations were compiled and reviewed for feasibility.

Recommendations from the Technology Planning Committee reflected on previous technology plans (2006-2011 and 2011-2014), along with details and supporting information that satisfy all thirty EETT criteria. However, many of the areas identified in previous plans did not include the large-scale deployment of a mobile device to every student and staff member. The district had previously worked to enhance teaching and learning through the use of technology in more conventional ways i.e. ensuring all schools had adequate student to computer ratios, high speed Internet access, updating classrooms with document cameras, Smart Boards and LCD projectors, etc. The 2011-2014 plan capitalized on learning from the challenges and successes of previous plans and focused on expanding on previous initiatives to ensure adequate reach and penetration to all schools. This may sound unimaginative but given the unprecedented economic hardships experienced by all school Districts over the past several years, it was very bold of our District's stakeholders and Board of Governors to continue to support spending to increase our District's technology infrastructure.

Recommendations for the 2014 - 2017 plan reflect our continued commitment to all schools having state-of-the-art instructional technologies but also propose a new path that will require substantial investment in infrastructure to equip all schools with wireless access points and bandwidth capabilities at all middle and high schools. This infrastructure must anticipate the daily use of more than 40,000 mobile devices by students and teachers as well as the expanded use of more conventional technologies such as desktop computers, network printers, laptops, and netbooks.

Stakeholders involved in all or part of the development of this plan included: classified staff, teachers, administrators and parents. We also conducted teacher and student surveys. Some surveys were internally developed, others were designed and conducted by Apple. Part of what had to be considered (in addition to future thinking) is what initiatives we wanted to continue given the new common core standards and Smarter Balanced assessments, the adoption by our Governing Board of A-G graduation requirements for all students, the adoption by our Governing Board of Integrated Math (beginning in July 2014), and our District's redesign of our own multiple measures assessments into performance tasks for core classes.

Responsibility for Implementation

Because every goal in this plan is aligned with one or more strategies from the district's strategic plan, responsibility for implementation rests primarily with the members of the Superintendent's Cabinet, all of whom were involved in the planning process. The following positions bear most of the burden for actualizing the plan's goals. They all participated in the writing process.

Executive Director of Curriculum and Instruction (Curricular Goals)

Director of Educational Technology (Professional Development Goals)

Director of Information Technology Systems (Infrastructure Goals)

Director of Research and Evaluation (Assessment Goals)

Director of Categorical Programs (Closing achievement gap and implementing District-wide performance initiative Goals)

Chief Financial Officer (Budgets)

3. CURRICULUM

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

The Sweetwater Union High School District - a 7-12 secondary district educating 41,000 regular students and 25,000 adult learners with 10 middle schools, 1 junior high school, 1 7-12 small school, two K-16 charters, 11 high schools, 1 continuation high school, one community day school, 2500 students in various independent study programs, adult education and Career Technical Education programs - is located in the South Bay region of San Diego County. Technology resources for learning and teaching are generally available to any student or teacher throughout the district. The chart below shows the current accessibility conditions.

Type of Access

Conditions

Internet Connectivity

Equalization criteria in the district's Long Range Facilities Management plan require all classrooms to have high speed Internet and VOIP (voice over IP) capability. 100% of district classrooms are connected to the Internet, 98% of classrooms have wireless access (however we do not currently have sufficient density in all schools to manage the number of devices we anticipate bringing online over the next 4 years). Infrastructure upgrades at all high schools are scheduled to begin in July 2014 with a completion date of December 2014.

Student/Computer Ratio

Ratios of computers to students (more than 4 students per computer and ranges from a low of .8 to a high of 7.9.) have remained consistent with those provided in our previous plan. However, the budget crisis in public education over the last several years has resulted in our having computers in many schools that are in need of replacement due to age. There are currently over 11,500 computers in classrooms, libraries, and on mobile carts. We are planning to replace 2200 teacher desktops in the next 6 months with new ones. In addition, our charter schools, middle schools and Jr. High School, have provided every student with an iPad that he/she uses at school and takes home. iPads are turned in at the end of the school year for re-imaging and are given back to returning students when the new school year begins. Alternative Education, Career Technical Education, and Adult Education have newer equipment to support increasing needs for online and digital content and computer based

courses/exams.

| Location of | | | | | |
|-------------------------------|--|--|---|---|--------------------------------|
| Computers | Location | % Classroom | % Lab | % Library | % Other |
| | Sweetwater Union High School District | 63 | 30 | 6 | 1 |
| | Since 2008 acquisitions have excomputers at the high school le | | | • | |
| Additional Computer Access | Most schools have a computer la or after school (or both) for stud | • | | • | r before |
| | Seven public libraries and a han within the district have Internet available to the public. Student A list of free hotspots is provide District's educational technolog | t-connected consisted sections of the consister of the consisted consisted the consisted of | omputenay als | er labs tha o use publ | at are ic wi-fi. |
| Presentation Tools | Middle and high schools have a including: LCD projectors (on ca Apple TVs (at several middle schools assrooms). While many school broadcasts and access to educate being phased out as we implement | arts or mounte hools), Smart s still use tele tional progran | ed), do Boards evisions nming, | cument ca (in moder for daily we see te | meras, rnized |
| Assistive Technologies | Currently, special education or technology for access and indep basis and assessed by the Office Technology department. Device iPads, alternative keyboards, al word processors, and software. participate in the District's 1-1 | pendence are in e of Special Se es provided for ternative mou All special ed | referre rvices these use into ucation | ed on an in Assistive students erfaces, po | dividual include ortable |
| Subject Specific Tools | High school science classrooms database software for recording | | | | |

engage in virtual simulations such as frog dissection.

PE teachers district wide use iPads and SPARK software to record performance results and measure student progress.

Math teachers have access to classroom sets of standard and graphing calculators. Middle-schoolers have access to their math textbooks via their iPads.

English Language Arts teachers in middle schools use Accelerated Reader daily for all reading levels - remedial to college. Read 180 is another reading and literacy tutorial program available to all the middle schools. Achieve 3000 is used to improve critical thinking and writing skills. Rhetorical readers are used in conjunction with an annotation App called Notability to assist students with comprehension and analysis of high level informational text.

California High School Exit Exam (CAHSEE) tutorials are available to all students through Shmoop. In the past we have used Measuring Up and Revolution as CAHSEE tutorial tools. Shmoop is available to all students at home and at school.

Project Lead the Way is a middle and high school STEM CTE program that provides students with pathway courses in Engineering and Science. (More than 12 of our middle and high schools offer at least one pathway)

Audio/Video production applications and hardware are in use at most high schools.

Research Tools

All libraries provide student access to an online catalog of their resources.

All students and teachers have access to two research databases (ProQuest, SIRS) and a world cultures database (Culturegrams) both at school and at home.

In addition, all libraries offer a host of online resources and tools including:

NoodleTools

Citation information (NoodleBib/ Citation Maker, etc.)

Creative Commons/ Flickr

Links to news and media outlets (magazines/ newspapers/ television (local and national)/ international news/ online news sources

Links to reading and literacy-related sites

e-Book collections

Data Director is used for longitudinal data as well as for uploading scores from quarterly and end of course exams. We anticipate replacing Data Director with a tool more linked to our SIS and learning management systems.

Synchronous Meetings

The Educational Technology department uses Adobe Connect for synchronous meetings, tech support, and teacher training. Adobe Connect is a web-based conferencing tool that allows users to share screens, documents, and presentations. Connect meetings can be recorded for later use. Connect users can text during meetings, use VOIP for speaking, or connect via telephone.

Jupiter Grades

All students 7-12, teachers and families have access to Jupiter Grades online grade book. Jupiter Grades provides stakeholders with immediate access to important information about school performance. Counselors and support staff also use Jupiter Grades for student monitoring. Schools can communicate messages about important events and other calendar items via Jupiter Grades.

Courseware

Courseware (Apex, Shmoop, and Grad Point) are available to students in grades 9-12 for credit recovery and school acceleration. Courseware was piloted in Alternative Education during the 2012-13 school year for mathematics. Currently, nine courses have been approved for use by schools with additional courses under review. Courseware is also being considered by Sweetwater's adult education programs.

Learning Management System Sweetwater adopted Canvas (by Instructure) as its learning management system for students in grades 7-8 (2012-14). Canvas will be offered to all teachers and students in the 2014-15 school year. While there are some overlapping features between Canvas and Jupiter Grades, Canvas is a fully integrated learning management system that allows students and teachers to extend learning beyond the classroom. Canvas is a next generation learning management system aimed at providing all stakeholders with dashboard tools, data warehousing and assessment building features, and robust synchronous and asynchronous collaboration tools.

iPads

In 2012-13, all incoming 7th grade students received iPads. iPads are assigned to students for the entirety of the school year. Students are permitted to take them home. In 2013-14, all incoming 7th grade students also received iPads. The intent is to provide an iPad or personal device for every student over the next four years until all students in SUHSD grades 7-12 have devices. Students in our K-16 STEAM Charter school (Steven Hawking Charter) also have iPads for use at school in grades K-3.

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

Teachers' Use of Technology

In 2012-14 (two school years), all middle school teachers received iPads for use in the classroom. Four full days of training in subject specific areas were provided. Special education teachers and school librarians were also included in the training. Training continues to be a priority. In addition to having an "embedded" trainer to work with teachers in the classroom, 20 teachers each year for the next four years will be certified through Apple's Vanguard program called Apple Institutes. Teachers will have five full days of training, receive 20 hours each of observation in the classroom, and receive certification that will permit them to train teachers anywhere in the country with Apple's materials and credentials as Apple certified.

Middle school teachers (while at various stages of application from substitution to redefinition) are using iPads for tasks such as annotating text, checking for understanding, in-class presentations, creating digital content, and researching on the Internet. In addition, iPads are being used for local measures such as end of course exams as well as the new performance tasks aligned to the common core. Many teachers are powerful technology users who use technology for peer editing, student-led presentations, video production, and "flipped" learning.

Students are using iPads daily to create movies, post work, give presentations, review learning, and access resources to complete assignments. All technology-enhanced assignments align with state and district curriculum standards. In 2014-15, all high school teachers will receive iPads for use in the classroom. While only 9th grade students will have iPads for daily use in 2014-15, we believe giving all teachers iPads will accelerate our efforts to ensure all teachers have the skills and tools they need to infuse technology into their subject areas.

A recent teacher survey (of middle school teachers) indicates that teachers have the following views of using iPads in a 1-1 classroom program:

- Teachers see iPads as providing students with greater access to information.
- •Teachers see iPads and Canvas (learning management system) as providing better communication.
- Teachers do not report a substantially higher level of student engagement.

iPad limiting factors (based on teacher input) are:

- •Management of time on task and student distraction
- Network issues that interrupt wireless access
- •Students not bringing iPads to class

45% of teachers said they felt they were pretty good or expert users of iPads in the classroom. Only 9% said they had no idea how to use iPads.

58% of middle school teachers use a presentation technology to present a lesson. 24% of teachers seldom use a presentation technology to present a lesson.

78% of teachers say that having an iPad is having a positive or somewhat positive impact on their teaching. 12% of teachers state that having an iPad is not having a positive impact on their teaching.

62% of teachers say that having an iPad is having a positive or somewhat positive impact on student learning. 13% of teachers state that having an iPad is not having a positive impact on student learning.

We asked about apps and digital textbooks that support digital workflow (Canvas, Notability, pdf-texts):

- •Teachers are using Canvas daily or 1-2 times a week
- Digital textbook use is not high but this could be because not all textbooks are available on the iPad. We need to ask more specific questions of math and English teachers.
- •Notability use (for annotation and written work) is high.

We are conducting a lengthier survey of high school teachers to measure use and attitudes about technology in light of the shift toward 1-1. Since 2012, there have been efforts to encourage teachers to use technology - in part by trying to identify barriers such as slow network speeds, user interfaces that are not intuitive or friendly, cost-limitations that prevent all users from having access, and more flexible approaches to professional development that allow for teachers to get immediate assistance via online meeting spaces like Adobe Connect. In addition, we have continued building capacity in the areas of:

- significant and sustained technology professional development efforts
- a strategic focus on the use of data to drive instruction data that is often delivered and analyzed through online systems.
- a move toward standardization of hardware district-wide, and a reorganization of technical support that has made computer equipment more reliable and thus, more likely to be a teacher's tool of choice.
- Upgrades to the district's bandwidth and redundancy of wireless access points to manage increased traffic.

100% of teachers in middle and high schools record attendance daily through the district's web-based student information system (Power School). These same teachers must submit progress report, semester, and final grades through using Jupiter Grades. 100% of teachers are using Jupiter Grades and Power School for grades and attendance.

Students' Use of Technology

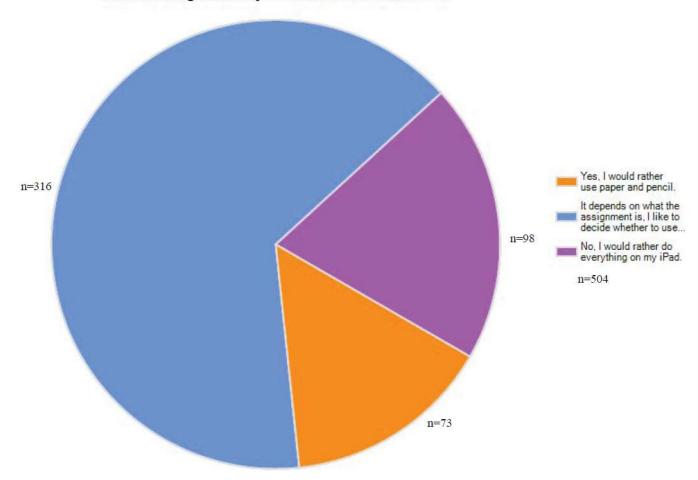
Students in each middle school (including our 1 junior high where ninth graders have iPads), and our STEAM Charter School are using technology daily with iPads. The type of use varies from classroom to classroom but generally, iPads are used by students for: conducting Internet research, annotation of expository text, skill review and remediation (i.e. flashcards), creating presentations, completing classroom assignments, and homework.

A recent student survey (middle school students only) shows that:

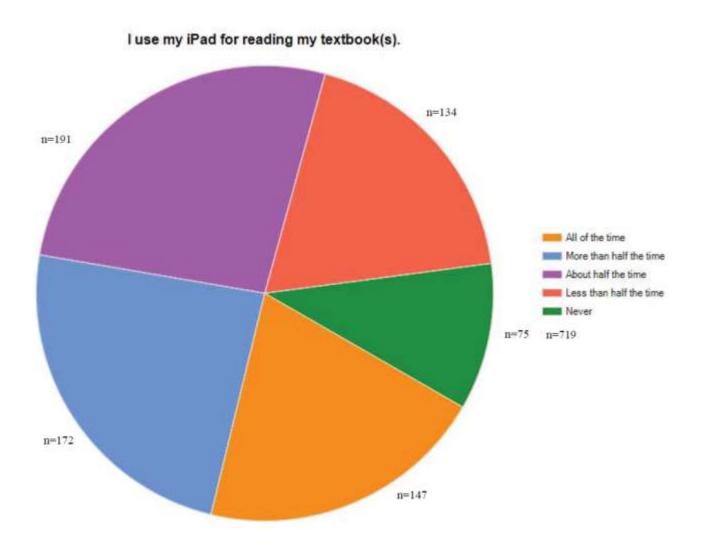
- 92% of students said they thought the iPad was having a positive effect on their learning
- 85% of students said they thought the iPad has helped them be better learners
- 89% of students said they used Canvas to upload work for assignments
- 68% of students said they used a calendar and/or organizer on their iPad to help them remember due dates and other important things
- 88% of students said they used the camera on their iPad to take pictures of teacher whiteboards, notes in class, or other things the teacher puts in the classroom to help them learn
- 93% of students said they had Internet access at home
- 95% of students said they used their iPad to access Internet/online resources for school work and/or homework
- 45% of students said they used their iPad for flash card study
- 86% of students said they used their iPad for taking notes in at least 1 class

When asked whether students prefer to do work on paper over working on an iPad with an app, students responded as follows:

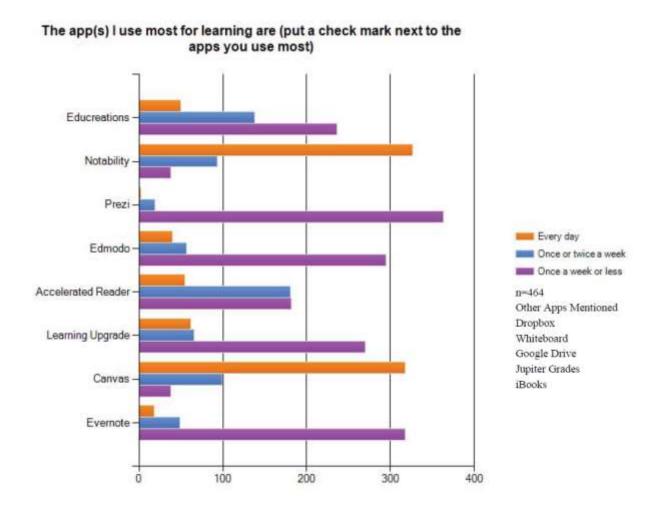
I prefer to do my work on a paper worksheet over doing work on an iPad using Notability or another annotation tool.



When asked whether students used iPads for reading textbooks, students responded as follows:



Students reported their app use as follows:



At the high schools, students still use technology for word processing, Internet research, credit recovery (in some cases), access to online tutorials and streaming content (i.e. Shmoop, Safari Montage), A high percentage of teachers at the high schools require their students to use technology to create reports or projects at various intervals and the same number require the use of the Internet for research.

To make technology more accessible to all of our students, we have provided Google Mail and Google Drive accounts to all students. This provides students with 15GB of cloud storage, use of Google productivity apps, and a personal g-mail account managed by the District.

While we haven't collected new metrics since our last technology plan regarding knowledge among teachers about state and federal laws on information security and District acceptable use policies regarding public school uses of technology, there is more general knowledge among teachers about uses and misuses of social networks like Facebook, cyber-bullying, and the need for students to be

more informed consumers in the area(s) of identity protection, intellectual property rights, and Internet "netiquette". To that end, we are developing a series of lessons on Digital Citizenship to cover the following topics:



Administrators have also received training from Human Resources on topics related to cyber-bullying and sexual harassment. While this training did not focus exclusively on online issues, scenarios presented during training covered topics like how to advise teachers about their digital lives and possible professional impacts of sharing personal photos and other information in social spaces like Facebook.

As teachers get more experience using Canvas and Google Drive, we expect they will take advantage of the tools Canvas provides that allow students to problem-solve, analyze data, and create graphic presentations. The use of probeware, graphing calculators, and database software is common in science and math classes. As more "tablet" friendly products emerge, we believe teachers will begin to integrate those products and their uses in the classroom - especially in math and science classes.

All school libraries have online catalogs that make their collection readily accessible and searchable from all classrooms. All students and teachers have access to two reference databases (ProQuest, SIRS), and a world cultures database (CultureGrams). These robust resources offer a virtual reference library that is available to every student and teacher both at school and at home.

Online resources available through textbook adoptions provide valuable resources to support classroom instruction.

Targeted students have access to online tutorials including Read 180, Shmoop, Apex, Grad Point, and ProQuest.

Assistive technologies enable students with assessed needs to perform reading and writing tasks using an alternative method (such as auditory feedback, speech input, screen readers, scanning and onscreen keyboards, etc.). iPads are also being used for students requiring assistive technologies.

Current district policy on the use of technology in the classroom allows teachers to integrate technology according to their own skill level and the availability of technology resources at their site or in their classroom.

c. Summary of the district's curricular goals that are supported by this plan

The Curriculum section of this Education Technology Plan focuses on the role of technology resources to implement the common core standards, enhance the delivery of curriculum content aligned to those standards, support the assessment of student achievement (both standardized and district created), and increase students' skills in the areas of communication, collaboration, creativity, and critical thinking.

Sweetwater Union High School District's Strategic Plan clearly outlines the district's curriculum goals and activities to be implemented. The very first strategy indicates the importance of a strong curriculum in our district.

Strategy One

We will put in place diverse curriculum and learning experiences that meet the needs and aspirations of each student.

This strategy is supported by action steps that target 100% of the students in our district as successful graduates who matriculate to post-secondary education and/or the career of their choice. Below are the strategically aligned curricular action steps for Strategy One that rely on the use of technology or require the acquisition of technology skills.

