PVPUSD Technology Plan

Palos Verdes Peninsula Unified

July 1, 2014 - June 30, 2017

This plan is for EETT and E-Rate.
## Table of Contents

Background and Demographic Profile - Optional ................................................................. 1

1. Plan Duration .................................................................................................................. 3

2. Stakeholders .................................................................................................................. 4

3. Curriculum ..................................................................................................................... 7

   3a. Current access by teachers and students ............................................................... 7

   3b. Current use of technology to support teaching and learning ............................ 10

   3c. District curricular goals to support plan ............................................................... 14

   3d. Teaching and learning goals (Measurable Objectives, Benchmarks) ............... 16

   3e. Acquiring technology skills AND information literacy skills (Measurable Objectives, Benchmarks) ................................................................. 24

   3f. Ethical use ............................................................................................................. 28

   3g. Internet safety ...................................................................................................... 29

   3h. Description of access for all students ................................................................. 31

   3i. Student record keeping ....................................................................................... 33

   3j. Two way home-school communication .............................................................. 36

   3k. Curriculum Monitoring Process ......................................................................... 38

4. Professional Development ............................................................................................ 40

   4a. Summary of Teacher and Administrator Skills and Needs ............................... 40

   4b. Providing PD Opportunities (Measurable Objectives, Benchmarks)............... 42

   4c. Professional Development Monitoring ............................................................... 44

5. Infrastructure, Hardware, Technical Support, and Software .................................. 46

   5a. Existing Resources ............................................................................................. 46

   5b. Needed Resources .............................................................................................. 51

   5c. Annual Benchmarks and Timeline for obtaining resources .......................... 56

   5d. Process to Monitor 5b ....................................................................................... 58
<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>6. Funding and Budget</td>
<td>59</td>
</tr>
<tr>
<td>6a. Established and Potential Funding Sources</td>
<td>59</td>
</tr>
<tr>
<td>6b. Annual implementation costs</td>
<td>60</td>
</tr>
<tr>
<td>6c. District replacement policy</td>
<td>62</td>
</tr>
<tr>
<td>6d. Budget monitoring</td>
<td>63</td>
</tr>
<tr>
<td>7. Monitoring and Evaluation</td>
<td>64</td>
</tr>
<tr>
<td>7a. Overall progress and impact evaluation</td>
<td>64</td>
</tr>
<tr>
<td>7b. Evaluation schedule</td>
<td>65</td>
</tr>
<tr>
<td>7c. Communicating evaluation results</td>
<td>65</td>
</tr>
<tr>
<td>8. Collaborative Strategies with Adult Literacy Providers</td>
<td>67</td>
</tr>
<tr>
<td>9. Effective, Researched-Based Methods and Strategies</td>
<td>68</td>
</tr>
<tr>
<td>9a. Research Summary, District Application</td>
<td>68</td>
</tr>
<tr>
<td>9b. Technology to Deliver Rigorous Curriculum</td>
<td>70</td>
</tr>
<tr>
<td>Appendix C - Criteria for EETT Technology Plans</td>
<td>73</td>
</tr>
<tr>
<td>Appendix J - Technology Plan Contact Information</td>
<td>82</td>
</tr>
<tr>
<td>Addendum - Resources for developing standards, benchmarks, scope/sequence, grade level projects</td>
<td>82</td>
</tr>
</tbody>
</table>
Background and Demographic Profile

The Palos Verdes Peninsula Unified School District (PVPUSD) has prepared this plan to outline its vision for technology for the next three years, July 1, 2014 – June 30, 2017. The overall goal is to address the many different factors that are critical to achieve the curricular goals of the district and to provide funding and resources for both instructional and operational technology needs.

Technology is a priority in the PVPUSD. It continues to be identified as a priority for parents and the community. The PVPUSD community of stakeholders including PTA, Booster Clubs, and the Peninsula Education Foundation have continued to play a vital role in the support and sustainability of technology. These stakeholders have been a key funding resource and supporters for the technology programs in PVPUSD schools.