- 1. Develop and assess a coherent and aligned secondary curriculum that prepares all students for post-secondary education and/or the career of their choice, in cooperation with elementary and post-secondary institutions.
- 2. Explicitly teach and assess, across the curriculum:
 - a. Academic Language Development ALD
 - b. Setting of Learning Targets
 - c. Checking for Understanding
- 3. Connect all students to an expanded set of career pathways and flexible career pathway opportunities.
- 4. Continue and enhance the use of our district-wide data management system that informs and guides our curriculum and classroom instructional decisions.
- 5. Expand the use of our district's newly adopted learning management system to expand access to content outside of the classroom as well as promote the use of technology to increase students' skills in the areas of communication, collaboration, creativity, and critical thinking.
- 5. Increase student engagement in rigorous, standards-based learning activities by providing relevant, real world classroom experiences in the core curriculum.

6. Implement and monitor a systematic approach to mastery learning of content standards and use technology to differentiate curriculum and classroom instruction based on student needs.

All of this technology plan's curricular goals align with one or more of the strategies from the district's strategic plan. All district course descriptions are completely aligned with California state frameworks.

The integration of scientifically researched, best-practice teaching and learning technologies enables students and teachers to learn in ways not available without these resources. To maximize the potential of these resources, students require technology proficiencies as defined in the National Education Technology Standards for Students (NETS-S). The introduction, practice, and mastery of these standards will be woven throughout the grade levels and across the disciplines.

In previous plans, technology has been infused as a required part of the core curriculum. In this plan, our district is focusing on the implementation of a district wide 1-1 roll-out where every student will have and use an iPad (or like device) during the school day and at home. In other words, we are looking at equipping each child with the technology he/she needs to be successful in school. This constitutes another paradigm shift for teachers who will have to rethink the way they deliver instruction as well as redefine how they hold students accountable for what they know. This paradigm shift is taking place at the same time our district is moving to the common core. Consequently, the district's professional development focuses on the common core and technology integration/implementation. For example, cohort groups have worked together this year to develop performance tasks that will ask students to demonstrate what they know. In the middle schools where iPads are deployed to each child, these performance tasks have been completed entirely online with students submitting their completed assessments through our learning management system. District support teachers (DWAST) have made resources for all content areas available to cohort groups and all district teachers via the same learning management system. For many teachers, the move to a paperless system is challenging. However, we have teacher and administrator leaders at all sites who are working with all teachers to help them feel more confident and prepared. Professional development, infrastructure, and budget will be addressed in the corresponding sections of this plan.

Curricular strategy for integrating technology across the core curriculum

- 1. The Curriculum and Educational Technology Departments have worked collaboratively to design new professional development goals that incorporate training for the common core and use(s) of technology in the classroom for instruction and assessment. In addition, the following are being done:
 - a. Integration of common core standards with technology resources through the use of the district's new learning management system (Canvas) that addresses CCTC Standard 9 and 16, and that improves teaching and learning.
 - b. continued use and design of a working matrix in which specific technology skills and knowledge students need in every subject area in order to be college and career ready. Information literacy is an essential component along with subject specific skills and knowledge appropriate to subject content.

- 2. Through the deployment of our learning management system in conjunction with Google Drive, the Educational Technology Department is providing a powerful curriculum management and development solution that connects teachers to best practices, instructional strategies, lesson plans, and a broad spectrum of resources to enhance teaching and learning. From one central portal, educators tap into a wealth of web-based curricula, and collaborate in the broader district-wide learning community. The development and sharing of technology-enhanced activities and strategies becomes possible, district wide, through this platform. Canvas and Google Drive are also iPad (and tablet) friendly so productivity and collaboration are not limited to desktop technologies. Canvas gives all teachers the technology resources necessary for developing, implementing, and assessing daily lessons that meet the criteria established in the rubric and matrix above (1.a, 1.b).
- 3. Cohorts of teachers (by subject area) are using Canvas and Google Drive to develop performance tasks, access materials and curriculum aligned to the common core as well as share those materials across schools. These efforts are being supported by the DWAST (District Wide Academic Support Team) during day-long professional development meetings taking place throughout the school year. Cohort teams in conjunction with the DWAST are also involved in quarterly vertical alignment meetings to ensure subject area rigor and relevance in all grades.
- 4. In the 2014-15 school year, Canvas will scale to include all teachers and students grades 7-12. This will truly allow teachers in every school to collaborate and create rich learning opportunities for students in every school. It will also address the problem many large districts face of distributing best practices across the entire system so that all teachers have the means to grow as professionals.

Canvas provides a pathway to both higher implementation rates, and teacher skills and confidence. The scope of technology integration is defined by CCTC Standards 9 and 16. The sequence of skills transfer to students is defined in the matrix and includes all skills identified in ISTE NETS-S. Selection of skills to be transferred is done at a global level beginning with cohort work and moving through school based PLCs (Professional Learning Communities).

In sections 3d and 3e, we define objectives and benchmarks for implementation of this strategy as they relate to the specific EETT criteria addressed in those sections. In sections 3f and 3g we introduce a different strategy for providing continual reinforcement to students for the legal, ethical and safe use of electronic resources. Sections 3h through 3j contain discrete objectives that are explained in introductory paragraphs.

We also include objectives 3d.2.1 and 3d.2.2 that explicitly ensure the monitoring of technology integration into our strategies.

Curricular strategy for using electronic learning resources

Electronic learning resources fall into three broad categories: 1) supplemental curriculum 2) Internet-based courseware 3) Internet-based productivity applications. The district recognizes that students need 24/7 access to all of the above and is invested in ensuring that this access extends to every student over the next 3 years via our 1-1 roll-out.

The use of Jupiter Grades allows students and parents to receive immediate feedback from teachers about student performance. Canvas and Google Drive will create work flow efficiencies for teachers that will (with time and increased expertise) give teachers much needed time to look at student work and provide feedback/support long before summative assessments point to struggles students are having.

Curricular strategy for measuring academic performance and progress

In 2012-13 Sweetwater participated in the Smarter Balanced pilots with nearly all middle and high schools volunteering to be involved. The SBAC readiness tool has also been submitted by our Director of Research and Evaluation.

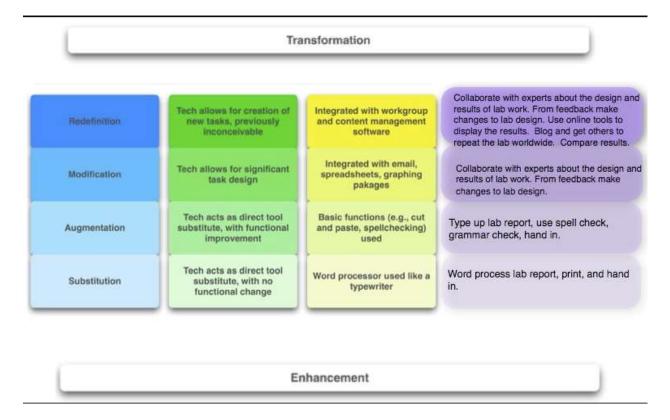
For 2013-14 testing, we will test in computer labs at all middle and high schools. We have updated computer lab Internet browsers as well as installed the SBAC secure browser on all computers that will be used for SBAC testing this spring.

We have also identified two middle schools that will participate in the SBAC assessment using iPads. We have purchased keyboards in order to comply with the SBAC requirements. There are some technical problems that at the time of this writing, we have not resolved, namely - we use a filtering proxy server to ensure student iPads are CIPA compliant whether at school or home. SBAC has provided information to districts that caching proxy servers are not compatible with the SBAC test. We asked for clarification about proxy servers that filter but have not received direction. We have installed the secure browser on some test iPads configured with and without proxy filtering and have not had success submitting the test once a student has completed the assessment.

d. Goals, measurable objectives, annual benchmarks, and an implementation plan for using technology to improve teaching and learning by supporting the district's curricular goals.

The district's course descriptions define a rigorous academic curriculum that aligns with state standards. A major focus of this plan is to include technology-enhanced strategies and activities as required components of the existing curriculum for core subjects.

As the plan rolls out, cohort teacher leaders as well as DWAST teachers, supplied with the appropriate technologies, will design, implement, and evaluate technology-enhanced strategies and activities within the context of the specific curriculum they teach. We are using the SAMR Model (below) to help teachers and administrators understand and better integrate technology into their teaching and learning. This model was created by Dr. Robin Puentudura with the explicit aim of helping teachers in designing, developing and integrating digital media to increase students overall academic achievements. The four levels of this model are: Substitution, augmentation, modification and redefinition. The image below explains (briefly) these four levels.



As teachers develop best practices around "flipped instruction" and using technology to transform instruction (via the SAMR) model, practices will be shared throughout the district via Canvas, Google Drive, Safari Montage (video streaming).

Goal 1: We will continue to advance our objective of providing every student with an iPad (or like device) adding new devices to each incoming class of 7th graders until all students in grades 7-12 have devices. (We are in year two of a six-year implementation). iPads will be supported with a robust learning management system, productivity and creativity apps/tools.

| Curricular Strategy | All students in grades 7-12 will be digital learners, able to use online tools and resources to support their academic goals as well as to demonstrate mastery of standards. |
|------------------------|---|
| Objective 3d.1.1 | By June 2017, all 7-12 th grade students will access curricula, teacher created content, district assessments, along with individual performance data via Canvas (LMS) and Google Drive. |
| Leadership | Director of Educational Technology |
| Funding | General Fund/Common Core |
| Benchmarks | |
| 3d.1.1.a | By June 2014, all 7-9 th grade students will access curricula, teacher created content, district |

| | assessments, along with individual performance data via Canvas (LMS) and Google Drive. | | | | | |
|-------------------|--|---|--|--|--|--|
| 3d.1.1.b | | By June 2015, all 7-10 th grade students will access curricula, teacher created content, district assessments, along with individual performance data via Canvas (LMS) and Google Drive. | | | | |
| 3d.1.1.c | By June 2016, all 7-11 th grade assessments, along with indiv | | | | | |
| Implementation ar | nd monitoring for Benchmark | s 3d.1.1 a-c | | | | |
| Benchmark | Implementation Plan and Activities | Responsible Person | Timeline | Monitoring and Evaluation Activities | | |
| 3d.1.1.a-c | DWAST, Cohort Leaders, and teacher will build assignments, assessments, as well as use Canvas and Google Drive communication and productivity tools to provide relevant opportunities for students to access curricula, teacher created content, district assessments, along with individual performance data via Canvas (LMS) and Google Drive. | Director of Educational Technology/ DWAST | Annually starting July 2014 - ongoing | DWAST and Cohort meetings will include the use of Canvas and Google Drive District wide assessments will be delivered through Canvas DWAST will continue to provide common core and assessment resources for teachers in Canvas. | | |
| 3d.1.1.a-c | Students will take district wide assessments including end of course and performance tasks using Canvas and Google Drive. | Director of Educational Technology/ Teachers/ Principals | Annually starting July 2014 - ongoing | Teacher/Student surveys Walk-through observations form data | | |

| Curricular Strategy | Provide resources available via the Curriculum Website and Canvas assisting teachers with deepening their understanding of the common core and NGSS standards for science. |
|------------------------|---|
| Objective 3d.1.2 | By June of 2017, All core courses, electives courses, and career technical education courses (ROP) will have resources available via the Curriculum Website and Canvas assisting teachers with deepening their understanding of the common core and NGSS standards for science. |
| Leadership | Executive Director of Curriculum |
| Funding | General Fund / Curriculum |
| Benchmarks | |
| 3d.1.2.a | By June of 2015, English and Math courses will have resources available via the Curriculum Website and Canvas assisting teachers with deepening their understanding of the common core. |

following year if necessary so that different core

courses can be updated.

| 3d.1.2.b | Curriculum Website and Can | By June of 2016, science and social science courses will have resources available via the Curriculum Website and Canvas assisting teachers with deepening their understanding of the common core and NGSS standards for science. | | | | | |
|----------------|--|--|--|--|--|--|--|
| 3d.1.2.c | available via the Curriculum \ | By June of 2017, Career Technical Education (ROP) and elective courses will have resources available via the Curriculum Website and Canvas assisting teachers with deepening their understanding of the common core. | | | | | |
| Implementation | and monitoring for Benchmark | ks 3d.1.2.a-c | | | | | |
| Benchmark | Implementation Plan and Activities | Responsible Person | Timeline | Monitoring and Evaluation Activities | | | |
| 3d.1.2.a-c | Teachers from each discipline are chosen at the sites to participate in the cohort Teams. | Executive Director of Curriculum | At the beginning of each school year. (July) | Principals submit list of Cohort Team teachers to the Executive Director of Curriculum. | | | |
| 3d.1.2.a-c | Cohort Team teachers use Canvas to create performance tasks aligned to the common core as well as rubrics for scoring work | Executive Director of Curriculum | Annually, July - June | Agendized item at Quarterly Cohort meetings. | | | |
| 3d.1.2.a-c | Cohort Teams use Canvas to create content in all courses aligned to common core standards. | Executive Director of Curriculum | Annually, July - June | Progress checked at regularly scheduled Cohort meetings. | | | |
| 3d.1.2.a-c | Curriculum writers update courses and course resources as well as suggest ways to deliver content using technologybased tools like Canvas. | Executive Director of Curriculum | On-going as determined by the Executive Director of Curriculum and Instruction | Updated courses are reported and posted after approval by the Executive Director of Curriculum and Instruction | | | |
| 3d.1.2.a-c | New CIA Team teachers are selected for the following year if necessary | Executive Director of Curriculum | June 2014, 2015, 2016 | Principals submit list of CIA Team participants to Executive Director of Curriculum. | | | |

| Curricular Strategy | Core-subject teachers implement lessons using Canvas and Google Drive to expand access to content, support and productivity tools. |
|---------------------|---|
| Objective | By June 2017, 100% of Core-subject teachers in grades 7-11 will use Canvas and Google Drive in conjunction with iPads to support their instruction. |

| 3d.1.3 | | | | |
|----------------------|--|----------------------------------|------------------|---|
| Leadership | Executive Director of Curri | culum | | |
| Funding | General Fund/Curriculum | | | |
| Benchmarks | | | | |
| 3d.1.3.a | By June 2015, 60% of Cor conjunction with iPads to s | • | | as and Google Drive in |
| 3d.1.3.b | By June 2016, 80% of Core-subject teachers in grades 7-11 will use Canvas and Google Drive in conjunction with iPads to support their instruction. | | | |
| Implementation and n | nonitoring for Benchmark | s 3d.1.3 a-d | | |
| Benchmark | Implementation Plan and Activities | Responsible Person | Timeline | Monitoring and Evaluation Activities |
| 3d.1.3.a - d | Review teacher implementation statistics | Executive Director of Curriculum | Annually in July | Teacher surveys, walk-through observation data, Canvas usage reports |

Goal 2: In order to better ensure progress in meeting curriculum goals and objective, establish a standards-based monitoring system focused on continuous growth for all employees.

| Monitoring Strategy | Develop and implement walk-through observations forms and student performance dashboards (online) that provide teachers with immediate feedback as well as resources for improving instruction in all content areas. Tools will have built-in communication and collaboration components such as e-mail, file sharing, photo sharing, video logging, etc. | | | | |
|------------------------|---|---------------------------|---------------------|--|--|
| Leadership | Lead Principals, Princip | als, Assistant Principals | | | |
| Funding | Title II/Professional Dev | elopment | | | |
| Action Plan for Monite | oring Technology Integr | ration | | | |
| | Implementation Plan and Activities Person Timeline Monitoring and Evaluation Activities | | | | |
| 3d.2.1 | Principals will use iPads during daily classroom visits to | Principals | July 2014-June 2015 | Data collected and shared from walk- through visits to | |

| | communicate with teachers about quality instruction. | | | Student Survey tools measuring classroom experiences. |
|--------|--|--|--|--|
| 3d.2.2 | Develop and use teacher dashboard tools that integrate performance data, professional development goals, teacher resources, and online videosharing. | Director of Educational Technology | July 2014 through June 2017 (duration of this plan). | teacher surveys, dashboard reports, and usage data |

e. Goals and specific implementation plan detailing how and when students will acquire technology and information literacy skills needed to succeed in the classroom and the workplace.

Goal 1: Integrate technology activities that increase students' technology and information literacy skills as required components of the curriculum.

| Curricular Strategy | Teach tech and information literacy, cyberethics, and cybersafety as part of middle school curriculum at the 7 th grade. | | | | | |
|---|--|---|----------|--|--|--|
| Objective 3e.1.1 | _ · | By June 2017, all students in grade 7 will use Canvas to complete a digital citizenship course that includes nine modules, including tech and information literacy, cyberethics, and cybersafety. | | | | |
| Leadership | Director of Educational | Technology | | | | |
| Funding | General Fund | | | | | |
| Benchmarks | | | | | | |
| 3e.1.1.a | | By July 2014, all nine modules will be completed and ready for students/teachers to use. This includes teachers guides and digital badges that recognize student proficiency. | | | | |
| 3e.1.1.b | By July 2015, all students in grade 7 will use Canvas to complete a digital citizenship course that includes nine modules, including tech and information literacy, cyberethics, and cybersafety. In successive years, each incoming group of 7th grade students will complete the digital citizenship course. | | | | | |
| Implementation and monitoring for Benchmarks 3e.1.1 a-b | | | | | | |
| Benchmark | Implementation Plan and Activities | Responsible Person | Timeline | Monitoring and Evaluation Activities | | |

| 3e.1.1.a-b | Curriculum and Instruction will evaluate and approve the digital citizenship coursework for use with incoming 7th grade students. | Director of Educational Technology | April 2014 | Course will be reviewed for content, rigor, and relevance based on clearly defined outcomes .ie. students will be able to |
|------------|--|--|---------------------|---|
| 3e.1.1.a-b | Middle school teachers will review the course modules and meet to discuss implementation strategies - how will we fit the material in with students' existing schedules and course requirements. | Director of Educational Technology | April - May 2014 | Pilot course modules and content during summer school. Also offer course to incoming 7th graders as an online course during summer. |
| 3e.1.1.a-b | Provide summer training to teachers. | Director of Educational Technology | June-July 2014 | Training will be online MOOC for teachers who wish to participate. |
| 3e.1.1.a-b | Collect teacher feedback and revise as necessary | Director of Educational Technology | July 2014-June 2015 | Teacher feedback and course performance data. |

f. Goals and an implementation plan that describe how the district will address the appropriate and ethical use of information technology in the classroom so that students can distinguish lawful from unlawful uses of copyrighted works.

The Sweetwater registration packet contains the district's Acceptable Use Policy (AUP) which forbids inappropriate or unlawful use of the Internet, and imposes consequences for doing so. Each year, both students and parents sign a Student Consent and Waiver for Internet Use indicating their agreement to abide by the terms of the AUP. These forms are kept on file by the registrar. This practice will remain in place for the life of this Educational Technology Plan.

In addition, the iPad Manual of Procedure contains documents for parents and students regarding Acceptable Use. These documents are furnished when students receive iPads (annually). Parent/student signatures are required. Policies regarding acceptable use are also posted on the District website.

Our iPad 1-1 device initiative has brought issues around appropriate and ethical use to the forefront for the entire organization. Issues have resulted in organization-wide conversations around test security, appropriate uses of social networks, and student integrity with respect to "ownership of work", password protection, personal vs school uses for district-issued devices, and the development of a culture where students believe teachers know as much or more than they do.

There are several modules in the Digital Citizenship course designed to address these issues with students. More needs to be done around teacher education. For example, teachers need to protect their District passwords, be thoughtful about sharing work-arounds with students meant to bypass filtering or copyright protections, and model appropriate use with explicit instruction. It's not enough to tell students not to cheat or copy someone else's work. We have to provide them with examples of how to properly respect intellectual property, understand how to distinguish between proprietary materials and creative commons content, etc.

While we are targeting incoming 7th grade students entering our District with our full Digital Citizenship course, we need to distribute information from the course in ways that inform students in every grade about the following topics:

- browsers and e-mail
- social networks
- privacy and security
- Safety and Ethics, Online Community, Culture and Citizenship
- How to Evaluate a Website
- Research and Key Words
- Using and Citing Online Sources
- Copyright, Creative Commons, and Public Domain
- Digital Health and Wellness

Messaging to students about these issues needs to be ubiquitous and engaging so that students see Digital Citizenship as part of their academic life - similar to the way they have come to understand the importance of creating inclusive campuses or the need to eat healthy foods and exercise regularly.