Like many school districts in California, the previous PVPUSD technology program had to take on a "maintain and support" role versus a "refresh and expand" strategy due to the financial problems facing education. As California has seen some economic growth and school funding and budget resources have increased, the PVPUSD has been able to upgrade and expand technology resources. The shift in state standards and focus on 21st Century learning has also played a significant role in current and future technology planning. These changes will impact all of the main components of the plan including curriculum, staff development, infrastructure and personnel.

Despite the difficult times educators in California have faced, the PVPUSD continues to succeed in preparing students for higher learning. The overall API score for the district continues to rise and is now at 912. The district continues to push forward in helping all students succeed by placing a focus on intervention and identification sub-groups with the help of data and assessment.

It is important to point out several notable factors about the District that play a role in the development and implementation of this plan:

- Average elementary school API scores: 948 (+10 points from 3 years ago)
- Average intermediate school API scores: 934 (+21 points from 3 years ago)
- Average comprehensive high school API scores: 901 (+31 points from 3 years ago)
- U.S. News’ “Best High Schools National Rankings” for 2014:
  - Peninsula High School is #165 in the nation and Palos Verdes High School is #187.
  - Among California high schools on the list, Peninsula High is #26 and Palos Verdes High is #30.
- In 2013, PVPUSD students took over 3,800 Advanced Placement tests
- E-Rate funding discount for 2014-2015: 39%
- Microsoft Voucher Eligibility Funding: $0
- STEM programs offered at High School, Intermediate, and Elementary levels
- Parcel Tax funding for technology
- Peninsula Education Foundation support
- Parent, Booster & Community support
- Site-based decision-making model

The PVPUSD has been fortunate that students have had the opportunity to acquire and strengthen their technology skills with the help of resources beyond the classroom and traditional school day. Students have access to quality technology in several environments including:
• Palos Verdes Library District
• Before and after school enrichment programs
• Before and after school child care programs
• School clubs and organizations
• Summer enrichment programs
• PV Annex
• Summer school
• Personal and home technology
1. Plan Duration

July 1, 2014 - June 30, 2017
## Stakeholders

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<tr>
<th>Name</th>
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<tr>
<td>Andrea MacDonald</td>
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<td>Malcolm Sharp</td>
<td>Board of Education Member</td>
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<td>Lazlo Latkosky</td>
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<td>Erin LaMonte</td>
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<td>Julie Wesley</td>
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<td>Lea Toombs</td>
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<td>Bill MacDonald</td>
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<td>Shannon Bogart</td>
<td>Classroom Teacher</td>
<td>Los Angeles Palos Verdes Peninsula Unified Lunada Bay Elementary</td>
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This plan has been updated through a collaborative effort of stakeholders that make up the District’s Technology Advisory Committee. The Assistant Superintendent of Technology and
Support Services facilitated the plan update with this group that represents the following types of stakeholders.

- Classified Bargaining Unit
- Certificated Bargaining Unit
- District Administration
- School Site Administration
- Parent Teacher Association
- Community
- Peninsula Education Foundation
- Technology Support Staff
- Palos Verdes Library District

The plan is shared with the PVPUSD Board of Education and reviewed by the Los Angeles County Office of Education. State approval by the California Department of Education is a requirement for both State and Federal funding opportunities.

The Los Angeles County Office of Education and CTAP has provided guidance during the plan development to help ensure the plan contains the necessary elements for State approval.
3. Curriculum

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

Overview of Access to Technology:
Students and teachers have various types of access to technology in the PVPUSD. In addition to technology in classrooms, libraries and computer labs, the district has implemented a Bring Your Own Device (BYOD) program. There continues to be an increase in the acquisition of mobile and portable devices at school campuses (i.e., tablets, iPads, Chromebooks, laptops). All classrooms across the district have Internet access and WiFi coverage.