Goal 1: (ISTE NETS-S 5) Students understand human, cultural, and societal issues related to technology. They advocate and practice safe, legal and ethical behavior.

| Curricular Strategy 3f.1.1 | All students receive continuous reinforcement regarding the legal and ethical use of electronic resources. | | | | | |
|-------------------------------|--|--|---------------------|--|--|--|
| Leadership | Director of Educational | Director of Educational Technology | | | | |
| Funding | General Fund | General Fund | | | | |
| Implementation and n | nonitoring for 3f.1.1 | | | | | |
| | Implementation Plan and Activities Responsible Person Timeline Monitoring and Evaluation Activities | | | | | |
| 3f.1.1.a | Create content in various forms (video, comic strips, and public service announcements) on the above topics. | Director of Educational Technology | July 2014-June 2017 | Student survey feedback. Data on page views and other stats related how often students access content meant | | |

| | | | | to inform them. |
|----------|---|--|---------------------|--|
| 3f.1.1.b | Develop opportunities for students to create, present and publish their own projects on these topics. | Director of Educational Technology | July 2014-June 2017 | Data on page views and other stats related how often students access content meant to inform them. |
| 3f.1.1.c | Create and advertise these opportunities through all librarians and VAPA elective teachers. | Director of Educational Technology | July 2014-June 2017 | Data on page views and other stats related how often students access content meant to inform them. |

g. Goals and implementation plan for how the district will address Internet safety, including how to protect online privacy and avoid online predators

All access to the Internet from any district computer passes through a filter that is compliant with the Children's Internet Protection Act of 2000. This practice will remain in place for the life of this Educational Technology Plan.

All district computers include virus protection software that searches the hard drive and downloaded files for spyware that could compromise personal information. The district's email system has its own filter that protects users from viruses and malware.

All enterprise data systems adhere to industry standards for maintaining the security of student information.

All iPads access the Internet via a proxy server that applies the same student Internet filtering policies at school and at home.

Internet safety is one of the most serious issues facing today's youth, and the most dangerous aspects of Internet use cannot be resolved with software. As with computer ethics and copyright, keeping students sensitized and aware requires continuous reinforcement.

Messaging to students about these issues needs to be ubiquitous and engaging so that students see Digital Citizenship as part of their academic life - similar to the way they have come to understand the importance of creating inclusive campuses or the need to eat healthy foods and exercise regularly.

Goal 1: (ISTE NETS-S 5) Students understand human, cultural, and societal issues related to technology. They advocate and practice safe, legal and ethical behavior.

| Curricular Strategy 3g.1.1 | All students receive continuous reinforcement of best practices for Internet safety. |
|-------------------------------|--|
| Leadership | Director of Educational Technology |

| Funding | General Fund | | | | | | |
|----------------------|--|--|----------------------|---|--|--|--|
| Implementation and I | Implementation and monitoring for 3g.1 | | | | | | |
| | Implementation Plan and Activities | Responsible Person | Timeline | Monitoring and Evaluation Activities | | | |
| 3g.1.1.a | See 3f1.1a. | Director of Educational Technology | July 2014 ongoing | Data on page views and other stats related what content/websites students access. Identify vulnerabilities in filtering and work with IT to prevent those vulnerabilities from being exploited. | | | |
| 3g.1.1.b | See 3g.1.1b. | Director of Educational Technology | July 2014 ongoing | Use metrics collected from Internet monitoring to evaluate success and determine next steps related to Internet safety. | | | |
| 3g.1.1.c | Disseminate handouts to all libraries and computer labs. Add links to school site web pages. | Director of Educational Technology | July 2014 ongoing | System(s) in place | | | |
| 3g.1.1.d | Review with teachers | Principals, Lead Teachers | July annually | System(s) in place | | | |

h. Policies that ensure equitable access for all students

Equitable access for all students results from 1) ensuring that technology resources are available to all teachers and students (see section 5), and 2) ensuring that all students are engaged by their teachers in activities that increase their ability to use technology in a meaningful way.

Technology integration in core classes

The number of students in the Sweetwater District who will receive a District provided personal device (iPad/like tablet) grows each year by approximately 7,000 students. By the 2017-18 school year, all students in the District are slated to have iPads/like devices). The major components of our curricular strategy for ensuring equitable access are defined in sections 3d through 3g. We include technology integration activities and strategies into core-subject course descriptions, and make them a *required* part of the curriculum. As we grow in our use of Canvas (LMS), Google Drive, personal

devices, and apps specific to core content such as math graphing tools, students will not only have access to technology for academic use, but they can use the same technologies to pursue their own interests which we believe will drive them to be more engaged, innovative, and curious. We believe these are the ultimate drivers that connect students to why school is relevant and important.

Assistive Technologies

iPads are perfect tools for meeting many assistive technology needs. The device, along with apps created to help children with communicative disorders or specific learning disabilities, will help ensure that students with disabilities get the tools they need to help them be successful learners despite the limitations they may experience as a result of their handicapping condition.

The district's current "expert" model for identifying and deploying assistive technologies (AT) is being stretched by demand for services. Currently, IEP teams identify candidates for AT and refer them to a two-person district team who evaluates them and matches their physical and cognitive abilities with the most appropriate technological support to assist with access to the classroom curriculum. In recent years, referrals have increased dramatically. Requests for adaptations for students with physical disabilities (orthopedic, deaf, blind) remain fairly constant, but, more and more, IEP teams seek technological solutions for students with learning disabilities. Identified learning disabilities occur at a much higher rate than physical ones, causing a considerable increase in demand for services.

Our solution is to develop and train AT teams at each site that will work together with IEP teams and Student Study Teams to provide AT recommendations quickly and effectively within the context of the local environment. Composed of administrators, counselors, and teachers, these teams will focus on learning disabled students, continuing to refer students for district-level AT evaluation when necessary. Hardware and software resources for AT students will continue to be supported at the district level.

Special education teachers are very aware of all levels of assistive technologies, and use them regularly for classroom instruction. These adaptations are included in student IEPs under "supplementary aides and services" so that the student is ensured access. However, the Technology Assessment Profile confirms that teachers in general education have significantly less awareness of the potential benefits of low tech devices, such as pencil grips and highlighters. Training and exposure may increase many of their students' ability to access their instruction. This is a professional development issue, and is addressed in section 4.

Reading Improvement

The district's Special Education students and English Language Learners comprise approximately one fourth of the district's students and represent a significant percentage of students who score poorly in reading and writing on standardized tests. Sweetwater has scaled up the current implementation of the Read 180 program to address their needs. Read 180 directly addresses individual needs through differentiated instruction, adaptive and instructional software, high-interest literature, and direct instruction in reading, writing, and vocabulary skills. The district also uses Achieve 3000 to improve reading comprehension and writing skills for students' who are at-risk either because they are ELLs or because they are identified as Special Education students. Our target population includes all students who score Below Basic or Far Below Basic on the CST.

Online Classes

Online classes can give students access to curriculum that may not be available in the district. For example, students on accelerated academic schedules may become part of a "minority population" unable to schedule the required advanced classes they need. Other students at all levels, with specific career aspirations, may benefit from elective courses that are not taught in the Sweetwater District or not available at schools that don't have the resources to provide a specific class for a limited number of students. Online classes can solve this problem.

The Sweetwater District has made a concerted effort to provide online classes where appropriate and feasible by reviewing and approving a list of online course providers and defining a policy for when enrollment in an online course is appropriate and a procedure to insure that students are trained on taking an online course. We currently enroll more than 600 students in online courses (taught by our teachers) who need to recover a credit in a core course. We also use Shmoop (an online tutorial program) to assist students with AP, SAT, and other high stakes college entrance exam preparation. Learning Center students have access to both Shmoop and Apex along with legacy products such as Nova Net. However, we are phasing out legacy products in exchange for more relevant and engaging online systems of support and courseware. Information and training for online learning has been shared with counselors and learning center coordinators. Learning Center coordinators have also enrolled in an online certification program (December 2013) through the San Diego County Office of Education. The goal is to have alternative education programs combine synchronous and asynchronous learning tools and platforms (like courseware combined with Adobe Connect meeting spaces for live instruction online) to better serve students who are not able to thrive in more traditional programs offered by comprehensive schools. The district supports enrollment of students for whom online classes provide the best option.

Goal 1: Provide real-world experiences and 21st century work force readiness skills equitably to <u>all</u> students through technology enhanced lessons.

| Curricular Strategy 3h.1.1 | Ensure equitable access for all students to assistive technologies. | | | | |
|-------------------------------|--|---------------------------------|--------------------------|-------------------------------------|--|
| Leadership | Director of Special Serv | ices | | | |
| Funding | General Fund / Special ADA Section 504 AB 602 | | | | |
| Implementation and r | nonitoring for 3h.1.1 | | | | |
| | Implementation Plan and Activities Responsible Person Timeline Monitoring and Evaluation Activities | | | | |
| 3h.1.1.a | Continue the existing district-level Assistive Technology program | Director of Special Services | July 2014 – June 2017 | Assistive technology staffing level | |
| 3h.1.1.b | Develop site-based | Director of Special | July 2014 | List of site team | |

| | Assistive Technology teams. | Services | | members |
|----------|--|--|-------------------|--|
| 3h.1.1.c | Monitor teacher and administrator familiarity with low, mid, and high tech assistive technology solutions. Implement professional development as needed. | Director of Educational Technology / Director of Special Services | July of each year | Collect and review EdTech Profile data. |

| Curricular Strategy 3h.1.2 | Provide access to Acheive 3000 for all students who score FBB or BB in English Language Arts | | | | |
|-------------------------------|---|------------------------|----------|---------------------------------|--|
| Leadership | Director of Curriculum | | | | |
| Funding | General Fund / Curriculu | um | | | |
| Benchmarks | 1 | | | | |
| 3h.1.2.a | By September 2014, 40% of FBB and BB students will be enrolled in Achieve 3000. | | | | |
| 3h.1.2.b | By September 2015, 50% of FBB and BB students will be enrolled in Achieve 3000. | | | | |
| 3h.1.2.c | By September 2016, 60% of FBB and BB students will be enrolled in Achieve 3000. | | | | |
| Implementation and r | nonitoring for Benchma | rks 3h.1.2.a-c | | | |
| Benchmark | Implementation Plan and Activities Responsible Person Timeline Monitoring and Evaluation Activities | | | | |
| 3h.1.2.a-c | Purchase additional Achieve 3000 licenses as needed | Director of Curriculum | Annually | Verify availability of licenses | |

| Curricular Strategy 3h.1.3 | Provide online courses to increase students' access to a variety of curriculum content. | |
|--|---|--|
| Leadership | Executive Director of Curriculum | |
| Funding | General Fund / Curriculum | |
| Implementation and monitoring for 3h.1.3 | | |

| Benchmark | Implementation Plan and Activities | Responsible Person | Timeline | Monitoring and Evaluation Activities |
|-----------|---|--|----------------------|--|
| 3h.1.3.a | Enroll students in online classes as needed. | Counselors, Director of Alternative Education, Principals and learning center coordinators | July 2014 ongoing | Number of enrollments in online classes. Number of credits earned in online classes. |
| 3h.1.3.b | Evaluate success of online courses and add courses and numbers of licenses as needed. | Director of Alternative Education | July 2014 ongoing | Number of enrollments in online classes. Number of credits earned in online classes. |
| 3h1.3.c | Pilot the use of synchronous learning platforms (like Adobe Connect) with alternative education independent study students via a call center approach where teachers are available for specific help in specific content areas via live meetings throughout the school day. | Director of Alternative Education | July 2014 | Recorded meetings to monitor interactions between students and teachers to measure efficacy of synchronous learning. |

i. 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 needs.

Student Information

Power School (formerly Chancery) is our web-based student information system. It provides accurate and secure access to all student records and related school and teacher data, with complete audit capabilities, from any district location. Teachers, counselors and administrators use Power School to record attendance and comments related to behavior and academic performance, schedule students, monitor progress, and enter final grades. Power School data also feeds data to Canvas LMS and Jupiter Grades. This ensures that teachers have up to date enrollment information when using Canvas and Jupiter Grades.

The anytime/anywhere functionality allows itinerant counselors, Executive Directors, research specialists, teachers, and others to acquire and analyze data for a variety of educational decisions, including student placement, instructional interventions, hiring, facilities design, and accountability.

Next steps for our student information system involve a total integration of data between Power School and our LMS/Grade book tools. One important consideration for our District (and districts around the country) is the security of student data being shared in the cloud with providers who assist the District with data management and analysis. A recent study by the Center on Law and Information Policy at Fordham Law School in New York found weaknesses in the protection of student information in the contracts that school districts sign when outsourcing web-based tasks to service companies. The study's recommendations include: that contracts(ors) specify the type of services a company provides, list the types of information collected and limit the re-disclosure of students' details. Also recommended is that education officials notify parents about the nature of information disclosed to third parties and post information about privacy protection on district websites.

Assessment and Analysis

The District has been using Data Director for quantitative as well as qualitative data analysis in an effort to inform instruction, assist with district wide planning, analyze target groups, and develop interventions aimed at closing achievement gaps. Research clearly shows that if instructional plans at the state, county, district, school, classroom, and individual student levels are based on assessment information relevant to the desired learning outcomes for students, the probability is increased that they will attain these desired learning outcomes.

Data Director has allowed the District to efficiently manage and analyze large quantities of student assessment data for:

- Narrowing achievement gaps
- Sharing best practices
- Improving teacher quality
- Increasing the role of data in education decisions

While Data Director has been a useful tool since 2007, we are evaluating whether it will continue to meet our needs as we move into a more technology-driven, immediate feedback, cloud-based learning community. New common core standards with performance task assessments and a focus on rigor and relevance require students and teachers to know in real time what is happening in the classroom. In the past, we have used tools like Data Director to assist with data analysis post-summative assessment. Moving forward, we are going to need an ELAR that integrates with our LMS, provides students and teachers with dashboard tools and demonstrates the ability to integrate data from multiple sources to provide teachers, administrators, and counselors with a complete picture of the student at the moment the snapshot is taken.

Goal 1: Use technology systems to monitor student progress and analyze student needs.

| Curricular Strategy 3i.1.1 | All teachers appropriately use Jupiter Grades, and Canvas for assessments, grades, and extending learning beyond the classroom. | | | | | |
|-------------------------------|---|--|---|--|--|--|
| Objective 3i.1.1 | - | By June 2017, 100% of teachers will use Jupiter Grades and Canvas for assessments, grades, and extending learning beyond the classroom | | | | |
| Leadership | Executive Directors / Dir | rector of Educational Tech | hnology/Principals | | | |
| Funding | General Fund | | | | | |
| Benchmark | | | | | | |
| 3i.1.1.a | By June 2014, 70% of to extending learning beyo | | rades and Canvas for ass | sessments, grades, and | | |
| 3i.1.1.b | By June 2015, 80% of to extending learning beyo | | rades and Canvas for ass | sessments, grades, and | | |
| 3i.1.1.c | By June 2016, 90% of to extending learning beyo | - | rades and Canvas for ass | sessments, grades, and | | |
| Implementation and r | nonitoring for Benchma | rks 3i.1.1.a | | | | |
| Benchmark | Implementation Plan and Activities | | | | | |
| 3i.1.1.a | Review usage reports for Canvas. How many courses are active and published? How many student licenses are being used? How many parents have created observer roles? How is data being captured and shared? | Principals | Weekly, all plan years | Reports will be generated and shared with site administrators on a monthly basis or as needed. | | |
| 3i.1.1.a | Review usage reports for Jupiter Grades. How many grade books are active and published? How many teacher licenses are being used? How many parents have created observer roles? How often are parents being communicated with | Principals | All years: Prior to printing of progress reports or report cards, all plan years | Take corrective action and/or provide professional development as necessary. | | |

| Curricular Strategy 3i.1.2 | Implement formative and summative assessments (District and teacher created) along with performance tasks using Canvas LMS and/or Jupiter Grades. | | | | | | | | |
|-------------------------------|---|--------------------|--------------------------|---|--|--|--|--|--|
| Objective 3i.1.2 | By June 2017 100% of teachers will use Canvas LMS and/or Jupiter Grades to administer formative, summative and performance task assessments. | | | | | | | | |
| Leadership | Principals | | | | | | | | |
| Funding | General Fund | | | | | | | | |
| Benchmarks | | | | | | | | | |
| 3i.1.2.a | By June 2014 all teache quarterly performance to | | one multiple measures i | e. end of course exam or | | | | | |
| 3i.1.2.b | By June 2015 all teache performance task using | | ple measures i.e. end of | course exam or quarterly | | | | | |
| 3i.1.2.c | By June 2016 all teachers will administer formative and summative assessments i.e. course quizzes, end of course exam or quarterly performance task using Canvas LMS. | | | | | | | | |
| Implementation and r | monitoring for Benchma | arks 3i.1.2.a-c | | | | | | | |
| Benchmark | Implementation Plan and Activities | Responsible Person | Timeline | Monitoring and Evaluation Activities | | | | | |
| 3i.1.2.a-c | DWAST and Cohort teams will build district wide assessments in content areas. DWAST Cohort teachers July 2014-June | | July 2014-June 2015 | DWAST and cohort teams will report to curriculum and instruction progress on | | | | | |
| | | | | completing assessments. | | | | | |

Goals, measurable objectives, annual benchmarks, and an implementation plan to use technology to improve two-way communication between home and school.

Technology is currently being used to improve home/school communication in the District in a variety of ways.

- Schools each have the following:
 - websites that conform to a district supported template and staff members at each site who receive a stipend to maintain the website
 - o links to and from the District website
 - access to Power School SMS and Blackboard Connect (for final grades and school wide communications)
 - Jupiter Grades which also allows administrators to message to the entire school community via Jupiter's database.
- Teachers and long term substitutes have the following:
 - district assigned e-mail accounts via Microsoft Outlook (accessible via web and desktop)
 - district assigned Google Drive accounts (g-mail has been suppressed for teachers)
 - Jupiter Grades and Canvas accounts both communicate directly with parents via text and e-mail.
 - Power School SMS and Blackboard Connect (for final grades and school wide communications to parents
- Students have the following:
 - District provided g-mail and Google Drive accounts.
 - District provided access to Jupiter Grades and Canvas LMS. (for Canvas all students by July 2014)
 - District provided devices (iPads) for students in grades 7-8. Ninth grade will be included in July 2014. All students grades 7-12 will be included by July 2017.
- Parents have the following:
 - District provided access to Jupiter Grades and Canvas LMS. (for Canvas all students by July 2014)
 - Access to Power School SMS via Parent Connect for information about student attendance
 - Access to District and school websites

In the past, relying entirely on Internet-based communication presented issues for Sweetwater. This was because Internet access was not available to many families in our community. While there are still many families without Internet access, there are an increasing number who have access to the Internet at home or via their cell-phone provider. We still use ConnectEd (now Blackboard Connect) to communicate with all homes, and we are using the texting features within products like Canvas and Blackboard to communicate with families. We also participate in Cox Communications Connect2Compete program which provides affordable Internet service and a computer to families who are identified as eligible for free lunch. In December of 2013, the following data reflects families who have taken advantage of Cox's Connect2Compete program:

| | Applied 2013 | Signed Up 2013 | Sign Ups from Trial |
|--------------------------|--------------|----------------|---------------------|
| SWEETWATER UNION HIGH | 239 | 127 | 45 |
| BONITA VISTA MIDDLE | 3 | 0 | |
| BONITA VISTA SENIOR HIGH | 3 | 2 | |
| CASTLE PARK MIDDLE | 44 | 17 | |
| CASTLE PARK SENIOR HIGH | 8 | 6 | |
| CHULA VISTA MIDDLE | 20 | 10 | |
| Chula Vista Senior High | 6 | 5 | |
| GRANGER JUNIOR HIGH | 20 | 8 | |
| HILLTOP MIDDLE | 11 | 6 | |
| HILLTOP SENIOR HIGH | 2 | 0 | |
| MAR VISTA MIDDLE | 18 | 10 | |
| MAR VISTA SENIOR HIGH | 4 | 1 | |
| MONTGOMERY MIDDLE | 5 | 3 | |
| MONTGOMERY SENIOR HIGH | 2 | 2 | |
| NATIONAL CITY MIDDLE | 23 | 13 | |
| RANCHO DEL REY MIDDLE | 2 | 2 | |
| SAN YSIDRO HIGH | 12 | 7 | |
| SOUTHWEST MIDDLE | 11 | 5 | |
| SOUTHWEST SENIOR HIGH | 21 | 14 | |
| SWEETWATER HIGH | 24 | 16 | |

The District will continue to use an automated phone messaging system to maintain contact with parents, students, and staff. The District will also scale-up implementation of Canvas LMS and Jupiter Grades to ensure parents have ready computer, tablet, and smart phone access to student performance data and teacher-provided resources.