Classroom Technology:
In order to ensure equity across all schools, the district has developed a “Baseline” formula that outlines what technology resources each classroom should have. An additional goal of the "Baseline" formula is to prioritize funding needed to achieve baseline goals prior to pursuing other technology initiatives at the school site level. As the district progresses in meeting baseline goals, the Technology Advisory Committee will re-evaluate the formula and make recommendations to update or modify the formula as technology and resources change.

The current classroom technology baseline formula as of 2014 is:

- Teacher computer (current operating system and enough memory - e.g., Windows 7, 2 – 4 GB of memory)
- Printer
- Document camera
- Projector with speaker or sound system so students can hear multi-media
- Teacher iPad
- AppleTV
- Productivity software suite (e.g., Microsoft Office)

In addition to these baseline items, classrooms have telephones, televisions, cable TV service and the ability to play CD’s, and DVD’s. The actual number of computers in each classroom varies. Some classrooms at the K-5 level also have older computers that are not on the campus network but are used for the development of basic skills such as keyboarding or CD-ROM instructional applications. Technology staff has been and will continue identifying “old and legacy” technology systems that require an updated and more efficient solution.

There has been a significant infusion of instructional and interactive technology solutions to assist teachers and students in the classroom. The use of interactive hardware solutions along with web based applications that allow both in class and beyond the school day collaboration are increasing. Many teachers have also been infusing digital content and media into their lesson plans. Some of this content is teacher created and some is subscription based online resources that students can access both at school and home. Throughout the district, there has been a significant increase in the use of technology for teacher to teacher and teacher to student collaboration. The use of online
tools such as Edmodo, Edline, and Google Apps for Education continue to increase and play a role in instruction.

Following the site based decision leadership model, each school has developed a site level strategy for the implementation of new technology. Site level plans have included input from teachers, parents, and leadership teams. Schools have had to address issues such as setting priorities, developing grade level standards, budget and training. This planning has had to address current and future years due to budget and fundraising limitations.

It is important to also note the advances in assistive and adaptive technology for students. The delivery of content, user experience, portability and ease of use are changing with the implementation of devices such as iPads, Chromebooks, tablets and software applications. The BYOD program has also played a role by providing additional options for all students. The Technology Services and Student Services department collaborate to identify and apply these types of resources.

Other types of limited resources and online tools available in classrooms include:

- Classroom sets of iPads, Chromebooks, and/or Tablets
- Bamboo tablets
- Keyboarding software
- SMART Interactive Response Systems
- Weather monitoring software & equipment
- BrainPop
- SuccessMaker
- California Streaming
- Learn360
- Aims Web
- Accelerated Reader
- Scholastic Reading Inventory
- Project Lead the Way
- Online academic and research databases
- Polling and response software and apps for mobile devices

**Group teaching/learning environments:**

When developing the baseline standard formula, consideration was given to teaching and learning in a group or classroom type of environment. Based on teacher input, the Technology Advisory Committee recognized the importance of having enough technology resources to provide group instruction to accommodate the largest class size on campus.

The baseline formula to meet this need is:

- **K–5 campuses**: A teaching/learning environment that can accommodate 40 students at one time. This can be accomplished through a lab/media center or mobile devices (i.e., iPads, laptops).
- **6-12 campuses**: Two (2) teaching learning environments that can accommodate 40 students at one time. This can be accomplished through the following: Lab, Library/Media Center, Mobile devices
*at least one “physical” lab (i.e., a traditional lab/room with computers) is required at each intermediate or high school campus

Library/Media Centers

All schools have a library/media center which varies in terms of size, functionality and resources. While all have traditional library resources, some schools have been able to provide additional technology resources for students. Because of physical plant and space limitations, some elementary campuses have integrated a traditional computer lab environment into the library/media center.