Goal 1: Enhance two way home/school communication by supporting parent access and use of online information.

| Objective 3j.1.1 | By June 2017 - 95% of parents will have logged in to Jupiter Grades and/or Canvas LMS for the purpose of monitoring their child's progress, communicating with classroom teachers, reviewing other data i.e. attendance, behavior, and intervention strategies. | | | | | | | | |
|---------------------|---|---|-------------------------|---|--|--|--|--|--|
| Leadership | Executive Directors | Executive Directors | | | | | | | |
| Funding | General Fund/Curriculu | General Fund/Curriculum/E-rate | | | | | | | |
| Benchmarks | Benchmarks | | | | | | | | |
| 3j.1.1.a | By June 2015 - 75% of parents will have logged in to Jupiter Grades and/or Canvas LMS. | Principals | Ongoing throughout plan | User activity reports, parent training signins, and parent surveys. | | | | | |
| 3j.1.1.b | By June 2016 - 85% of parents will have logged in to Jupiter Grades and/or Canvas LMS. | Principals | Ongoing throughout plan | User activity reports, parent training signins, and parent surveys. | | | | | |
| 3j.1.1.c | By June 2017 - 95% of parents will have | Principals Ongoing throughout User activity re plan parent training | | | | | | | |

| | logged in to Jupiter Grades and/or Canvas LMS. | | | ins, and parent surveys. | | | | | |
|---|---|--|-------------------|---|--|--|--|--|--|
| Implementation and monitoring for Benchmarks 3j.1.1.a-c | | | | | | | | | |
| Benchmark | Implementation Plan and Activities | Responsible Person | Timeline | Monitoring and Evaluation Activities | | | | | |
| 3j.1.1.a-c | Schools will provide assistance to parents who need help logging in to Jupiter Grades | Principals | June-August 2014 | Monthly reports to schools with parent log-in information | | | | | |
| 3j.1.1.a-c | Jupiter Grades information will be included on student locator cards and in registration packets. | Principals | July of each year | system in place | | | | | |
| 3j.1.1.a-c | Links to Jupiter Grades will be on all District and school web pages. | Director of Grants/Comm | Annually | Discussions at principal PLC meetings. | | | | | |
| 3j.1.1.a-c | Help desk access via telephone and e-mail will be provided to all parents. | Principals/Dir of Educational Technology | Annually | system in place | | | | | |

k. Process to monitor Curricular Component goals, objectives, benchmarks, and planned implementation activities.

The SUHSD Strategic Plan requires frequent evaluation of progress toward meeting all the outlined strategies. Specific cabinet members are responsible for each strategy and its goals. The Executive Director of Curriculum and Instruction has overall responsibility for implementing the curricular goals of this plan.

Quarterly meetings are held to review status of implementation with stakeholders and to update the Superintendent's Cabinet. As our technology objectives are embedded into the Strategic Plan, they will also be subjected to verification of implementation at Cabinet level.

In addition, DWAST, teacher-leader and administrator site representatives in Cohort Teams play a critical role not only in informing their site colleagues with regard to new initiatives and requirements, but also in reporting back success level of implementation.

Program Improvement sites have Academic Support teams (DWAST) assigned to their campuses. These individuals work closely with teachers and site administrators in improving instruction in the

classroom. Their role will include the use of technology as a strategy for differentiating instruction and the informal and formal verification of student learning.

The Curricular Strategies in Section 3 of this plan are summarized in the table below.

| 3d.1.1 | All students in grades 7-12 will be digital learners, able to use online tools and resources to support their academic goals as well as to demonstrate mastery of standards. |
|--------|--|
| 3d.1.2 | Core courses, electives courses, and career technical education courses (ROP) will have resources available via the Curriculum Website and Canvas assisting teachers with deepening their understanding of the common core and NGSS standards for science. |
| 3d.1.3 | Core-subject teachers implement lessons using Canvas and Google Drive to expand access to content, support and productivity tools. |
| 3d.2 | Develop and implement walk-through observations forms and student performance dashboards (online) that provide teachers with immediate feedback as well as resources for improving instruction in all content areas. Tools will have built-in communication and collaboration components such as email, file sharing, photo sharing, video logging, etc. |
| 3e.1.1 | Teach tech and information literacy, cyberethics, and cybersafety as part of middle school curriculum at the 7 th grade. |
| 3f.1.1 | All students receive continuous reinforcement regarding the legal and ethical use of electronic resources. |
| 3g.1.1 | All students receive continuous reinforcement of best practices for Internet safety. |
| 3h.1.1 | Ensure equitable access for all students to assistive technologies. |
| 3h.1.2 | Provide access to Achieve 3000 for all students who score FBB or BB in English Language Arts |
| 3h.1.3 | Provide online courses to increase students' access to a variety of curriculum content. |
| 3i.1.1 | All teachers appropriately use Jupiter Grades, and Canvas for assessments, grades, and extending learning beyond the classroom. |
| 3i.1.2 | All teachers will use Canvas LMS and/or Jupiter Grades to administer formative, summative and performance task assessments. |
| 3j.1.1 | All parents will use Jupiter Grades and/or Canvas LMS for the purpose of monitoring their child's progress, communicating with classroom teachers, reviewing other data i.e. attendance, behavior, and intervention strategies. |

4. PROFESSIONAL DEVELOPMENT

Staff development programs in technology will be comprehensive, coordinated with other district goals, and focus on the application of technologies in conjunction with the common core in the instructional setting. Training will address how teachers can use tablet devices along with more traditional technologies to fully implement the common core standards in all content areas. Professional development will be based on current and emerging research literature that shows how educational technology strategies in 1-1 settings, methods for student learning with mobile devices, and classroom management with mobile devices improve student academic achievement. Training will focus on a combination of traditional pull-out staff development, elbow-to-elbow support at schools, and both synchronous and asynchronous online delivery.

The Educational Technology and Curriculum Departments will oversee and implement most of the professional development defined in this plan. The technology staff development program will promote a coordinated effort between the district office and individual school communities that aligns with the district's Strategic Plan.

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

Analysis of teacher and administrator professional development needs relied on data from the teacher surveys the District conducted for both middle and high school teachers. In addition, we include data from an Apple Educational Technology District Profile Survey dated 4/22/13.

General Technology Demographics

When asked about the availability of primary learning technology tools, teachers surveyed reported the following:

No technology available for students - 36.8% iPhone or iPod touch technology available for students - 2.9% iPad technology available for students - 28.1% Notebook computer technology available for students - 4.1% Desktop computer technology available for students - 28.1%

When asked about the availability of technology as one-to-one device, teachers surveyed reported the following:

No technology available for students - 33.9% 1-1 technology available for students - 42.1% No 1-1 technology available for students - 24%

When asked about the availability of take home technology for students, teachers surveyed reported the following:

No technology available for students - 32.7% Students have take-home availability - 32.2% Students do not have take-home availability - 35.1%

Teachers' Use of Technology

In 2012-14 (two school years), all middle school teachers received iPads for use in the classroom. Four full days of training in subject specific areas were provided. Special education teachers and school librarians were also included in the training. Training continues to be a priority. In addition to having an "embedded" trainer to work with teachers in the classroom, 20 teachers each year for the next four years will be certified through Apple's Vanguard program called Apple Institutes. Teachers will have five full days of training, receive 20 hours each of observation in the classroom, and receive certification that will permit them to train teachers anywhere in the country with Apple's materials and credentials as Apple certified.

Middle school teachers (while at various stages of application from substitution to redefinition) are using iPads for tasks such as annotating text, checking for understanding, in-class presentations, creating digital content, and researching on the Internet. In addition, iPads are being used for local measures such as end of course exams as well as the new performance tasks aligned to the common core. Many teachers are powerful technology users who use technology for peer editing, student-led presentations, video production, and "flipped" learning.

Students are using iPads daily to create movies, post work, give presentations, review learning, and access resources to complete assignments. All technology-enhanced assignments align with state and district curriculum standards. In 2014-15, all high school teachers will receive iPads for use in the classroom. While only 9th grade students will have iPads for daily use in 2014-15, we believe giving all teachers iPads will accelerate our efforts to ensure all teachers have the skills and tools they need to infuse technology into their subject areas.

A recent teacher survey (of middle school teachers) indicates that teachers have the following views of using iPads in a 1-1 classroom program:

- Teachers see iPads as providing students with greater access to information.
- •Teachers see iPads and Canvas (learning management system) as providing for better communication.
- Teachers do not report a substantially higher level of student engagement.
- •iPad limiting factors (based on teacher input) are:
 - •Management of time on task and student distractibility
 - Network issues that interrupt wireless access
 - Students not bringing iPads to class

45% of teachers said they felt they were pretty good or expert users of iPads in the classroom. Only 9% said they had no idea how to use iPads.

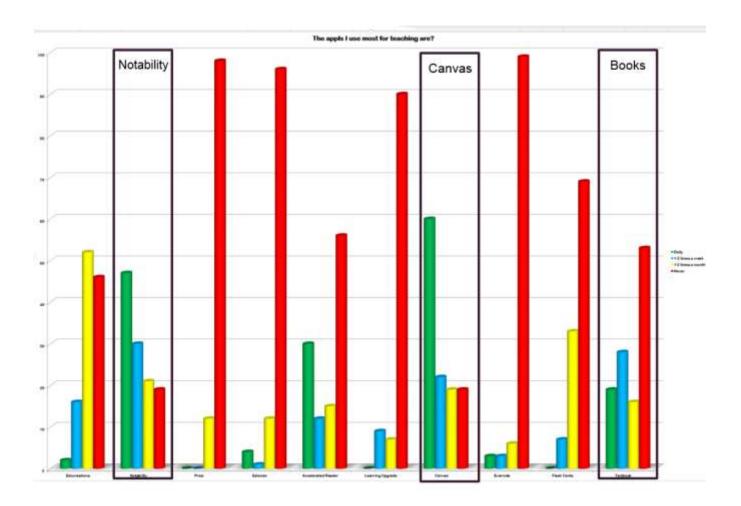
58% of middle school teachers use a presentation technology to present a lesson. 24% of teachers seldom use a presentation technology to present a lesson.

78% of teachers say that having an iPad is having a positive or somewhat positive impact on their teaching. 12% of teachers state that having an iPad is not having a positive impact on their teaching.

62% of teachers say that having an iPad is having a positive or somewhat positive impact on student learning. 13% of teachers state that having an iPad is not having a positive impact on student learning.

We asked about apps and digital textbooks that support digital workflow (Canvas, Notability, pdf-texts):

- •Teachers are using Canvas daily or 1-2 times a week
- **Digital textbook** use is not high but this could be because not all textbooks are available on the iPad. We need to ask more specific questions of math and English teachers.
- •Notability use (for annotation and written work) is high.



We are conducting a lengthier survey of high school teachers to measure use and attitudes about technology in light of the shift toward 1-1. Since 2012, there have been efforts to encourage teachers to use technology - in part by trying to identify barriers such as slow network speeds, user interfaces that are not intuitive or friendly, cost-limitations that prevent all users from having access, and more flexible approaches to professional development that allow for teachers to get immediate assistance via online meeting spaces like Adobe Connect. In addition, we have continued building capacity in the areas of:

- significant and sustained technology professional development efforts
- a strategic focus on the use of data to drive instruction data that is often delivered and analyzed through online systems.
- a move toward standardization of hardware district-wide, and a reorganization of technical support that has made computer equipment more reliable and thus, more likely to be a teacher's tool of choice.
- Upgrades to the district's bandwidth and redundancy of wireless access points to manage increased traffic.

100% of teachers in middle and high schools record attendance daily through the district's web-based student information system (Power School). These same teachers must submit progress report, semester, and final grades through using Jupiter Grades. 100% of teachers are using Jupiter Grades and Power School for grades and attendance.

The number of teachers who consider their general computer knowledge at the intermediate level is at 49%, which is an increase of 10% since our last plan, and the number that consider themselves as proficient is at 40%. Since the date came from a self-report survey rather than a performance-based assessment, this may indicate a broader understanding by teachers of what can be done with a computer. They may have discovered more about the potential of technology, and have repositioned themselves accordingly. The same may be said for word processing. There were increases at the beginning and intermediate levels, but a slight drop at the proficient level. Internet usage remained at a constant level between 2011and 2013 but database skills showed a marked improvement most likely credited to the significant amount of training done in our data management software, DataDirector. There was nearly a 31% increase in beginning spreadsheet users and an increase in proficient email users who are up to 43%. It is troubling to note that 2% of teachers report having no email or internet skills which was the same beginning percent in our 2008 - 2011 Technology Plan.

As teachers get more experience using Canvas and Google Drive, we expect they will take advantage of the tools Canvas provides that allow students to problem-solve, analyze data, and create graphic presentations. The use of probeware, graphing calculators, and database software is common in science and math classes. As more "tablet" friendly products emerge, we believe teachers will begin to integrate those products and their uses in the classroom - especially in math and science classes.

Students' Use of Technology

Data on student use of technology gives insight into the degree in which teachers have effectively made 1:1 computing part of daily instruction. Students in each middle school (including our 1 junior high where ninth graders have iPads), and our STEAM Charter School are using technology daily with iPads. The type of use varies from classroom to classroom but generally, iPads are used by students for: conducting Internet research, annotation of expository text, skill review and remediation (i.e. flashcards), creating presentations, completing classroom assignments, and homework.

Administrators' Use of Technology

Administrators have also received training from Human Resources on topics related to cyber-bullying and sexual harassment. While this training did not focus exclusively on online issues, scenarios presented during training covered topics like how to advise teachers about their digital lives and possible professional impacts of sharing personal photos and other information in social spaces like Facebook.

Administrators have admitted to feeling behind the curve when it comes to using new technology like Canvas, Jupiter Grades, Google Drive and iPads. While all administrators have iPads, they are being used primarily for walkthrough observations. Having said that, the following is support is being provided or planned for site administrators:

2013-14

Administrators received training in administrative uses for Canvas during the administrators kick-off in July. Some examples provided were using Canvas for WASC review and PLC work. Many high school administrators who were new to Canvas have been using Canvas for this throughout the school year.

Administrators received training from their peers (already familiar with Jupiter Grades) in the use of Jupiter Grades. Educational Technology has also provided professional development on demand.

Administrators will be introduced in July 2015 to the SAMR model. The purpose for this will be to give them the ability to know what to look for in the classroom as they build capacity at their schools around technology-based delivery of instruction.

b. Goals, measurable objectives, annual benchmarks, and an implementation plan for providing professional development opportunities based on district needs.

In the 2013-14 Apple Professional Development Survey (administered to all teachers in SUHSD) The following data was collected:

More than 80% of respondents reported being at the substitution tier of the SAMR model. This is the stage where new technology substitutes for an older tool, with no change in tasks undertaken by students. However, features of the new technology are used to improve how these tasks area carried out by students, such as by making the tasks easier or faster to accomplish or by providing additional features not previously available. At this level, small improvements in students outcomes are recorded (based on data drawn from Dr. Ruben Puentedura's SAMR model).

This data suggests that Professional Development most useful to teachers implementing technology in the classroom should focus on technology skills that help teachers feel more confident and comfortable integrating technology into their teaching strategies.

Further data from the same survey shows that 82-90% of teachers are at the foundations level in the following specific areas of technology integration:

CALIFORNIA DEPARTMENT OF EDUCATION ENHANCING EDUCATION THROUGH TECHNOLOGY

social - 88.3% mobile - 89.5% data analysis - 88.9% visualization - 88.3% media - 90.1% digital storytelling - 82.5% educational gaming - 85.4%

Teachers also reported the following with respect to specific professional engagement activities around technology integration and instruction:

| | No Role | Minor Role | Significant Role | Crucial Role |
|---|---------|------------|------------------|--------------|
| Serves on committees | 61.4% | 19.9% | 11.7% | 7% |
| Works on teams | 46.2% | 29.2% | 13.5% | 11.1% |
| Participates in Online Networks | 48.5% | 28.7% | 17.0% | 5.8% |
| Access Online Resources | 15.8% | 30.4% | 35.7% | 18.1% |
| Contribute to Online Resources | 39.8% | 29.8% | 19.9% | 10.5% |
| Developed Flipped Classroom Materials | 60.8% | 20.5% | 7.6% | 11.1% |
| Communicate with Parents | 22.8% | 32.2% | 22.8% | 22.2% |

Based on this and other data, our professional development goals fall into eight general categories that provide teachers and administrators with sustained, ongoing professional development necessary to reach the Curriculum Component objectives.

1. Co-planning on a weekly basis

Since teachers already plan instruction within their PLC groups and department meetings, the structure for achieving this goal exists. In addition, a culture around teacher collaboration has been created in the district at all schools. By providing every teacher in the District with an iPad (fully implemented in spring 2014) and by requiring teachers to be participants in technology-integrated staff meetings, PLCs, cohort training, and iPad training - we are modeling for teachers what we want them to do with students. Using the SAMR model to help teachers understand what technology based instruction looks like will provide us with a common framework for developing increasingly engaging lessons aimed at transferring responsibility for learning to students. A guiding question for teachers to use when planning is, "Am I the sage on the stage or the guide on the side?" While there are times for teachers to be sages on the stage, we need to encourage teachers to take risks, embrace failure, and allow students to struggle with essential questions. In addition, teachers need to discuss how they can use iPads to help students be more collaborative, engaged, and thoughtful about what they are being asked to learn and understand.

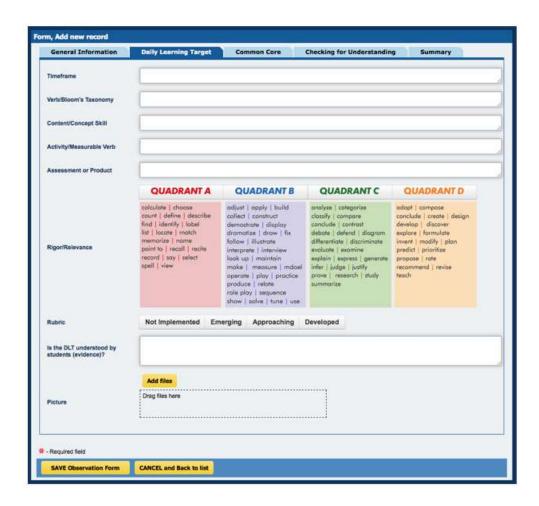
2. Coaching on a weekly basis-3. Debriefing on coaching on a weekly basis

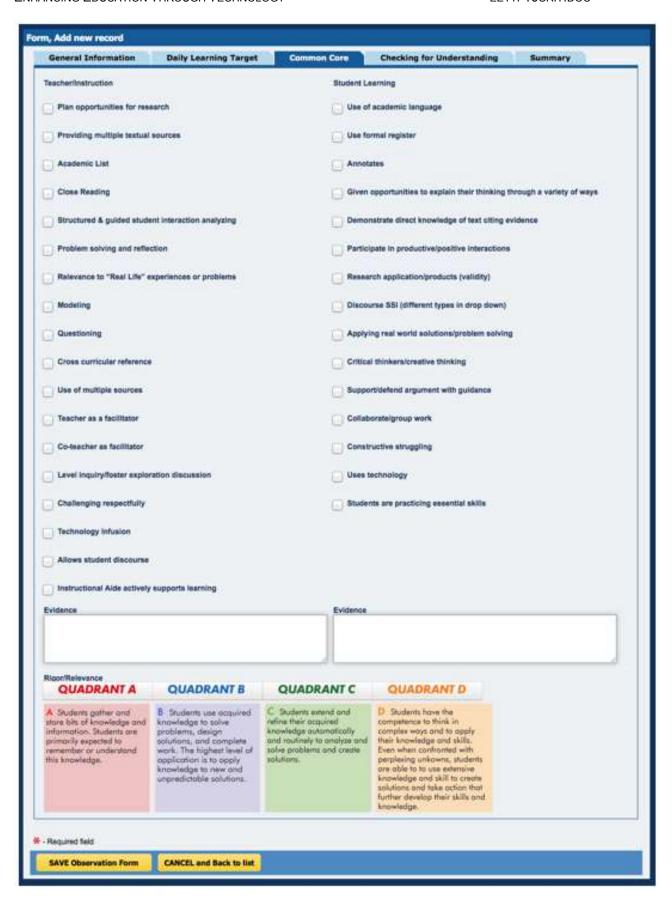
Schools already have DWAST support in core content areas allowing teachers to get the coaching they need. This coaching should be a combination of instructional coaching (how well is the teacher able to communicate and accomplish the goals set forth in the Daily Learning Target?) and technology integration modeling (let me show you how you can use iPads with students to enhance this lesson.) For those students who do not have iPads yet, teachers can still be encouraged to use their iPads in the classroom to record data, capture artifacts of student interaction and learning, share those artifacts in ways students and parents can access (via Canvas, Jupiter Grades, Safari Montage) and use the artifacts to reflect on instruction. Not every teacher needs coaching at the same level or for the same things.