The high school campuses have the most extensive information resources available in their library/media centers. Subscription services to online databases and search engines have included:

- E-Library
- EPSCO Host
- SIRS
- ABC-CLIO
- Opposing Viewpoints

High school students have access to these resources before, during and after school as well as online access from home. Many students also take advantage of technology resources at the public libraries in the community. Over the past three years, the district and the Palos Verdes Library has promoted the public library services available to students. The Palos Verdes Library district has also developed “The Annex” which is designed to be a safe, positive, fun space for students in grades 6-12. The Annex is open from 3:00 – 9:00 p.m., Monday – Friday in addition to weekends. Students can work on homework, do research or relax in a social environment geared towards teens.

The PVPUSD has recently been able to increase the staffing of the library program throughout the district. High School campuses have a credentialed librarian and K-8 campuses have part time library aides. These staff members not only perform traditional library duties but also integrate the use of technology into the library program through research, projects and technology skills building activities.

All libraries utilize automation software for circulation, patron, and inventory services. The secondary level schools have also used this software with the district's student information system to track textbooks.

Wireless Access:

The demand for wireless access and portable computing continues to grow. The district has invested in expanding the wireless infrastructure over the past few years and will continue to as the demands increase. As more students and staff members are participating in the BYOD program, there is a need to address increased coverage and bandwidth needs. In order to provide a safe and secure technology experience, the district has implemented hardware, systems and policies to address these needs.

School to Home Communication & Access
The district's use of web portals for students, parents and teachers has made it easier for all stakeholders to stay involved and up to date on student academic progress. The district utilizes a Student Information System (SIS) that offers online portals for staff, students and parents to stay up to date and informed on student progress. Teachers also utilize online systems to collaborate with students and enhance the school to home communication process.

**Educational Partnership: The Palos Verdes Library District**

The district is fortunate to have the Palos Verdes Library District (PVLD) as a partner and stakeholder. The technology resources and access available for students is a significant asset. Every library branch is equipped with up to date hardware as well as online subscription services, homework help and research tools that students can access at no charge. The PVLD continues to work directly with both the Curriculum and Technology departments of the district to evaluate resources that the PVLD can offer to assist students. Specific examples of these types of resources include: research databases, homework help programs, core literature books, online world language programs, grade level project support from PVLD library staff. PVLD also collaborates with principals, site library staff and parent volunteers. A goal of the PVLD and PVPUSD is to have every student have a library card and be able to take advantage of the free resources.

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

**Hardware & Software Resources**

Historically the level of technology has varied at each school but a move towards equity at all schools is a priority of the Board of Education and the district. While each school has its unique culture and specific needs of students beyond the core curriculum, leadership has recognized the need to provide a baseline of hardware and software resources for all schools, teachers and students. The strategy is to achieve and maintain a baseline level of technology resources and then enable individual schools to supplement and enhance to support site based innovative programs and strategies.

The implementation of baseline standards has and will continue to provide added value to the support of the district's transition to the Common Core standards and 21st Century Learning strategies. Past challenges of having the tools and resources to implement change are now being eliminated as classrooms will all have a similar set of technology tools.

It is important to note that schools will have greater flexibility in their ability to customize and supplement curriculum and intervention strategies for students. Some schools have sub-groups of students or a curricular focus that the technology resources can help expand or strengthen. Examples include programs such as:

- 1:1 technology initiatives
- robotics
- special needs assistive technology (iPads and assistive apps)
- writing and journalism projects
• technology focused student clubs and organizations (PVIT, SMERT, Cyberpatriot, Solar Cup Challenge, robotics)
• reading programs
• STEM classes

All schools do an excellent job of maximizing and sharing technology resources to benefit a wide variety of learning environments. The various applications and use of mobile devices such as iPads, Chromebooks and laptops is evidence of this.

Funding technology has always been a challenge. Schools have been able to accelerate and strengthen the teaching and learning environment through site funding efforts of the PTA, booster clubs and fundraising. This type of site funding and donations have helped enhance classroom technology, labs, purchase software licenses and maintain a quality technology program. District technology staff works closely with schools to ensure compatibility, license compliancy, ongoing support and best pricing.