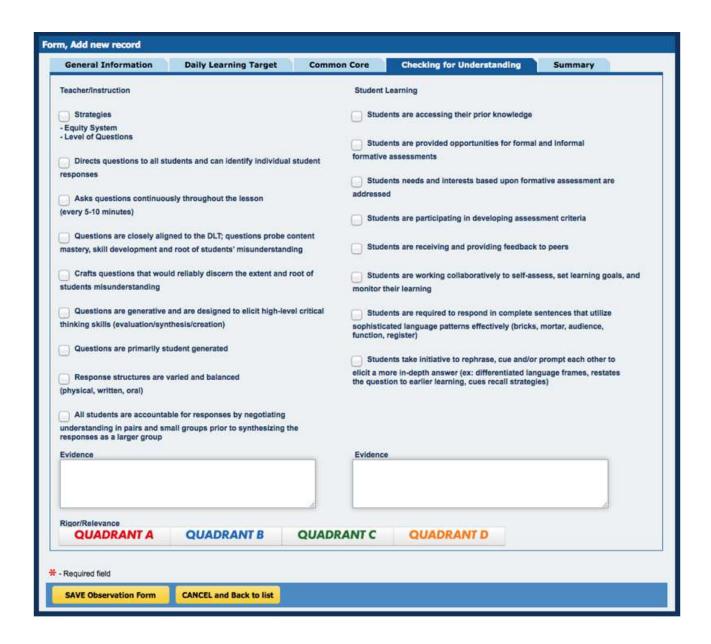
Administrators use iPads to provide feedback to teachers after visiting their classrooms (see illustration(s) below). They have the ability to take pictures, record thoughts, and e-mail notes. This gives teachers and administrators the ability to communicate in real time about adjustments that need to be made or enhancements that should be explored. More importantly - it helps teachers and administrators hold one another accountable for expectations around student learning. The District expects administrators in every school to conduct at least 3 walkthroughs daily. Principals and Assistant Principals are expected to be the instructional leaders at the schools. Data is recorded and reviewed by lead principals to ensure these walkthroughs are being conducted and that protocols are being adhered to.

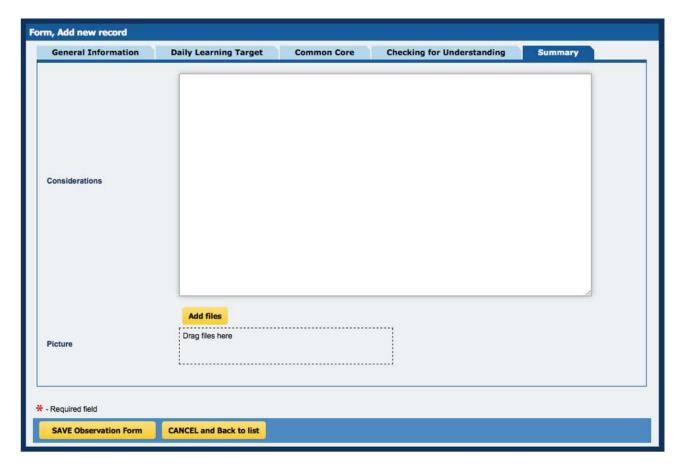
Current Walkthrough Form

Principals use iPads to record and send information to teachers 3 walk-throughs per administrator daily are the district standard









Lead Principal Data Sheet

lead principals get real-time data on walk-throughs



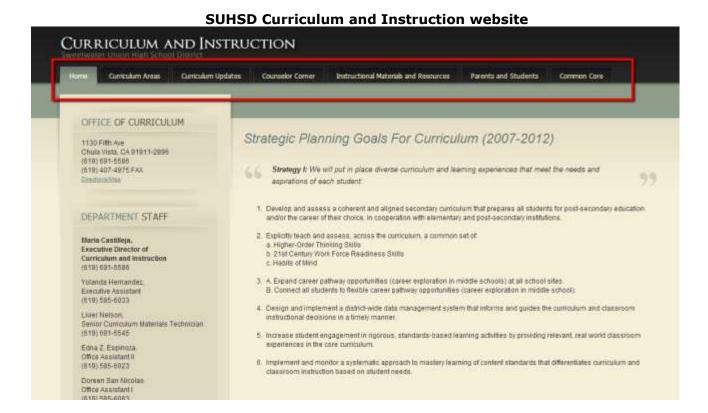
4. District provided professional learning - 5. Faculty Department Training

The District is committed to ongoing professional development for all teachers. The District provides professional learning to support the District's instructional initiatives. In addition to professional development for teachers and administrators, the Executive Director of Curriculum and Instruction maintains a state-of-the-art website accessible to all teachers and administrators. This website (see image below) includes pacing guides, standards and frameworks, graduation requirements, information for counselors, and information about high stakes assessments.

Each school provides site-based professional development during teacher professional development days, PLCs, and staff meetings. Professional development plans must be included in each school's single plan for student achievement as well as documented for WASC accreditation. Each school has CIA coordinator responsible for ensuring the schools comply with all school improvement and single plan goals and that budgets are appropriately used to fund initiatives aimed at raising student achievement.

Specific Cohort training is conducted Districtwide by core subject area. These cohort meetings are designed to establish a continuum of practice across the District in all core subjects. Cohort participants attend from each school and are selected by the school Principal. In most cases, the Cohort participants are PLC leaders or department chairs. They are responsible for communicating

back to their respective department colleagues and to assist with the implementation of District instructional initiatives.



SUHSD Professional Development Calendar 2013-14
All professional development is scheduled and published - color-coded by department. Curriculum and Instruction in red

| | | | District Matrix of Meetings and | PR | res | tiouth he | velopmen | r Calendar for 24 | 112-2014 | | | | _ | | |
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Rev - 7/1/13

Educational Technology

2013-2014 Meetings and Professional Development

Semester 1

| Who | What | When | Where | Laptops | Action |
|------------------|---------------------------|-------------|--------------|----------------|------------------------|
| Apple trainer/Ed | Planning/Implementation | 7/26/13 | Alt Ed Conf. | 0 | Calendar for Christine |
| Tech | | 2-4 PM | | | |
| Teachers | iPad make-up training | 7/29; 7/30, | PDC, Parent | 0 | Notify Principals |
| | | 7/31 | Ctr., SYH | | Provide pseudo |
| | | 8-2:30 PM | Lab | | number |
| Administrators | iPad training for admin | 8/1 | PDC | 0 | Notify admins |
| | | 8-11:30 AM | | | Create agenda with |
| | | | | | learning objectives |
| Administrators | Canvas training for admin | 8/1 | PDC | 40 | Notify admins |
| | | 12-3:30 PM | | | Create agenda with |
| | | | | | learning objectives |
| PLC for 1-1 | Planning/implementation | 8/9/13 | Alt Ed Conf. | 0 | Select PLC – APs; |
| | | 1:30-3:00 | | | calendar for Christine |
| Apple trainer/Ed | Planning/Implementation | 8/16/13 | Alt Ed Conf. | 0 | Calendar for Christine |
| Tech | | 2-4 PM | | | |
| Apple Trainer of | Apple Institute – 1 | 8/19/13 | Parent Ctr. | 20 | Calendar for Christine |
| Trainers | | 8-4:00 PM | | | - finalize list of |
| | | | | | attendees |
| Technology | Tech plan development | 8/30 | PDC | 0 | ID Brahim Wahib to |
| Planning | | 1:30-3:30 | | | lead this effort. |
| Committee | | | | | |
| PLC for 1-1 | Planning/implementation | 9/6/13 | Alt Ed Conf. | 0 | Calendar for Christine |
| | | 1:30-3:00 | | | |
| Apple trainer/Ed | Planning/Implementation | 7/26/13 | Alt Ed Conf. | 0 | Calendar for Christine |
| Tech | | 2-4 PM | | | |
| Apple Trainer of | Apple Institute – 2 | 9/16/13 | A/B | 20 | Calendar for Christine |
| Trainers | | 8-4:00 PM | | | |
| Apple Trainer of | Apple Institute – 3 | 10/21/13 | TBD | 20 | Calendar for Christine |
| Trainers | | 8-4:00 PM | | | |
| Technology | Tech plan development | 10/25/13 | PDC | 0 | Draft Development |
| Planning | | 1:30-3:30 | | | |
| Committee | | | | | |
| PLC for 1-1 | Planning/implementation | 11/8/13 | Alt Ed Conf. | 0 | Calendar for Christine |
| | | 1:30-3:00 | | | |
| Apple trainer/Ed | Planning/Implementation | 11/15/13 | Alt Ed Conf. | 0 | Calendar for Christine |
| Tech | | 2-4 PM | | | |
| Apple Trainer of | Apple Institute – 4 | 9/16/13 | A/B | 20 | Calendar for Christine |
| Trainers | | 8-4:00 PM | 1 | | |
| Apple trainer/Ed | Planning/Implementation | 12/6/13 | Alt Ed Conf. | 0 | Calendar for Christine |
| Tech | | 2-4 PM | 1 | | |
| Technology | Tech plan development | 12/13/13 | PDC | 0 | Draft Due |
| Planning | | 1:30-3:30 | | | |
| Committee | | | | | |

6. In-Class Shoulder-to-Shoulder Mentoring

Beginning in July 2013, the District hired an "embedded" Apple trainer to work shoulder to shoulder with teachers in middle school classrooms. While one individual cannot work with every middle school teacher in every classroom, we believe she can model shoulder to shoulder mentoring at each school, assist us with building capacity by training our technology leaders at each school to do what she does, and provide support to teachers in a variety of ways while they are working with students and iPads. We have structured her time as follows:

- She is assigned to each middle school for two weeks. At many schools, principals are allowing teachers time to meet with her to plan instruction and discuss needs. She makes herself available for lunchtime tutorials, before and after school support, and scheduled time in class. In addition, she makes herself available for lunchtime tutorials, before and after school support, and scheduled time in class for coaching and mentoring support. She is providing training for PD days, faculty meetings, PLCs on Friday afternoons, etc.
- She is training 20 of our lead teachers at the middle schools over the course of the school year using Apple's Vanguard Training Program that certifies teachers to become Apple trainers. This training includes 5 all-day sessions, 5 two hour PLC meetings, and 5 hours of observation for each participant.
- She is assisting with the creation of student-led genius bars at several middle schools.
- She re-visits schools and teachers who request additional support after her two week assignments.

We have budgeted to have her continue working with middle schools as we progress with using iPads at high schools. In addition, we will assign two of the teachers she has trained to support the high schools in the 2014-15 school year. They will apply the same model - in essence, allowing us to multiply her work district wide over the course of our 1-1 deployment through the 2017-18 school year.

7. Online Professional Learning - 8. Teacher Collaboration

With the adoption of Canvas (LMS) and Google Drive we are moving much of our professional learning into a hybrid environment where teachers meet face to face to plan, and look at student work but share resources, create performance tasks, access rubrics, and test banks online. Much of what we have done to date has been asynchronous in nature - teachers can enroll in self-paced courses to help build skills, learn about apps, etc. Teachers can also use Canvas at the school and district professional development meetings to explore topics, look at common core frameworks, etc. We have begun to use synchronous meetings for on-demand teacher tech-support but haven't used synchronous meetings in lieu of face-to-face professional development. We see the future as one where teachers learn in a hybrid setting incorporating face-to-face meetings with online and virtual learning options. For example, a group of teachers might meet face to face to calibrate rubrics for a writing assignment while sharing a Google Doc and simultaneously editing, commenting, and creating. Teachers can also attend webinars where presenters are providing specific information at the same time discussions are being held face to face on the same topic. We also see a future where a student may be in class working on a project for science but unable to meet with his/her teacher to get help. The student could log in to a live Adobe Connect (or like) meeting space where a helpdesk teacher can provide the support the student needs, thus enabling the student to continue working on his/her project. The same scenario could play out for teachers who (while assigned to different schools) have connect through cohort meetings and want to collaborate on a project. Time could be scheduled for synchronous meetings that would allow teachers who are geographically too separated to get together during the school day to meet.

4B: Staff Development Goals

Goal 1

All teachers will incorporate 1-1 technology (iPads) apps, and Google Drive in order to develop and deliver lessons that are progressively innovative in terms of how instruction is delivered as well as how students experience learning.

Objective

4b.1.1

By June 2017, 100% of teachers will respond to survey data affirming the use of technology while planning including how they are applying the SAMR model.

Leadership

Director of Educational Technology, Principals, Assistant Principals, DWAST

Funding

General Fund /Title II

Benchmarks

| 4b.1.1.a | By June 2014 70% of teachers will respond to survey data affirming the use of technology while planning including how they are applying the SAMR model. |
|----------|---|
| 4b.1.1.b | By June 2015 80% of teachers will respond to survey data affirming the use of technology while planning including how they are applying the SAMR model. |
| 4b.1.1.c | By June 2016 90% of teachers will respond to survey data affirming the use of technology while planning including how they are applying the SAMR model. |

Implementation and monitoring for Benchmarks 4b.1.1.a-c

| Benchmark | Implementation Plan and Activities | Responsible Person | | |
|------------|---|--|-------------------|---|
| 4b.1.1.a-c | Develop planning practices checklist to help teachers think about ways they can use technology during their weekly planning meetings and introduce the checklist at iPad training in spring 2014. | Director of Educational Technology | March - July 2014 | principals and assistant principals will observe teacher practices in planning meetings over time |
| 4b.1.1.a-c | Share the SAMR model with all | Director of Educational | March - July 2014 | Teacher feedback, principal and |

| 4b.2.1.a | | achers will respond to sur clude self-reflection on de | rvey data affirming the ob pth of application. | jective criteria is being | | | | |
|------------|---|---|---|---|--|--|--|--|
| Benchmarks | | | | | | | | |
| Funding | Funding Title II/Professional Development | | | | | | | |
| Leadership | Principals/DWAST/Curriculum/Research and Evaluation | | | | | | | |
| | Objective 4b2.1 By June 2017, 100% of teachers will have received training for the use and implementation of student performance dashboards that provide students with immediate feedback as well as resources for improving instruction in all content areas. | | | | | | | |
| | Goal 2 All teachers will know how to use and inform student performance dashboards (online) that provide students with immediate feedback as well as resources for improving instruction in all content areas. Tools will have built-in communication and collaboration components such as email, file sharing, photo sharing, video logging, etc. | | | | | | | |
| 4b.1.1.a-c | Share survey results and next steps with administrators and teachers. | Director of Educational Technology | July of each year | distribute survey data with recommendations. | | | | |
| 4b.1.1.a-c | Conduct annual survey of teacher practice. | Director of Educational Technology | June of each year | data from surveys | | | | |
| 4b.1.1.a-c | Once all teachers have personal iPads, begin to routinely integrate technology and model SAMR principles and strategies at staff meetings, PLCs, and cohort training. | Principals | July 2014 and each year of this plan | Teacher feedback, principal and assistant principal feedback | | | | |
| 4b.1.1.a-c | Develop norms for planning time that include the commitment to use technology. | Principals | March - July 2014 | principals and assistant principals will observe teacher practices in planning meetings over time | | | | |
| | administrators and teachers. Include exemplars and suggestions for how to make planning time more technology-based. | Technology | | assistant principal feedback | | | | |

| 4b.2.1.b | By June 2015 80% of teachers will respond to survey data affirming the objective criteria is being met. Survey data will include self-reflection on depth of application. |
|----------|---|
| | By June 2016 90% of teachers will respond to survey data affirming the objective criteria is being met. Survey data will include self-reflection on depth of application. |

Action Plan for Monitoring Technology Integration

| | Implementation Plan and Activities | Responsible Person | Timeline | Monitoring and Evaluation Activities |
|------------|--|--|--|---|
| 4b.2.1 a-b | Training and use of dashboard tools that integrate performance data, professional development goals, teacher resources, and online videosharing will be ongoing at all District and school-based professional development. | Director of Educational Technology | July 2014 through June 2017 (duration of this plan). | teacher surveys, dashboard reports, and usage data. |

Goal 3

Teachers will be able to use iPads (personal device technology) to communicate with instructional coaches, administrators, and peers about how they are engaging students, recording data, capturing artifacts of student interaction and learning, and sharing those artifacts in ways that students/parents can access.

Objective

4b.3.1

By June 2017, 100% of teachers will be able to use iPads (personal device technology) to communicate with instructional coaches, administrators, and peers about how they are engaging students, recording data, capturing artifacts of student interaction and learning, and sharing those artifacts in ways that students/parents can access.

Leadership

Director of Educational Technology, Principals, Assistant Principals, DWAST

Funding

General Fund/Categorical/Title II

| Benchmarks | | | | |
|------------|---|--|--|--|
| 4b.3.1.a | By June 2014 70% of teachers will respond to survey data affirming the objective criteria is being met. Survey data will include self-reflection on depth of application. | | | |
| 4b.3.1.b | By June 2015 80% of teachers will respond to survey data affirming the objective criteria is being met. Survey data will include self-reflection on depth of application. | | | |

sessions.

| 4b.3.1.c | By June 2016 90% of teachers will respond to survey data affirming the objective criteria is being met. Survey data will include self-reflection on depth of application. | | | | |
|----------------------|---|--|--|---|--|
| Implementation and r | Implementation and monitoring for Benchmarks 4b.2.1.a-c | | | | |
| Benchmark | Implementation Plan and Activities Person Timeline Monito Eval Acti | | | | |
| 4b.3.1.a-c | DWAST and Apple Trainer will support the objective (all components) in coaching and debrief sessions with teachers. | Director of Educational Technology/Principals /Assistant Principals | each year of plan during daily instructional walkthroughs and coaching visits. | Feedback to teachers from principal and Assistant principal walkthroughs, DWAST and Apple trainer classroom visits and coaching | |

Goal 4

The District and instructional leaders at all schools will design all training to include: district academic performance initiatives, common core standards, technology integration and use for the duration of this plan.

Objective

4b.3.1

By June 2017, The District and instructional leaders at all schools will design all training to include: (1) district academic performance initiatives, (2) common core standards, (3) technology integration and use for the duration of this plan.

Leadership

Executive Director Curriculum and Instruction/Director or Educational Technology/Principals/Assistant Principals/DWAST

Funding

General Fund / Title II / Curriculum / Educational Technology / Special Services

| General Fund / Title II / Curriculum / Educational Technology / Special Services | | | | | |
|--|--|--|--|--|--|
| Benchmarks | | | | | |
| 4b.3.1.a | By June 2014, all Principals will submit their professional development plan(s) demonstrating that all of their site level training includes 1 of 3 of the "to include" in Objective 4b.3.1 above. | | | | |
| 4b.3.1.b | By June 2015, all Principals will submit their professional development plan(s) demonstrating that all of their site level training includes 2 of 3 of the "to include" in Objective 4b.3.1 above. | | | | |
| 4b.3.1.c | By June 2016, all Principals will submit their professional development plan(s) demonstrating that all of their site level training includes 3 of 3 of the "to include" in Objective 4b.3.1 above. | | | | |
| Implementation and monitoring for Benchmarks 4b.3.1 | | | | | |
| Implementation Plan | Responsible Person Timeline Monitoring and | | | | |

| and Activities | | | Evaluation Activities |
|--|----------------------------|---|---|
| Principals will review and discuss long term plans for educational technology and curriculum and instruction. | Lead Principals/Principals | each year of plan - one time annually | meeting sign-ins and attendance at district hosted information meetings |
| Principals will review and discuss the district's long term professional development plan. | Lead Principals/Principals | each year of plan - one time annually | site level meeting agendas and minutes |
| Principals will (in conjunction with teams from their schools) align their professional development plans with the district's long term educational technology and curriculum and instruction plans. | Lead Principals/Principals | each year of plan - one time annually | site level professional development plans |
| Principals will assess the degree to which they have the capacity at their schools to successfully implement their professional development plans. | Lead Principals/Principals | each year of plan - one time annually and ongoing as staffing changes | student performance data, classroom walkthrough data, student and community survey data, teacher self-reflection data |
| Principals (along with site leadership) will participate in district professional development aimed at helping them be more effective instructional leaders in relation to the common core and technology use. | Lead Principals/Principals | each year of plan - ongoing | meeting sign-ins and attendance at district hosted information meetings |
| Principals will use discretionary and non-discretionary funds to support their long term professional development needs. | Lead Principals/Principals | each year of plan - ongoing | single plan for student achievement |
| Principals will engage stakeholders (students, parents, and community members) to inform them about their long term professional development plans and how they correlate to student achievement/success. | Lead Principals/Principals | each year of plan - one time annually | meeting sign-ins and attendance at district hosted information meetings |

c. Process to monitor Professional Development goals, objectives, benchmarks, and planned implementation activities.

The SUHSD Strategic Plan requires frequent evaluation of progress toward meeting all the outlined strategies. Specific cabinet members are responsible for each strategy and its goals. The Director of Educational Technology has overall responsibility for implementing the professional development goals of this plan.

Quarterly meetings must be held to review status of implementation with stakeholders and to update the Superintendent's Cabinet. As our technology objectives are embedded into the Strategic Plan, they will also be subjected to verification of implementation at Cabinet level.

In addition, teacher leaders, administrators, DWAST and site representatives in subject specific cohorts play a critical role in using technology tools and platforms (Google Drive, Canvas (LMS), websites) to inform their site colleagues in regard to new initiatives and requirements. They must also ensure that reporting back on progress toward full implementation is an assigned responsibility thus ensuring it will get done. Professional Learning Communities must be skilled in the analysis and use of data to determine the degree of program effectiveness. Modifications to this professional development plan should be the result of careful and thoughtful analysis.

Program Improvement sites have Academic Support teams assigned to their campuses. These individuals work closely with teachers and site administrators in improving instruction in the classroom. Their role includes the use of technology as a strategy for differentiating instruction and the formative and summative verification of student learning.

5. INFRASTRUCTURE

a. Existing hardware, Internet access, electronic learning resources, and technical support already available in the district.

Student- and Teacher-Accessible Technology Hardware

Distribution of computers to various locations at the school sites is summarized in the following table.

| School Type | Student / Computer Ratio | Classroom | Lab | Library | Cart |
|-------------|--------------------------|-----------|-----|---------|------|
| Middle | 3.6 | 49% | 33% | 6% | 12% |
| High | 4.7 | 57% | 27% | 6% | 10% |
| Overall | 4.3 | 53% | 30% | 6% | 11% |

In addition, every middle school student has an iPad for use at school and at home.

With over 11,500 computers in classrooms, libraries, and labs, Sweetwater's student/computer ratio is close to the statewide average. However, we believe that in order for students to be successful 21st century learners, the need to provide students with 24/7 access to learning through the use of iPads (or like devices) and access to technology at home or school is essential. This is the basis for our 1-1 plan which began in the 2012-13 school year with incoming 7th grade students. Under our current plan and budgeting model, all students grades 7-12 will have iPads (or like devices) by the 2017-18 school year.

The total number of district classrooms (according to our SIS) in which NCLB core subjects may be taught is 1435. The total number of computers in classrooms (SIS, 2013) is 5,859. Since the SIS count of computers in classrooms includes all classroom types (including dance, weight rooms, locker rooms, etc.) this means that the average number of computers per classroom is 4.1. And since one computer in each classroom is on the teacher's desk, the average number of student-accessible computers in each classroom is less than 3.1. In practice, we find that some teachers have mini-labs, and some teachers have no student accessible computers.

All teachers have a desktop computer but most are older than four years. Our current plan includes refreshing more than 2000 teacher desktop computers to provide teachers with technology suitable for accessing Power School, Jupiter Grades, Canvas (LMS), as well as online courseware, streaming media, and other cloud tools.

All middle and high schools have at least two computer labs, usually with about 40 computers. Our current plan includes adding content authoring stations in school libraries where teachers and students can create iBooks and other electronic materials for use with iPads and mobile devices.

The majority of school sites (especially those who have been modernized) have LCD projectors in classrooms either ceiling mounted, on carts or with a Smart Board.

Most science labs have probeware allowing students to take measurements and analyze data.

All math classrooms have access to class sets of standard or graphing calculators appropriate to the curriculum.

The Assistive Technology Department deploys a wide range of technologies including AlphaSmarts, sound reinforcement systems, and word prediction and speech software as requested by IEP teams, SSTs, and teachers.

Network and Infrastructure (see Appendix E)

The Network Operations Center (NOC) is the facility that houses infrastructure for the current Student Information System, Business System, Unified Messaging System, and Web Server. The NOC also serves as the district's CIPA-compliant, filtered portal to the Internet with a connection speed of 2 GBPS to the Internet. Schools connect to the Internet via a fiber network through the district's filter at a bandwidth of 250 Mbps with one site at 100 Mbps. There are four exceptions that have a 1.5 Mb connection - all satellite campuses with fewer than 10 students. 100% of classrooms have Internet access. See Appendix E for a detailed description of the current network conditions at each site.

Electronic Learning Resources

Teachers and administrators in the District still use the electronic learning assessment resource, DataDirector. Data Director allows disaggregation and viewing of both standardized and self-created test data. Data Director has helped teachers focus on more differentiated teaching strategies by examining data within Data Director. However the system is not user-friendly and has not anticipated the emergence of Web 2.0 and beyond data tools that are completely integrated with user-oriented management systems like Canvas (LMS). We are currently reviewing the usefulness of Data Director and determining what data management tool(s) should be considered given our adoption of Canvas (LMS), Jupiter Grades, and courseware technologies aimed at providing students, teachers, and parents with easy to acccess and understand comprehensive information about students' academic lives.

The District has used Read 180 as a reading and literacy system aimed at English learners and special education students. The district piloted this program in 2007-2008 and placed the necessary servers at all sites and at the district NOC. Read 180 use continued through 2013-14 but is under review given the District's efforts to prepare students for Common Core standards and rigorous A-G courses.

Across the district, programs such as Achieve 3000, Revolution, and Read 180 (reading and English) are implemented consistently in support classes at comprehensive and alternative sites for California High School Exit Exam (CAHSEE) support, and reading and English instruction. These products are all vendor-hosted, and require no more than the currently-available network bandwidth. The use of vendor hosted products aimed at targeted support for specific groups of learners continues to be a priority in our technology planning - however, the vendors are facing

increasing competition. This has resulted in the District being able to make more budget-friendly choices about who to use. It has also given us more leverage in determining which products are going to be maintained and which should be replaced in exchange for something better.

With the advent of iPads, the District is requiring digital packaging for new textbook adoptions as well as supplemental materials in core subjects. In addition, there are many free online resources such as CK-12.org that offer A-G approved digital materials for use in high school courses. These digital textbooks are common core aligned, customizable (as flexbooks) and interactive for students.

Telecommunications

All staff have email accounts with voice, fax, and file sharing capability through Outlook, the district's Unified Messaging System. Students have District provided Google Drive accounts that include 15GB of cloud file storage, productivity tools, and g-mail accounts. Teachers also have Google Drive accounts but continue to use Outlook for e-mail messaging.

Technical Support

There are several types of technical support available to all staff.

- Information Technology Support Technicians: Twenty five full-time employees make regularly scheduled visits to 30 school sites and the district office to install, repair, configure, and maintain computer equipment. Most technicians that are assigned to schools must support both a middle and a high school.
- A centralized Help Desk phone number has been published to all staff. Six full-time and four part-time employees trained in multilevel technology support are available by phone and email during business hours.
- Two Educational Technology Specialists focus on technology integration, but often solve classroom technical problems in the process. They are available to classified and certificated employees by email, Adobe Connect synchronous web meeting, or phone request.
- The Information Technology Department houses additional technical support personnel.
- Five full-time employees administer the Network Operations Center and provide other district-wide support functions.
- Five full-time programmers and report writers support the student information system.

b. 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.

The passage of Proposition "O" by the district's voters, a \$644 million bond has brought significant and much-needed funding for modernization and new construction to the district. Classrooms in older schools are in the process of being brought into compliance with minimum data, voice, and power standards established in the district's 2007 Long Range Facilities Master Plan (LRFMP). See Appendix D. The 2008-2011 Tech. Plan has seen the completion of Phase I and the initiation of Phase II of a four-phase project. The oldest and neediest schools are included in the first two phases of the plan.

The LRFMP establishes minimum infrastructure equalization criteria that will be implemented at all sites by 2017. During the term of this Educational Technology Plan, some classrooms will be brought into compliance with minimum IT standards defined in the LRFMP and some will not. However, 98% of classrooms currently have Internet access and all have at least two duplex outlets for electrical power. Since our curricular goals require a four-to-one student to computer ratio in core-subject classrooms, a creative, scalable solution is required within the context of current infrastructure.

Student- and Teacher-Accessible Technology Hardware

Students and teachers need access to technology tools that allow them to achieve the teaching and learning goals defined in section three. With 1435 core-subject classrooms in the district, and a current ratio of 1.6 student-accessible computers per classroom, we believe the best way to move forward with providing equitable access to technology is to equip students with mobile devices they can use at school and at home. We will continue to purchase classroom computers and furnish computer labs - especially to support ROP and Career Technical education programs where specialized computing software is required. However, mobile computing in a 1-1 environment will consume 7-8 million dollars in District funds annually through the entirety of this plan. This includes a substantial upgrade to wireless infrastructure at all schools scheduled for completion in December of 2015.

Wireless computing in a 1-1 program will provide teachers and students with the tools they need to achieve the curricular goals outlined in section three.

Electronic Learning Resources

Across the district, programs such Achieve 3000, Shmoop, Apex, Revolution, and Read 180 (reading and English) are implemented consistently in support classes at comprehensive and alternative sites for California High School Exit Exam (CAHSEE) support, and reading and English instruction. These products are all vendor-hosted, and require no more than the currently available network bandwidth. The use of vendor hosted products aimed at targeted support for specific groups of learners will grow in priority as our technology planning proceeds. However vendors are facing increasing competition. This has resulted in the District being able to make

more budget-friendly choices about who to use. It has also given us more leverage in determining which products are going to be maintained and which should be replaced in exchange for something better.

With the advent of iPads, the District is requiring digital packaging for new textbook adoptions as well as supplemental materials in core subjects. In addition, there are many free online resources such as CK-12.org that offer A-G approved digital materials for use in high school courses. These digital textbooks are common core aligned, customizable (as flexbooks) and interactive for students.

Due to the shift toward 1-1 computing devices and the advent of new common core standards, the District is in the process of re-evaluating legacy products such as Director. We believe that we are 2-3 years away from a completely integrated solution (LMS-like) where all stakeholders will be able to "live and work" online with access to: assessments, dashboard data, intervention tools, instructional strategies, blended and online courses, and 24/7 support for students. We want to be suitably position so that when that product emerged, we will (as a result of our planning) be able to move the organization over seamlessly with a minimum of new training.

Network and Infrastructure

Working together with Cox Communications, the district has established 250 Mbps fiber connections to all sites that have more than 50 students. Our intranet works well. During the term of this plan, we currently have 2Gbps bandwidth for our Internet connection with the possibility of increasing to 10 Gbps during the timeline of this Tech Plan.

The single largest project in this plan is found in the needed wireless infrastructure upgrades (mainly in 2013-14, 2014-15). The projected date of completion for wireless infrastructure upgrades to all schools is December 2014. This timeline is dependent upon how much e-Rate funding we are eligible for. We cannot start infrastructure upgrades until after July 1, 2014 on schools where we believe we are likely to receive e-Rate funding.

Telecommunication

As seen in Appendix E, the current telecommunication system is a hybrid of several vendors and protocols. While fully functional within the context of our Unified Messaging System, telecommunication technologies and protocols will be standardized across all district facilities during the term of this plan in order to consolidate equipment types and realize economies of scale. All teachers will have a classroom phone.

Electrical Power

Many older classrooms have insufficient or inconveniently placed power outlets. The equalization standards in the Long Range Facilities Master Plan require each standard classroom to have four 20-amp circuits and three additional duplex power outlets located in two corners near the ceiling, and centrally in the ceiling for a projection system. About 60% of classrooms currently meet these criteria.

Technical Support

This plan calls for an annual increase in the number of iPads at each school site. Since the current support level is acceptable, our goal is to maintain the current ratio of school-site technicians to computers. Our goal is to ensure that the ratio does not exceed 800 to 1.

c. Benchmarks and timeline for obtaining the hardware, infrastructure, learning resources and technical support required to support the other plan components as identified in section 5b.

The following goals define infrastructure needs that support the curricular and professional development goals of this plan. Some infrastructure benchmarks are based on the current site modernization schedule.

Goal 1: We will ensure exemplary learning environments throughout the district.

Objective

5c.1

By June 2017, 100% of students will have iPads (or like devices) with District wireless infrastructure to manage 3 devices per user.

Leadership

Chief Facilities Executive

Funding

General Fund/Prop O/CFD/E-Rate

Benchmarks and Timeline

By June 2015 50% of students have iPads (or like devices) with District wireless infrastructure to manage 1 device per user.

By June 2016 70% of students have iPads (or like devices) with District wireless infrastructure to manage 2 devices per user.

Implementation and monitoring

| Implementation Plan and Activities | Responsible Person | Timeline | Monitoring and Evaluation Activities |
|--|--|---|---|
| Information Technology Department conducts district audit of available computers. | Director of Educational Technology/IT supervisors in hardware and application support | Start January of 2014 and repeated all three years of plan. | Report to Cabinet by end of March 2014. |
| Priorities are established for which grade levels and subject areas have the greatest need, and these will | Director of Educational Technology/IT supervisors in hardware and application support | June of each year | Review with cabinet and report to Superintendent. |

| be targeted in year 1, with additional needs to be phased in during years 2 and 3. |
|--|
|--|

Objective

5c.2

By June 2017, 100% of teachers have iPads and 100% of teacher desktops are replaced

Leadership

Director of Educational Technology/IT supervisors in hardware and application support

Funding

General Fund/Prop O/CFD/Common Core

Benchmarks and Timeline

By June 2014, 100% of teachers have iPads and 70% of teacher desktops are replaced

By June 2015, 100% of teachers have iPads and 85% of teacher desktops are replaced

By June 2016, 100% of teachers have iPads and 100% of teacher desktops are replaced

Implementation and monitoring

| Implementation Plan and Activities | Responsible Person | Timeline | Monitoring and Evaluation Activities |
|---|--|--|---|
| Provide iPads to teachers, begin installing desktop replacements in classrooms beginning with high schools. | Director of Educational Technology/IT supervisors in hardware and application support | Beginning March 2014 and ongoing through each year of this plan. | Ensure purchase orders meet requirement |

d. Process that will be used to monitor Section 5b and the annual benchmarks and timeline of activities including roles and responsibilities

The SUHSD Strategic Plan requires frequent evaluation of progress toward meeting all the outlined strategies. Specific cabinet members are responsible for each strategy and its goals. The Director of Information Systems and the Assistant Superintendent of Facilities have overall responsibility for implementing the infrastructure goals of this plan.

Quarterly meetings are held to review status of implementation with stakeholders and to update the Superintendent's Cabinet. As our technology objectives are embedded into the Strategic Plan, they will also be subjected to verification of implementation at Cabinet level.

FORMULA GUIDELINES EETTF10CRIT.DOC

For activities that fall under the site modernization plan outlined for the district's Prop "O" (Long Range Facilities Master Plan), walk-throughs are scheduled to monitor each phase of the plan implementation.

In addition, site-based technical support personnel play a critical role reporting the success level of implementation. These individuals work closely with teachers and site administrators in resolving technology issues.

The process to monitor the goals, objectives, benchmarks, and planned implementation activities are outlined in the tables for each objective in section 5c.

6. BUDGET

SUHSD is committed to providing technology as a tool so that users can be as effective as possible in increasing student achievement. The monetary commitment from the district for the implementation of technology for the life of this plan is substantial and will require the organization to effectively communicate its vision for 21st century learning as well as engage all stakeholders.

SUHSD is an associate member of the North County Educational Purchasing Consortium, an organization of 43 local school districts who participate in cooperative purchasing agreements. Additionally, the governing board has adopted a resolution allowing for participation in State contracts and California Multiple Award Schedules (CMAS) agreements.

a. List of established and potential funding sources

The district will continue to fund technical support for equipment and systems. E-rate provides 80 - 90% of the telecommunications and Internet costs. The district's Grants Department, together with other departments, continually research new grant opportunities to augment the district commitment.

The single largest cost in this plan is found in the wireless infrastructure upgrades (mainly in 2013-14, 2014-15) and iPad device lease agreements. The next largest cost associated with this plan comes from maintaining and upgrading our current information systems and network, and from providing technical support for existing and future hardware at an acceptable level. These expenses are rising, but are clearly and directly supported by the district's Strategic Plan commitment to exemplary learning environments.

For students with special needs, assistive technology is available to the district through California Assembly Bill 602 for special education students with low-incidence disabilities. Those who are not special education students and who need devices are provided for under the Americans with Disabilities Act, Section 504.

In addition, the following companies are partners with the Sweetwater District and are positioned to contribute to the expansion of educational technology: Citrix, Compaq, Cox Cable, Dell, Apple, Pearson, and Instructure.

b. Estimated Implementation Costs

The estimated cost for the years encompassed in this multi-year budget is outlined in red below.

| | 2015/16 | | 2016/17 | | 2017/18 |
|----|-----------|--|---|---|--|
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| | | | | \$ | 1,494,000 |
| | 6,700 | | 6,700 | | 6,700 |
| \$ | 1,494,000 | \$ | 1,494,000 | \$ | 1,494,000 |
| | 6,700 | | 6,700 | | 6,700 |
| | | | | | |
| \$ | 6,700 | \$ | 6,700 | \$ | 6,700 |
| | 6,700 | | 6,700 | | 6,700 |
| | | | | | |
| \$ | 196,980 | \$ | 256,760 | \$ | 316,540 |
| | | | | | |
| | | | | | |
| \$ | 270,060 | \$ | 283,500 | \$ | 297,780 |
| \$ | 244,150 | \$ | 244,150 | \$ | 244,150 |
| | | | | | |
| \$ | 65,000 | \$ | 65,000 | \$ | 65,000 |
| \$ | 57,517 | \$ | 59,816 | \$ | 62,209 |
| \$ | 422,000 | \$ | 422,000 | \$ | 422,000 |
| | | | | | |
| \$ | 106,000 | \$ | 106,000 | \$ | 106,000 |
| \$ | 7,475,857 | \$ | 7,419,926 | \$ | 8,990,379 |
| 0 | \$ | 0 \$ 422,000 0 \$ 106,000 5 \$ 7,475,857 | 0 \$ 422,000 \$ 0 \$ 106,000 \$ 5 \$ 7,475,857 \$ | 0 \$ 422,000 \$ 422,000 0 \$ 106,000 \$ 106,000 5 \$ 7,475,857 \$ 7,419,926 | 0 \$ 422,000 \$ 422,000 \$ 0 \$ 106,000 \$ 106,000 \$ 5 \$ 7,475,857 \$ 7,419,926 \$ |

While the iPad initiative is the focus for district wide technology planning and implementation over the course of this three year technology plan, established funding (i.e. General, Common Core, Title II) will continue to support the long term and ongoing costs of technology, including curriculum and library materials, integrated data management, professional development, and technical support personnel.

Budgets for information technology to support existing infrastructure include general fund expenses of:

Information Technology Office - \$917,826 Information Systems - \$4,855,645 Data Management Systems - \$719,200 Data Processing - \$282,690 Communication and Utilities - \$1,988,447

Additionally, approximately 4 million dollars in common core funds will be spent on curriculum and instruction in the 2014-15 school year to support teacher professional development, digital learning tools, and instructional materials.

c. Replacement policy for obsolete equipment

As funding becomes available, obsolete equipment is being replaced. We have budgeted 2.4 million dollars to begin the replacement of teacher desktops. The lion's share of funds for technology are being dedicated to the lease and maintenance of iPads. Classroom computers for students use will not be replaced due to our 1-1 plan. Lab computers will be replaced in subsequent years as funding sources i.e. CTE/ROP are identified and programs developed that support A-G, Career Technical Education, and STEM programs like Project Lead the Way.

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

Annual budget reviews combined with the clear focus on technology in the goals of the district's strategic plan assure that acquisition and replacement of technology resources holds a high priority regardless of the level of state funding to the district.

A primary mission of the district's Grants and Communications Department is to seek out potential funding and take the necessary steps to receive it.

7. EVALUATION

a. Process for evaluating the plan's overall progress and impact on teaching and learning

As outlined in sections 3-6, the SUHSD Strategic Plan requires frequent evaluation of progress toward meeting all of its strategies. Formative evaluation is embedded in benchmarks for each objective.

Specific cabinet members are responsible for each strategy and its goals. The Executive Director of Curriculum and Instruction has overall responsibility for implementing the curricular goals of this plan. The Director of Educational Technology oversees the professional development goals. The Chief Facilities Officer is responsible for infrastructure goals.

We are engaged with USD, Apple and other education partners to measure the impact of 1-1 on student learning. We believe that by being the subject of targeted research as part of a larger study of 1-1 learning outcomes, we will be able to support our long term technology goals with student performance data that demonstrates a positive return on investment. Having said that, we also realize that this technology plan is part of a larger, more systemic change in education (nationwide) and that new standards, new assessments, and the push for more rigorous, relevant experiences in core subjects that are student-centered represent a substantive departure from previous years under NCLB. It may be difficult, therefore, to isolate the real benefits of technology based learning since there are other changes underway (i.e. performance based lessons and assessments) that will influence how students perform. One question to consider is, will our 1-1 initiative fundamentally change how teachers and students work together and will we be able to measure shifts in attitude and approaches to teaching and learning in ways that will inform our thinking about how to process beyond this plan?

b. Schedule for evaluating the effect of plan implementation

The SUHSD Strategic Plan requires frequent evaluation of progress toward meeting all of its strategies. Quarterly meetings are held to review status of implementation with stakeholders and to update the Superintendent's Cabinet. Because our technology objectives are embedded into the Strategic Plan, they will be subjected to verification of implementation at Cabinet level.

Evaluation timelines are described in each of the plan sections, 3 - 6.

c. Process and frequency of communicating evaluation results to tech plan stakeholders

Internal communications methods - dissemination of progress toward plan goals and gathering feedback - are described in sections 3 - 6, along with their frequency.