Schools have been able to leverage the resources acquired for state testing for everyday use. The infusion of technology for state testing has helped

**Teaching & Learning at Schools**

The infusion of mobile technology devices has enabled many schools to strengthen the integration of technology in a more direct and seamless approach. Across the district, schools have been fortunate to now have a combination of both a traditional "lab" type of learning environment and mobile devices to accommodate entire classes of students. In regard to logistical and scheduling issues, this dual approach model has had a significant impact on teaching and learning. Teachers are utilizing technology in both types of environments with reduced restrictions related to availability, scheduling and time spent for setup or relocating to another room.

In addition to classroom use of technology, elementary students have the opportunity to access and use technology during computer lab and library/media center visits.

District provided mobile devices combined with the BYOD program have allowed teachers to develop innovative programs. These types of programs include:

• 1:1 pilot programs by grade level
• student news broadcasts
• online school newspapers
• podcasts
• radio productions
• writing projects
• senior capstone project presentations

Student collaboration is also becoming more evident with the integration of technology in the classroom. Students use online tools such as Edmodo and Google apps for project based learning, participation and feedback. These tools provide access both at school and home.

**Elementary:** Preparation for new SBAC online testing has provided added value to technology resources for students. Every elementary school now has an upgraded lab or group instruction learning environment. This has enabled teachers to have additional resources for technology integration. Across the district, teachers are taking advantage of these teaching environments and
the infusion of mobile devices to integrate technology into the curriculum. The next key component is the development of learning targets for each grade level. This is a goal outlined in other sections of this plan. The purpose is to teachers, parents and students identify grade level expectations for technology relative to the transition to the Common Core State Standards. Teachers have already been reviewing the "technology" skills required for online assessments, primarily at the younger grade levels (i.e., keyboarding, basic computer navigation skills).

A need outlined in previous plans has recently been addressed in terms of staffing and support. Each elementary school now has dedicated part time staff members for technical support and in the library/media center. Both of these positions will play a key role in helping teachers and students use technology.

**Secondary:** Intermediate and High School students utilize technology through multiple course offerings and curriculum integration. Courses specifically focused on technology skills and careers include:

- Computer Programming AP
- Web Page Design 1 - 4
- Video Production 1 - 4
- Digital Animation 1 - 3
- Journalism 1 - 4
- Computer Composition
- Personal Finance
- Engineering
- Robotics
- Advanced Placement World Languages Testing
- Digital Electronics
- Photojournalism
- Studio Art AP Drawing/Painting & 2-D Design
- Digital Photography
- STEM

Throughout the district, there are additional elective courses, programs, clubs, and activities for students that employ technology as the foundation. A few examples include:

- Journalism (student newspapers)
- School web pages (designed and maintained by students)
- Live video news productions (“Live from 205”)
- Weekly video news productions (“Student News at Dapplegray”, “Eye on the Panther” at PVPHS, "Student News" at RIS)
- PVIT (Palos Verdes Institute of Technology)
- SMERT (Science, Math, Engineering, Robotics & Technology)
- Yearbook
- CyberPatriot III competition
- Solar Cup Challenge

Schools are also in process of considering expansion of the STEM curriculum to include the Arts and possibly transition to a STEAM curriculum.

**District priority: Transition to CCSS**
Like many school districts, the PVPUSD is committed to transitioning to the Common Core State Standards (CCSS). As the Curriculum and Instruction department and teachers undertake this shift, technology will continue to be a part of the discussion.

**District priority: Intervention**

The district continues to focus on intervention strategies and technology has taken a large role in this. Technology rich intervention programs are providing solutions for students identified as needing assistance. Where applicable, these same solutions are utilized for all students, not just those who may need extra help. This commitment to intervention has been one of the key factors cited in the continued growth of test scores as well as the decline in special education assessments and referrals. Intervention strategies apply to the entire pre-K through 12 curriculum and include some of the technology based solutions listed below:

- SuccessMaker
- AimsWeb
- BrainPop
- Revolution Prep
- Read Naturally
- Read 180
- Brainchild
- Reading Eggs