A feedback loop provides regular two-way communication on progress toward plan goals among the Superintendent's Cabinet and principals who relay information to and from their site-based Professional Learning Communities (PLC). In addition, several of the electronic learning resources we

are deploying have internal feedback mechanisms. The district's focus on PLCs that use data to drive instruction will keep information from these systems at the forefront.

Parents and community members receive annual updates at Educational Summit meetings held each fall. They can find the most up-to-date information at the district's website, http://www.sweetwaterschools.org including news flashes, reports on special programs, and reports from the Citizen's Bond Oversight committee regarding the state of current school modernization projects. With the push toward constant communication via Canvas and Jupiter Grades, parents can also access information specific to their child via text, e-mail, telephone or all of the above.

8. ADULT LITERACY

a. Description of the adult literacy program

Adult Literacy Providers: The Sweetwater Union High School District Division of Adult Education provides adult literacy courses throughout the communities served by the district. With four adult education campuses and various community-based classrooms, the Adult Education division offers classes that are close and accessible to all residents of the South Bay. An open entry/exit admission policy helps adults find and attend classes that are convenient for their busy schedules.

Adult literacy course offerings

- English as a Second Language: Adult students in these classes focus on language acquisition as they gain English skills in listening, speaking, and reading. The curriculum of these classes addresses workplace readiness, community involvement, lifelong learning, and technology literacy. Students' progress is measured by the Comprehensive Adult Student Assessment System (CASAS), which is used nationally and held as the accepted assessment tool for federal and state grant funding.
- Adult Basic Education (ABE): In these classes, students focus on mastering reading, writing, and math competencies, as well as critical thinking skills. At most campuses, teachers work with counselors and students to diagnose skill levels and create education plans which support the students' learning continua from basic classes to higher level education and employment gains. Students in this program typically transition into high school subjects, GED classes, or CTE classes. Students are placed into the ABE program after taking an orientation and placement test, the Test of Adult Basic Education (TABE), a nationally recognized est. Computer literacy is taught in the ABE classrooms and the majority of the ABE reading classes contain a mini computer lab.
- Adult Secondary Education (ASE) High School Diploma and GED: Adult students in these classes work toward either earning a high school diploma or passing the GED tests. Courses at this level are aligned with the district's 7-12 division and adhere to the state content standards. All ASE classrooms use technology for skill practice, subject enhancement, and research projects.
- Supplementary funding is provided to adult education through the federal Workforce Investment Act Title II Grant (Section 231 - English Literacy and Civics Education). This grant augments state funding and is intended to provide resources, which support student learning and literacy.
- The Adult Education division also works closely with other literacy providers in the community, including city libraries in National City, Chula Vista, Imperial Beach and San Diego. A teacher on special assignment regularly serves as a member and liaison to the San Diego Council on Literacy (SDCOL), and serves as an executive board member on that council. Students who need one-on-one literacy tutoring are routinely referred to library tutoring programs. Teachers are invited and encouraged to attend the Tutor Conference held each spring by the SDCOL network.

Collaboration on planning and implementation

Adult Education division Director Linda Carlton and Crystal Robinson, a teacher on special assignment who is also the division's team leader for the technology planning team, meet with the Education Technology Director in updating the district's technology plan. They have provided additional data in addressing the criteria for the updated plan.

Adult Education courses are subject to the same rigorous academic standards as courses within the district's 7-12 curricula. To enhance their professional development, adult education teachers are invited to attend many of the district's professional development workshops. Many teachers in the core areas have studied the instructional strategies of Specially Designed Academic Instruction in English (SDAIE). These strategies are instrumental in the teaching of adult literacy. Many of the trainings are held at the Professional Development Center housed on the Montgomery Adult School campus. Other partnership examples within the district include the Adult Education division's use of classrooms on district middle school and high school campuses, in addition to use of the Educational Technology Center for training. The district also provides instructors for the division's annual Technology Academy. Together, these partnerships offer resources that provide a robust adult literacy program for adult learners throughout the community.

Adult Literacy Outcomes

The district technology plan, which includes the adult division technology plan, provides for the planning, development, and implementation of activities, which are consistent with achieving adult literacy student outcomes.

Technology is used consistently in adult school classrooms. Students and teachers incorporate Microsoft Word, Internet research and PowerPoint presentations in their projects and instruction. Furthermore, the use of technology is embedded in all of the course outlines and curricula.

Teachers on special assignment and on-site IT technicians help teachers incorporate more technology into teacher lesson plans. Some projects and lesson plans have been placed online for access by all teachers.

Distance Learning courses in all program areas are required to have a technology component. Students complete work from home, learning from various instructional software and DVDs.

Three of the four adult schools have dedicated computer labs solely for use by ESL students. There are Mini Labs for secondary ABE students and selected ASE classrooms have a cluster of computers for student use. The fourth school supports ESL students with a roving computer lab consisting of laptop computers that can either be moved to each classroom or set up in the school's professional development center. All four schools have dedicated computer labs for their vocational courses.

Through the use of technology, students learn to use necessary tools found in the workplace and in their children's classrooms. Differentiated instructional delivery helps students develop knowledge and skills necessary for life in the 21st century.

Cooperation and Sharing of Resources:

The division's technology planning committee works annually with the teacher on special assignment in charge of the English Literacy/Civics component of the Workforce Investment Act Grant. A requirement of the grant is to annually evaluate and update the division's plan for technology use in direct support of the classroom. The committee works to identify needs and recommend purchases. The plan addresses both cooperative planning among sites in the division as well as the sharing of available resources.

The Adult Division utilizes a variety of funding sources to maximize the purchase and implementation of technology. This includes school site discretionary budgets, Adult Division base revenue budget, Workforce Investment Act Section 231 (WIA) budget and Carl Perkins Career and Technical Education

131 (CTE) budget. The Adult Division also funds three full time computer technicians who serve the four sites. In a collaborative effort, the district provides network services as well as technical support and ongoing maintenance.

9. RESEARCH

a. Summary of relevant research and description of how it supports the plan's curricular and professional development goals.

1-1 Learning in K-12

At ISTE 2010, Project RED announced the results of an ambitious national survey focused on the impact of various 1:1 implementation models on student learning, drop-out rates and much more.

What impact is one-to-one computing having on schools nationwide? What are the factors that determine successful outcomes? And how affordable are such programs in the long run? These are the questions that Project RED, a research team headed by the One-to-One Institute and the authors of the *America's Digital Schools* reports, set out to answer through an extensive survey of U.S. schools.

Project RED surveyed principals and technology coordinators at 997 schools that are representative of U.S. education in terms of enrollment, geography, poverty-level and ethnicity. With questions focused on 136 independent variables in 22 categories, the study analyzed a number of success factors including:

- High-stakes test scores;
- Disciplinary action and dropout rates;
- Teacher attendance;
- AP course enrollment and college attendance plans;
- Course completion and graduation rates for high school students;
- Cost-savings from such factors as reduced paperwork.

The Project RED Team announced its findings at the ISTE 2010 conference in June. Overall, the study found that schools with a 1:1 student-to-computer ratio outperform non-1:1 schools on both academic and financial measures. For example, schools with 1:1 programs reported a 15-point reduction in disciplinary actions and a 13-point decrease in dropout rates as compared to all other schools.

Equally important, the survey shows that a number of variables can enhance the benefit of 1:1 programs. "The most exciting findings," says Tom Greaves, CEO of the Greaves Group and founder of the initiative, "were identification of which implementation factors improve learning outcomes." The Project RED researchers found that 1:1 schools employing what they refer to as "proper implementation factors," outperformed all others.

Best Practices for 1:1 Implementations

According to Project RED, in addition to formative assessment and teacher collaboration, other best practices contributing to "proper implementation" included:

- * Daily implementation in all classes: The most significant improvements were found in settings where technology was included in intervention classes. In fact, the researchers found that technology-infused interventions (ELL, Title I, Special Ed and Reading Intervention) were the top model predictor of improved high stakes test scores, dropout rate reduction, and improved discipline. Daily use of technology in core classes, for students at all levels of ability, is the third most important factor. Taken together, these results make clear that regular use of the technology is central to success.
- * A school principal who leads change management: The Project RED analysis showed that having a principal who models and leads technology usage is another important element of an effective 1:1 program. Principal leadership is the second most significant factor in reducing dropout rates and the single most important variable across several of the other education success measures. This finding suggests that change management training for principals involved in large-scale technology implementations is of paramount importance.
- * The Use of Games/Simulations and Social Media: The Project RED researchers cite the use of Web 2.0 games and social media for collaboration, mentoring and student engagement as yet another element of a successful program, explaining that, "Leveraging the curiosity and highly social nature of students keeps them in school." Along these same lines, virtual field trips were included in the list of best practices that increased student engagement and enhanced results.

* An Investment Not an Expense

Two financial factors were identified by the Project RED team as off-setting the costs that many associate with 1:1 computing. Most dramatically, there is the cost-savings that comes from reducing dropout rates. As the Project RED summary puts it: "The huge economic cost of dropouts is well known. The difference in lifetime tax revenues between a dropout and a college graduate is approximately \$200,000. If 25% of dropouts actually graduated from college, the increase in tax revenues would be \$6.25 Billion per year per graduating class. Schools with a 1:1 student/computer ratio are cutting the dropout rate and reaping this broader benefit."

On another front, there are the cost-savings associated with reduced printing, copying and paper usage. According to Project RED, "It is estimated that high schools where every student has a computer and which use an LMS could cut copy budgets in half. On a national basis that would equate to savings of \$400M a year for high schools alone."

Overall, the benefits offered by 1:1 and the savings that it can generate lead the researchers to suggest that such technology programs should be viewed as an "investment" not an "expense." Moving Towards Best Practices

According to Project RED, "The daily use of technology in core classes correlates highly to desirable Education Success Measures [and] was one of the top five indicators of better discipline, better attendance, and increased college attendance." And yet, many 1:1 schools reported using the technology only weekly or less frequently for many classes. In fact, the researchers concluded that 80 percent of schools under-utilize technologies they have already purchased.

Curriculum

The SUHSD Educational Technology Plan describes how the district will use research-based strategies to address the needs of all students to meet or exceed state standards by using technology to complement and enhance a rigorous academic curriculum. The major research-based components to Sweetwater's Educational Technology plan are:

- It is vital that all students acquire technology and information literacy skills.
- Students and educators must have access to technology tools to enhance the learning environment.
- Effectively integrating technology into a rigorous academic curriculum raises student outcomes.
- Technology that differentiates instruction is highly effective.
- Analysis of assessment data for individual student, class grouping, and entire school sites can drive classroom practice toward more effective teaching.
- Enhancing the home/school connection increases opportunities for student success.

Skill Acquisition: The U.S. Department of Commerce and the U.S. Department of Education announced the formation of the Interagency Working Group on Advanced Technologies for Education and Training (Ed.gov. 2004) to foster the development, application and deployment of advanced technologies in education and training in the United States. Phillip Bond 2008 President & Chief Executive Officer of the Information Technology Association of America (ITAA) said;

"America's competitiveness in the knowledge-based economy depends on the skills and abilities of our workforce. In the face of intense global competition, nations around the world are competing for jobs and economic growth by developing a world class workforce. To compete and win, our workers need broad and rapid access to high-quality knowledge and skills development from K to gray."

Access to Equipment: Research has shown that students who have access to and use computers on a regular basis show consistently higher gains in standardized test scores than students who do not have access to computers. In studies of computer-assisted instruction that provided students with extended opportunities to practice *reading* or solving *mathematics* problems it was found that the use of these technologies has been associated with gains in basic skills achievement (Kulik & Kulik, 1991).

Integration: Technology will have the greatest impact on student learning when integrated into the curriculum to achieve clear, measurable educational objectives (Hawkins, Panush, & Spielvogel, 1996) Research has shown that effective integration of technology into the curriculum can be used as a catalyst for change in the learning environment. Technology has been positively linked to increasing student motivation, learner engagement, communication/collaboration, and problem-solving skills (Sandholtz et al., 1997; Ringstaff & Kelley, 2002).

In addition, a West Virginia study found that, technology integration can increase test scores when curriculum objectives for basic skills development in reading and mathematics are integrated with instructional software and the curriculum is then reinforced by teacher instruction. (Mann, Shakeshaft, Becker, & Kottkamp, 1998).

Differentiating instruction: Software tools such as Read 180 and Accelerated Reader promote a highly *personalized learning environment* with many opportunities for feedback and they clearly

enhance and enrich the student learning opportunities. The research behind using software tools that can provide individualized instruction is clear. "Intelligent tutor software that *supports curriculum* has been shown to improve learning" (Koedinger, Anderson, Hadley, & Mark, 1997). This is because, "expert tutoring software presents instruction in small, sequential steps, at varying levels of difficulty, and students can use the software independently, working at their own pace." (Bos & Vaughn, 1994). This type of courseware helps support *all* students, including ELL and special education students. The Center for Applied Research in Educational Technology says, "Technology is most effective for low performing, at-risk, or learning handicapped students when students utilize instructional programs that continuously assess individual performance by adjusting the task difficulty to the ability and experience level of the student" (2003). They go on to say, "Technology improves motivation, attitude, and interest when students use computer applications that adjust problems and tasks to maximize students' experience of success" (2003). Finally, this type of differentiated mastery learning, produces benefits that are *enduring*, not short term. (Davis & Sorrell, 1995)

Home / School connection: Penuel (1999) and his colleagues conducted a meta-analysis of 19 studies that examined home-school communication facilitated by technology and concluded that, "As families' access to advanced computer and telecommunications technologies has increased, new opportunities to forge home-school connections supported by new and advanced technologies have become possible" (2002). A survey conducted by the National School Boards Association (NSBA) concurred saying that parents see the Internet as an important resource for increasing family involvement in schools and that parents reported being very interested in communicating with their children's teachers via the Internet. More than half of all parents surveyed by the NSBA wanted to see their children's schoolwork online and use e-mail to communicate with their local school board (2000).

Professional Development

Teachers must be supported in their efforts to use technology within the context of a rigorous academic curriculum. When properly trained and supported, teachers can effectively use technology to find content-based resources, deliver instruction, and support and enhance curriculum (NEIRTC, 2002) A review of the literature shows "five critical factors" that influence the success of professional development programs: 1) long-term training, 2) on-site support, 3) access to equipment, 4) hands-on, personalized training and 5) sharing through communities of practice (Bradshaw, 2002; Cradler, 1996; Doan-Holbein & Jackson, 1999; Fullan & Stiegelbauer, 1991; National Staff Development Council, 2001; Panel on Educational Technology, 1997).

Sweetwater's professional development plan addresses all five of these factors by using the strategies described in Section 4.

Embedded Training: The National Staff Development Council's Standards for Staff Development (1994) suggest that demonstrations and theory presentations result in very limited use of skills or substantive changes in classroom practice. Adding hands-on practice increases skills transfer, but these skills are seldom tried in the classroom. With the addition of peer coaching and study groups, the NSDC found a 90% skill attainment level and more than 80% application of the new skills in the classroom. This finding is paralleled by Bush's (1984) evaluation of the Joyce and Showers model that includes, after articulation of the vision and skills transfer, support in both the protected and live implementation environments. When the live environment support was included, the change rate jumped to over 90%. Sweetwater's strategy includes support for live integration of technology enhancements to a rigorous academic curriculum.

Sustained Training: "It must be recognized that staff development is not 'finished' when the workshop ends. Teachers must have ongoing support for the implementation of the concepts and skills presented in the initial workshop." (Joyce & Showers, 1995; Murphy & Lick, 2001, p. 8)

Individualized training: The Concerns-Based Adoption Model (CBAM) describes the process an individual goes through in order to incorporate new skills and ideas into daily practice. In the process of moving from nonuse of a technology to complete integration, a user moves through six levels. By adapting training to the individual's level, the professional developer will find greater success. (Hord et al, 1987)

Mandated change: The importance of staff development in the deployment of technology is echoed throughout the literature. Users must be trained and supported through the process of adopting the new technology, and the training must be effective; it must meet the needs of the trainees and result in measurable outcomes. (Bradshaw, 2002; Cooley, 2001; Cradler, 1996; Ely, 1990; Joyce & Showers, 1995; Murphy & Lick, 2001)

Communities of practice: There is widespread recognition of the value of communities of practice for collaborative learning environments for teachers (Bradshaw, 2002; Doan-Holbein & Jackson, 1999; Ely, 1990; Panel on Educational Technology, 1997). Blumenfeld (2000) indicates, "instructional reform requires a school culture that supports professionalism and provides opportunities for sharing, risk taking and reflection among teachers about pedagogy and student learning" (p. 151).

Leadership: Strong leadership is a required component of technology professional development because, "the environment must supply the individual with necessary resources, rewards or incentives, commitment to the project from leaders, and leadership from the top of the organization." (Ely, 1990).

Professional development in the Sweetwater District is based on research that maximizes the use of new equipment and software through skills and integration training, and provides continuing on-site support.

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b. Plan to use technology to extend and supplement the district's curriculum with rigorous academic courses and curricula, including distance learning technologies.

The district's course descriptions define a rigorous academic curriculum that aligns with state standards. A major focus of this plan is to include technology-enhanced strategies and activities as required components of the existing curriculum for core subjects.

As the plan rolls out, the CIA teams using a lesson approval rubric and deploying TLC's lesson vetting capacity will evaluate teacher submitted strategies, lessons and activities for the infusion of the appropriate technologies. The rubric will include activities that address skills as defined in the ISTE NETS-S. By creating a rubric that prescribes specific skills transference within a given core subject at a given grade level, all students who attend grades 7-12 attain the required skills.

The lessons rubric will be reviewed annually by the curriculum CIA teams to assure that the appropriate technology related activities will be written into course descriptions along with a prescribed frequency of implementation. As course descriptions are updated, all teachers will be expected to adhere to the requirements of new, rigorous, technology-enhanced academic curriculum.

Distance Learning opportunities will be provided to students who are unable to meet their curricular needs with courses offered by the district. For example, the district is in the process of implementing vendor developed online classes for credit recovery. As we refine our delivery system, implementation for students on accelerated academic schedules may become part of our online course offerings. Other students at all levels, with specific career aspirations, may benefit from elective courses that are not taught in the Sweetwater District, or not available at schools that don't have the resources to provide a specific class for a limited number of students. Online classes can solve this problem.

The Sweetwater District will make a concerted effort to provide online classes where appropriate and feasible by reviewing and approving a list of online course providers and defining a policies and procedures for when enrollment in an online course is appropriate. As we proceed, this information will be shared with counselors and learning center coordinators. The district will support enrollment of students for whom online classes provide the best option.

Appendix D: SUHSD Long Range Facilities Master Plan

Information Technology Equalization Standards

Technology/Communications/Electrical Standards

2.11.01 Standard Classroom

- a. (4) 4 port data outlets for students
 - (1) 3 port data outlet for teacher
 - (1) 1 port voice outlet for teacher
- d. (1) 2 port data and one duplex power at 12" below ceiling level in corner of each classroom
 - (1) 2 port data and one duplex power for wireless appliance redundant with d
 - (1) Ceiling mounted intercom speaker
- g. (1) Clock

b.

C.

e.

f.

i.

į.

k.

- h. (1) LCD Projection System and Audio Speakers
 - (1) L/R audio, S-Video and return video connection between teacher' desk and television
 - (4) 20-amp dedicated electrical circuits
 - (1) LCD projector ceiling power duplex receptacle and conduit to get to teachers desk for control cabling

2.11.04 SCIENCE LABS - CHEMISTRY, PHYSICS AND BIOLOGY

- a. 2 Drops per peninsula station. Location per District IT Dept instructions
- b. (1) 4 port data outlets for students
- c. (1) 3 port data outlet for teacher
- d. (1) 1 port voice outlet for teacher
- e. (1) 2 port data and one duplex power at 12" below ceiling level in corner of each classroom
- f. (1) 2 port data and one duplex power for wireless appliance redundant with e
- g. (1) Ceiling mounted intercom speaker
- h. (1) Clock
- i. (1) LCD Projection System and Audio Speakers
- j. (1) L/R audio, S-Video and return video connection between teacher' desk and Projector
- k. (14) 20-amp dedicated electrical circuits

Note: Voice port (RJ45) will be 45" from floor with a wall mount phone bracket with mounting studs, and the specified 12 inch clearance around port. Data port will be 18 inches from the floor.

Appendix E: SUHSD State of Network by Site

ITS NOC - Located at 455 Moss St. Primary connection is provided by Cox Internet Services. Currently have 8Gbps Cox TLAN service coming in from our internal campuses and a 2Gbps ISP connection. Current phone system is a Nortel CS.

SUHSD D/O - Primary connection is provided by Cox TLAN Services. Currently have a 250Mbps TLAN circuit with the possibility of increasing to 1 Gbps in the 2014-15 year. This site connects to the ITS NOC. Current phone system is a Nortel Option 81C.