**School to Home Communication**

The district has always placed school to home communication as a high priority. Parent and community stakeholders have been an essential component of student and district success. There have been ongoing efforts to upgrade and improve communication. The transition to the Aeries.NET platform is one example. Parents and students now have greater access to student demographics, academic progress and historical data such as transcripts and assessments. The district has also been able to use the Aeries.NET platform to streamline many processes and procedures such as secondary course selection and new student enrollment. These types of changes not only assist with communication but also provide more efficiency and cost savings. While the district still utilizes the Edline platform, there has been increased adoption of other types of technology tools that assist with school to home communication and collaboration. Online resources such as Remind 101, Edmodo, Google Apps are being adopted by more teachers. The challenge for the district will be to have consistency and training for all stakeholders. The district will continue to address the importance of student privacy and protection with staff and parents.

High School counselors, students and parents have access to Naviance, one of the leading providers of planning and advising systems for secondary schools. More than 28,000 educators and counselors serving more than 2.5 million students in schools across the U.S. and in 47 other countries use Naviance products to manage academic and post-secondary advising, communicate with students and families, and analyze data. Naviance is also being used for online scheduling of courses.

A recent addition to the emergency notification system that doubles as an absence caller and general notification system is a text messaging feature. Social media tools such as Twitter have
also been growing in use as a method of keeping parents, students and the community up to date on school activities and announcements.

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

Technology has and will continue to play a role with curricular goals in the district, most notably in the following Board of Education goals:

**Goal:**
Support the academic achievement of all students through a rigorous and balanced curriculum, as we transition to the K-12 implementation of the Common Core State Standards while continuing to foster critical thinking, collaboration, creativity, and communication skills.

**Objectives:**
- *K-12 Administrators and Teachers will...* Understand the major shifts of the CCSS and begin to integrate them into the instructional program for all content areas through the development of common language and strategies for implementation
- *K-12 Teachers will...* Implement instructional norms that align to the CCSS and adjust the learning environment to support the instruction required by the CCSS
- *K-12 Teachers will...* Integrate technology into teaching and learning practices where appropriate as an effective instructional tool aligned to the implementation of the CCSS and in preparation for the transition to Smarter Balance Assessment System
- *K-12 Teachers will...* Begin the process of aligning K-12 Curriculum and assessment in ELA, Math, Social Studies and Science with the requirements of the CCSS and begin to identify and develop transitional resources for the implementation of the CCSS
- *The PVPUSD will...* Continue to provide support to teachers and administrators through Professional Development opportunities designed to facilitate the implementation of the CCSS at both the district and site levels.
- *The PVPUSD will...* continue to provide opportunities to support leadership development and succession.
- *The PVPUSD will...* continue to provide support to Special Education staff by enhancing communication and professional development.
- *The PVPUSD will...* continue with the implementation of the expansion of the early childhood programs housed at VELA and MELA. This includes licensing, facilities, staffing, and effective programs.
- *The PVPUSD will...* continue work to provide effective intervention (RtI) to students at all school sites.

**Goal:**
Establish and implement multi-year plans in order to ensure the fiscal stability of the District and to support a high quality instructional program.
Objectives:

- Staff will present and implement a plan, with Board approval, for a balanced budget in 2013-14, 2014-15, and 2015-16 once the details of the State budget have been analyzed.
- Specific department and program budgets will be developed to guide/control expenditures.
- Review systems and procedures within the District so that effective controls are in place to control expenditures and staffing.
- Staff will continue to develop proposed strategies for increasing district income.
- The new Student Services Team will use data analysis tools to demonstrate progress and contain costs through development of strategies for enhanced efficiencies without lessening appropriate services/programs for students.
- Continue to implement the District’s Facility Master Plan while transitioning to a maintenance model.
- Develop and implement a multiyear technology plan for infrastructure upgrades at school sites to support teaching and learning.

Goal:
Enhance communication and collaboration between and among District staff, students, parents, Board of Education and community.

Objectives:

- Staff will develop enhanced public relations strategies to keep the community informed about District priorities (goals & objectives).
- Staff will present updates on District goals & objectives on a quarterly basis at regularly scheduled board meetings.
- Staff will continue to enhance two-way communication with school sites.
- Staff will develop a unified informational campaign for the high school selection process.
- Enhance public communication between Board members through periodic updates and reports from Board members regarding any District activities they participate in, including committees, subcommittees, advisory committees, etc.

LCAP Alignment:
It is important to note the relationship between the District's technology plan and the Local Control Accountability Plan (LCAP).

In regard to district goals and a role that technology will have an impact on, the following elements of the LCAP plan will involve technology collaboration:

- Professional Development will be ongoing, benchmark assessments beginning with Math TK-12 will be established.
- Professional Learning Community work regarding strategies and report card implementation for Common Core.
- Every child will have access to the Core curriculum in the classroom TK-12. In PVPUSD our focus is on closing the achievement gap that exists between identified sub-groups.
- The integration of research based instructional practices, strategies and assessments to provide consistent instruction to all students will support the development of college and career readiness indicators based on the five Cs: Critical Thinking, Communication, Collaboration, Creativity and Civic Learning / Responsibility as measured by district and state assessments.

Maintain a highly skilled staff to deliver TK-12 curriculum aligned with Common Core State Standards that provides all students access to required college and career readiness.

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

Goal 3d.1: The PVPUSD's transition to the Common Core State Standards (CCSS) will include the integration of technology into the curriculum with the application of 21st Century technology skills.

Objective 3d.1.1: The PVPUSD will transition to the Common Core State Standards (CCSS) and identify technology learning targets related to the CCSS.

Benchmarks:
- Year 1: All K-5 students will complete a grade level technology project that meets a defined learning target for Language Arts.
- Year 2: All students in grades K-8 will complete a grade level technology project that meets a defined learning target for Language Arts. All students in grades K-5 will complete a grade level technology project that meets a defined learning target in Math.
- Year 3: All students in grades K-12 will complete a grade level technology project that meets a defined learning target for Language Arts. All students in grades K-8 will complete a grade level technology project that meets a defined learning target for Math.

<table>
<thead>
<tr>
<th>Implementation Plan</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Activity</strong></td>
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<tr>
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</tbody>
</table>