Alta Vista Academy - Primary connection is provided by Cox TLAN Services. Currently have a 250Mbps TLAN circuit with the possibility of increasing to 1 Gbps in the 2014-15 year. This site connects to the ITS NOC. Current phone is Centrex with no system.

Bonita Vista Middle - Primary connection is provided by Cox TLAN Services. Currently have a 250Mbps TLAN circuit with the possibility of increasing to 1 Gbps in the 2014-15 year. This site connects to the ITS NOC. Modernization has been completed for the 200, 300, 400, 500 south, and 600 South buildings. Current phone system is a Nortel Option 11C. Phones are digital and Spectralink Wireless Phone system.

Bonita Vista High - Primary connection is provided by Cox TLAN Services. Currently have a 250Mbps TLAN circuit with the possibility of increasing to 1 Gbps in the 2014-15 year. This site connects to the ITS NOC Modernization has been completed for the 200, 300, 400, 500, and 600 North buildings. Current phone system is a Nortel CS1000E. Phones are partial VOIP and digital.

Castle Park Middle - Primary connection is provided by Cox TLAN Services. Currently have a 250Mbps TLAN circuit with the possibility of increasing to 1 Gbps in the 2014-15 year. This site connects to the ITS NOC Modernization has been completed for the 200, 300, 400, 500, and 600 buildings. Current phone system is Nortel CS1000E. Phones are partial VOIP and digital.

Castle Park High - Primary connection is provided by Cox TLAN Services. Currently have a 250Mbps TLAN circuit with the possibility of increasing to 1 Gbps in the 2014-15 year. This site connects to the ITS NOC Modernization has been completed for the 200, 300, 400, 500, and 600 buildings. Current phone system is a Nortel CS1000E. Phones are partial VOIP and digital.

Chula Vista Adult - Directly connected to ITS NOC via Gigabit fiber uplink. Current phone system is a Nortel 1000E from IT NOC. Phones are digital.

Chula Vista Middle - Primary connection is provided by Cox TLAN Services. Currently have a 250Mbps TLAN circuit with the possibility of increasing to 1 Gbps in the 2014-15 year. This site connects to the ITS NOC. Modernization has been completed for the Main Office, 200, 500, 600, 700, and Multi-Purpose buildings as well as a new Café and Science building just completed. Current phone system is a Nortel CSE 1000. Phones are digital.

Chula Vista High - Primary connection is provided by Cox TLAN Services. Currently have a 250Mbps TLAN circuit with the possibility of increasing to 1 Gbps in the 2014-15 year. This site connects to the ITS NOC Modernization has been completed for the 200, 300, 400, LIB,GPE,GYM,1600 and 600 buildings. A new two story classroom building (1800) has been completed as well as a Preforming Arts Center. Current phone system is a Nortel CS1000E. Phones are partial VOIP and digital.

Eastlake Middle - Primary connection is provided by Cox TLAN Services. Currently have a 250Mbps TLAN circuit with the possibility of increasing to 1 Gbps in the 2014-15 year. This site connects to the ITS NOC. Current phone system is CSE 1000S Branch Office. Phones are VoIP using Cisco switches.

Eastlake High - Primary connection is provided by Cox TLAN Services. Currently have a 250Mbps TLAN circuit with the possibility of increasing to 1 Gbps in the 2014-15 year. This site connects to the ITS NOC. Current phone system is Nortel CSE 1000. Phones are digital.

Fifth Avenue Academy - Directly connected to D/O LAN via 100MB uplink. Phones are connected to D/O phone system.

Granger Junior High - Primary connection is provided by Cox TLAN Services. Currently have a 250Mbps TLAN circuit with the possibility of increasing to 1 Gbps in the 2014-15 year. This site connects to the ITS NOC. Modernization has been completed for the 200, 300, 400, and 600 buildings. A new Library was built approximately 5 years ago. Current phone system is a Nortel Option 11C. Phones are digital and Spectralink Wireless Phone system.

Hilltop Middle - Primary connection is provided by Cox TLAN Services. Currently have a 250Mbps TLAN circuit with the possibility of increasing to 1 Gbps in the 2014-15 year. This site connects to the ITS NOC. Modernization has been completed for the 100, 200, 300, 900, and IA buildings. Current phone system is a Nortel Option 11C. Phones are digital and Spectralink Wireless Phone system.

Hilltop High - Primary connection is provided by Cox TLAN Services. Currently have a 250Mbps TLAN circuit with the possibility of increasing to 1 Gbps in the 2014-15 year. This site connects to the ITS NOC. Modernization has been completed for the 200, 300, 400, and 500 buildings and nearing completion of the 600, 700, and 1200 buildings. A new two story classroom building (1400) has been completed as well. Current phone system is a Nortel CS1000E. Phones are partial VOIP and digital.

MAAC Charter - Primary connection is provided by Cox TLAN Services. Currently have a 250Mbps TLAN circuit with the possibility of increasing to 1 Gbps in the 2014-15 year. This site connects to the ITS NOC. Phone system not maintained by SUHSD.

Mar Vista Academy - Primary connection is provided by Cox TLAN Services. Currently have a 250Mbps TLAN circuit with the possibility of increasing to 1 Gbps in the 2014-15 year. This site connects to the ITS NOC. Modernization has been completed for the 200, 300, and 400 buildings. Current phone system is a Nortel Option 11C. Phones are digital and Spectralink Wireless Phone system.

Mar Vista High - Primary connection is provided by Cox TLAN Services. Currently have a 250Mbps TLAN circuit with the possibility of increasing to 1 Gbps in the 2014-15 year. This site connects to the ITS NOC. Modernization has been completed for the 100,200,300, and1000 buildings as well as an modern edition to the Café is near complete. A new Gym building has been completed as well. Current phone system is a Nortel CSE 1000.Phones are digital.

Montgomery Middle - Primary connection is provided by Cox TLAN Services. Currently have a 250Mbps TLAN circuit with the possibility of increasing to 1 Gbps in the 2014-15 year. This site connects to the ITS NOC.

Modernization has been completed for the 400 and 500 buildings and in starting phase of 200,300,Café,Lib, and Counseling center modernizations. Current phone system is a Nortel CS1000E. Phones are digital.

Montgomery High - Primary connection is provided by Cox TLAN Services. Currently have a 250Mbps TLAN circuit with the possibility of increasing to 1 Gbps in the 2014-15 year. This site connects to the ITS NOC. Modernization has been completed for the 200, 300, 400,1200 and Drama buildings as well as a new 2 story classroom/Library and new Learning Center are nearing completion. A new Adaptive/Wrestling building has been completed as well. Current phone system is a Nortel CS1000E. Phones are partial VOIP and digital.

Montgomery Adult - Primary connection is provided by Cox TLAN Services. Currently have a 250Mbps TLAN circuit with the possibility of increasing to 1 Gbps in the 2014-15 year. This site connects to the ITS NOC. Modernization has been completed for all of the relo buildings. Phone services are connected to MOH phone system. Phones are VOIP.

National City Adult - Primary connection is provided by Cox TLAN Services. Currently have a 250Mbps TLAN circuit with the possibility of increasing to 1 Gbps in the 2014-15 year. This site connects to the ITS NOC. Current phone system is a Nortel CSE 1000. Phones are digital.

National City Middle - Primary connection is provided by Cox TLAN Services. Currently have a 250Mbps TLAN circuit with the possibility of increasing to 1 Gbps in the 2014-15 year. This site connects to the ITS NOC. Modernization has been completed for the IA building. A new Multi-Purpose/PE Building has been completed as well. Nearing completion is a new 200 building which will be a 2 story building. Current phone system is a Nortel Option 11C. Phones are digital and Spectralink Wireless Phone system.

Olympian High - Primary connection is provided by Cox TLAN Services. Currently have a 250Mbps TLAN circuit with the possibility of increasing to 1 Gbps in the 2014-15 year. This site connects to the ITS NOC. Current phone system is a Nortel CSE 1000S. Phones are VOIP using a Nortel backbone separate from the Cisco Data network...

SAILS (Options Secondary) - Directly connected to CVA LAN via Gigabit uplink. Phones are digital connected to the CS1000E in NOC at IT.

Otay Ranch High - Primary connection is provided by Cox TLAN Services. Currently have a 250Mbps TLAN circuit with the possibility of increasing to 1 Gbps in the 2014-15 year. This site connects to the ITS NOC. Current phone system is a CSE 1000. Phones are VOIP using the Cisco switches. Palomar High - Primary connection is provided by Cox TLAN Services. Currently have a 250Mbps TLAN circuit with the possibility of increasing to 1 Gbps in the 2014-15 year. This site connects to the ITS NOC. Modernization has been completed for the Main Office/Classroom building. Current phone system is a Nortel CSE 1000. Phones are digital.

Rancho Del Rey Middle - Primary connection is provided by Cox TLAN Services. Currently have a 250Mbps TLAN circuit with the possibility of increasing to 1 Gbps in the 2014-15 year. This site connects to the ITS NOC. Current phone system is a Nortel CSE 1000. Phones are digital. San Ysidro Adult - Primary connection is provided by Cox TLAN Services. Currently have a 250Mbps TLAN circuit with the possibility of increasing to 1 Gbps in the 2014-15 year. This site connects to the ITS NOC. Current phone system is a CSE 1000. Phones are digital.

San Ysidro High - Primary connection is provided by Cox TLAN Services. Currently have a 250Mbps TLAN circuit with the possibility of increasing to 1 Gbps in the 2014-15 year. This site connects to the ITS NOC. Current phone system is a Nortel Option 11C.Phones are digital.

Southwest Middle - Primary connection is provided by Cox TLAN Services. Currently have a 250Mbps TLAN circuit with the possibility of increasing to 1 Gbps in the 2014-15 year. This site connects to the ITS NOC. Modernization has been completed for the 300, 400, 500, 600, 800, and Cafeteria buildings as well as a new 100, 200, and GPE/BPE building nearing completion. Current phone system is a Nortel Option 11C. Phones are digital and Spectralink Wireless Phone system.

Southwest High - Primary connection is provided by Cox TLAN Services. Currently have a 250Mbps TLAN circuit with the possibility of increasing to 1 Gbps in the 2014-15 year. This site connects to the ITS NOC. We have a Cisco 5509 that is end of life and scheduled replacement with a new Cisco 4506. Modernization has been completed for the 200, 300, and 400 buildings and a new 2 story classroom building being built now. Current phone system is a Nortel CS1000E. Phones are partial VOIP and digital.

Sweetwater Community Day - Primary connection is provided by Cox Type 2 circuit. Currently have a 1.5MB circuit and in process of upgrading to 10Mbps Cox Tlan service. This site connects to the ITS NOC. Current phone situation is Single Line Set - Centrex

Sweetwater High - Primary connection is provided by Cox TLAN Services. Currently have a 250Mbps TLAN circuit with the possibility of increasing to 1 Gbps in the 2014-15 year. This site connects to the ITS NOC. Modernization has been completed for the Gym, 200, 300, and 400 buildings as well as a new 3 story 100, Theater, and Library under construction now. A new Gym building has been completed as well. Current phone system is a Nortel CSE 1000. Phones are digital. Additional Sites

Steven Hawking Charter School 1 - Primary connection provided by Cox TLAN Services. Currently have a 250Mbps TLAN circuit with the possibility of increasing to 1 Gbps in the 2014-15 year. Current phone system is a Nortel Option 11C. Phones are digital.

Steven Hawking Charter School 2- Primary connection is 1Gbps connection to MDF on SOM Campus and sharing the SOM Bandwidth. Current phone system is a shared Cisco VoIP with SOM campus Categorical - Primary connection is provided by Cox TLAN Services. Currently have a 250Mbps TLAN circuit with the possibility of increasing to 1 Gbps in the 2014-15 year. This site connects to the ITS NOC. Phones are VOIP connected directly to the NOC at IT.

Chula Vista Youth Center - Primary connection is provided by Cox Tlan Services. Currently have a 100Mbps circuit. This site connects to the ITS NOC. Current phone system is CiscoVoIP. Imperial Beach Adult - Primary connection is provided by Cox TLAN Services. Currently have a 250Mbps TLAN circuit with the possibility of increasing to 1 Gbps in the 2014-15 year. This site connects to the ITS NOC. Current phone situation is Single Line Set - Centrex

National City Park - Primary connection is provided by Cox Type 2 circuit. Currently have a 1.5MB circuit and in process of upgrading to 10Mbps Cox Tlan service. This site connects to the ITS NOC. Current phone situation is Single Line Set - Centrex

San Ysidro ISC (Villa Nueva Apts.) - Primary connection is provided by Cox Type 2 circuit. Currently have a 1.5MB circuit and in process of upgrading to 10Mbps Cox Tlan service. This site connects to the ITS NOC. Current phone situation is Single Line Set - Centrex

CVA-Fredericka Manor - Primary connection is provided by Cox Type 2 circuit. Currently have a 1.5MB circuit and in process of upgrading to 10Mbps Cox Tlan service. This site connects to the ITS NOC.

670 L St. Offices - Primary connection is provided by Cox TLAN Services. Currently have a 250Mbps TLAN circuit with the possibilty of increasing to 1 Gbps in the 2014-15 year. This site connects to the ITS NOC. Phones are CISCO VOIP .

680 L St. Offices - Primary connection is provided by Cox TLAN Services. Currently have a 250Mbps TLAN circuit with the possibilty of increasing to 1 Gbps in the 2014-15 year. This site connects to the ITS NOC. Current phone system is CS1000E. Phones are digital.

East Hills Academy - Primary connection is shared with Olypian High School and provided by Cox TLAN Services. Currently have a 250Mbps TLAN circuit with the possibility of increasing to 1 Gbps in the 2014-15 year. This site connects to the ITS NOC. Current phone system is a Nortel CSE 1000S shared with Olypian High School. Phones are VOIP using a Nortel backbone separate from the Cisco Data network...

Appendix C - Criteria for EETT Funded Technology Plans

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

- For corresponding EETT Requirements, see the EETT Technology Plan Requirements (Appendix D).
- Include this form (Appendix C) with "Page in District Plan" completed at the end of your technology plan.

| 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) | 3 | 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 (7/1/14 to 6/30/17). | The plan is less than three years or more than five years in length. Plan duration is 2014-2017. |
| 2. STAKEHOLDERS CRITERION Corresponding EETT Requirement(s): 7 and 11 (Appendix D). | Page in District Plan | Example of Adequately Addressed | 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. | 4 | 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. | 11 | The plan describes the typical frequency and type of use (technology skills/information literacy/integrated into the curriculum). | The plan cites district policy regarding use of technology, but provides no information about its actual use. |
| C. | Summary of the district's curricular goals that are supported by this tech plan. | 18 | 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. | 21 | 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 | 26 | The plan delineates clear goal(s), measurable objective(s), annual benchmarks, and an implementation plan detailing how and when students will | The plan suggests how students will acquire technology skills, but is not specific enough to determine what action needs to be taken to |

| i | technology skills and information literacy skills needed to succeed in the classroom and the workplace. | | acquire technology skills and information literacy skills. | accomplish the goals. |
|-----------------------------|---|----|---|--|
| i | List of goals and an implementation plan that describe how the district will address the appropriate and ethical use of information technology in the classroom so that students can distinguish awful 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 (AB 307, optional in 2007-08 tech plans 2008-09 and after) | 27 | The plan describes or delineates clear goals outlining how students will learn about the concept, purpose, and significance of the ethical use of information technology including copyright, fair use, plagiarism and the implications of illegal file sharing and/or downloading (as stated in AB 307). | The plan suggests that students will be educated in the ethical use of the Internet, but is not specific enough to determine what actions will be taken to accomplish the goals. |
| i v s F a () | List of goals and an implementation plan that describe how the district will address Internet safety, including how to protect online privacy and avoid online predators. (AB 307, optional in 2007-08 tech plan, required in all tech plans 2008-09 and after) | 29 | The plan describes or delineates clear goals outlining how students will be educated about Internet safety (as stated in AB 307). | The plan suggests Internet safety education but is not specific enough to determine what actions will be taken to accomplish the goals. |
| F F | Description of or goals about the district policy or practices that ensure equitable technology access for all students. | 30 | 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 | The plan does not describe policies or goals that result in equitable technology access for all students. Suggests how technology will be |

| | | | support accomplishing the plan's goals. | used, but is not specific enough to know what action needs to be taken to accomplish the goals. |
|----|---|----|---|--|
| 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. | 34 | The plan delineates clear goal(s), measurable objective(s), annual benchmarks, and an implementation plan for using technology to support the district's student record-keeping and assessment efforts. | 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. |
| 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. | 38 | The plan delineates clear goal(s), measurable objective(s), annual benchmarks, and an implementation plan for using technology to improve twoway communication between home and school. | 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. |
| 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. | 40 | The monitoring process, roles, and responsibilities are described in sufficient detail. | The monitoring process either is absent, or lacks detail regarding procedures, roles, and responsibilities. |

| 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 | 42 | The plan provides a clear summary of the teachers' and administrators' current technology proficiency and integration skills and needs | Description of current level of staff expertise is too general or relates only to a limited segment of the district's |

| development. | | for professional development. The findings are summarized in the plan by discrete skills that include CTC Standard 9 and 16 proficiencies. | 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, ar an implementation plar providing professional development opportun based on your district needs assessment data (4a) and the Curriculun Component objectives (Sections 3d through 3 the plan. | nd n for ities a n | 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 through 3j) of the plan. | The plan speaks only generally of professional development and is not specific enough to ensure that teachers and administrators will have the necessary training to implement the Curriculum Component. |
| c. Describe the process to will be used to monitor Professional Developm (Section 4b) goals, objectives, benchmark and planned implementation activities including roles and responsibilities. | the ent s, | 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 | 64 | The plan clearly summarizes the existing technology hardware, electronic learning resources, networking and telecommunication infrastructure, and technical support to support the | The inventory of equipment is so general that it is difficult to determine what must be acquired to implement the Curriculum and |

| and Professiona Development C (Sections 3 & 4) plan. | omponents | | implementation of the Curriculum and Professional Development Components. | Professional Development Components. The summary of current technical support is missing or lacks sufficient detail. |
|---|---|----|--|--|
| b. Describe the techardware, electilearning resournetworking and telecommunicatinfrastructure, plant modificatitechnical suppositive district's students, and administrators the activities in Curriculum and Professional De Components of | tions bhysical ons, and ort needed teachers, to support the | 67 | 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 and benchmarks an for obtaining the infrastructure, I resources and to support require support the oth components as in Section 5b. | d a timeline e hardware, earning echnical d to er plan | 69 | 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 prowill be used to a Section 5b & the benchmarks an of activities included | monitor e annual d timeline luding roles | 70 | 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. | 72 | 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. | 73 | 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. | 74 | 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. | 74 | 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 | 75 | The plan describes the process for evaluation using the goals and benchmarks of | No provision for an evaluation is included in the plan. How |

| | impact on teaching and learning. | | each component as the indicators of success. | 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. | 75 | 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. | 75 | 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.) | 77 | 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 | 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. |

efforts.

| 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 | Not Adequately Addressed |
|----|---|-----------------------------|---|--|
| a. | Summarize the relevant research and describe how it supports the plan's curricular and professional development goals. | 80 | The plan describes the relevant research behind the plan's design for strategies and/or methods selected. | The description of the research behind the plan's design for strategies and/or methods selected is unclear or missing. |
| b. | 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. | 88 | The plan describes the process the district will use to extend or supplement the district's curriculum with rigorous academic courses and curricula, including distance learning opportunities (particularly in areas that would not otherwise have access to such courses or curricula due to geographical distances or insufficient resources). | There is no plan to use technology to extend or supplement the district's curriculum offerings. |

Appendix J – Technology Plan Contact Information (Required)

Education Technology Plan Review System (ETPRS) Contact Information

| County & District Code: 37 - 68411 | | | | | |
|---|--|--|--|--|--|
| School Code (Direct-funded charters only): | | | | | |
| LEA Name: Sweetwater Union High School District | | | | | |
| *Salutation: Mr. Ms. | | | | | |
| *First Name: David | | | | | |
| *Last Name: Damico | | | | | |
| *Job Title: Director | | | | | |
| *Address: 1130 5 th Ave | | | | | |
| *City: Chula Vista, CA | | | | | |
| *Zip Code:91911 | | | | | |
| *Telephone: 619-600-3371 Ext: | | | | | |
| Fax: 619-600-3349 | | | | | |
| *E-mail: david.damico@sweetwaterschools.org | | | | | |
| Please provide backup contact information. | | | | | |
| 1st Backup Name: Maria Castilleja | | | | | |
| E-mail: maria.castilleja@sweetwaterschools.org | | | | | |
| 2 nd Backup Name: Manuel Rubio | | | | | |
| E-mail: manuel.rubio@sweetwaterschools.org | | | | | |
| *Required information in the ETPRS | | | | | |