Palos Verdes Peninsula Unified  
July 1, 2014 - June 30, 2017  
Page 16
<p>| The K-5 Language Arts IA team will identify grade level technology projects that meet defined learning targets. | By August 2014. | Director, Curriculum &amp; Instruction Teachers on Special Assignment; Asst. Superintendent, Technology &amp; Support Services Technology Advisory Committee's Curriculum sub-committee | This activity will be monitored by the Curriculum &amp; Instruction and Technology Services leadership. Progress and results will be shared at Principal meetings and Board of Education updates and reports. The district's Technology Advisory Committee will also review and make recommendations. | Meeting notes, minutes and sign in sheets. Learning target matrix by grade level. |
| Integration of grade level Language Arts technology projects in grades K-5 that are aligned with CCSS. | By June 2015. | Teachers; Principals; Teachers on Special Assignment; Director of Curriculum &amp; Instruction; Asst. Superintendent of Curriculum &amp; Instruction; Asst. Superintendent of Technology &amp; Support Services | Principals will monitor and evaluate the progress and success of integration. | Grade level projects. Teacher feedback. Surveys. Student portfolios. |
| Develop a solution to organize, store and document student grade level technology related projects. | By June 2015. | Director of Curriculum &amp; Instruction; CIA teams; Principals; Asst. Superintendent of Curriculum &amp; Instruction; Asst. Superintendent of Technology &amp; Support Services | The Curriculum &amp; Instruction and Technology Services departments will research and present options to the following stakeholder groups: teachers, principals, parents. After reviewing options, a recommendation will be made and a solution adopted. Schools can store documents and projects by June 2015. | CIA meetings. TAC meetings. Surveys. |
| The grade 6-8 Language Arts CAI team will identify grade level technology projects that meet defined learning targets. | By August 2015 | Director, Curriculum &amp; Instruction; Teachers on Special Assignment; Asst. Superintendent, Technology &amp; Support Services; Technology Advisory Committee's Curriculum sub-committee | This activity will be monitored by the Curriculum &amp; Instruction and Technology Services leadership. Progress and results will be shared at Principal meetings and Board of Education updates and reports. The district's Technology Advisory Committee will also review and make recommendations. | Meeting notes, minutes and sign in sheets. Learning target matrix by grade level. |</p>
<table>
<thead>
<tr>
<th>Activity Description</th>
<th>By/In Time</th>
<th>Responsible Parties</th>
<th>Public Report/Results</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Integration of grade level Language Arts technology projects in grades 6-8 that are aligned with CCSS.</td>
<td>By June 2016</td>
<td>Director, Curriculum &amp; Instruction; Teachers on Special Assignment; Asst. Superintendent, Technology &amp; Support Services; Technology Advisory Committee's Curriculum sub-committee</td>
<td>This activity will be monitored by the Curriculum &amp; Instruction and Technology Services leadership. Progress and results will be shared at Principal meetings and Board of Education updates and reports. The district's Technology Advisory Committee will also review and make recommendations.</td>
<td>Meeting notes, minutes and sign in sheets. Learning target matrix by grade level.</td>
</tr>
<tr>
<td>The K-5 Math CAI team will identify grade level technology projects that meet defined learning targets.</td>
<td>By August 2015</td>
<td>Director, Curriculum &amp; Instruction; Teachers on Special Assignment; Asst. Superintendent, Technology &amp; Support Services; Asst. Superintendent, Curriculum &amp; Instruction; Technology Advisory Committee's Curriculum sub-committee</td>
<td>This activity will be monitored by the Curriculum &amp; Instruction and Technology Services leadership. Progress and results will be shared at Principal meetings and Board of Education updates and reports. The district's Technology Advisory Committee will also review and make recommendations.</td>
<td>Meeting notes, minutes and sign in sheets. Learning target matrix by grade level.</td>
</tr>
<tr>
<td>Integration of K-5 grade level Math technology projects that are aligned with CCSS.</td>
<td>By June 2016</td>
<td>Teachers; Principals; Teachers on Special Assignment; Director of Curriculum &amp; Instruction ;Asst. Superintendent of Curriculum &amp; Instruction; Asst. Superintendent of Technology &amp; Support Services</td>
<td>Principals will monitor and evaluate the progress and success of integration.</td>
<td>Grade level projects. Teacher feedback. Student portfolios.</td>
</tr>
<tr>
<td>The 6-8 Math CAI team will identify grade level technology projects that meet defined learning targets.</td>
<td>By August 2016</td>
<td>Director, Curriculum &amp; Instruction; Teachers on Special Assignment; Asst. Superintendent, Technology &amp; Support Services; Technology Advisory Committee's Curriculum sub-committee</td>
<td>This activity will be monitored by the Curriculum &amp; Instruction and Technology Services leadership. Progress and results will be shared at Principal meetings and Board of Education updates and reports. The district's Technology Advisory Committee will also review and make recommendations.</td>
<td>Meeting notes, minutes and sign in sheets. Learning target matrix by grade level.</td>
</tr>
</tbody>
</table>
Integration of 6-8 grade level Math technology projects that are aligned with CCSS.

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<th>Monitoring &amp; Evaluation</th>
<th>Evaluation Instrument</th>
</tr>
</thead>
<tbody>
<tr>
<td>Review high school and intermediate school STEM programs and select an appropriate curriculum that allows for a smooth transition for students to migrate from the elementary to intermediate level.</td>
<td>By July 2014.</td>
<td>Curriculum and Instruction; Technology Services; High School &amp; Intermediate STEM teachers; Elementary teachers.</td>
<td>A recommendation will have been presented to the Curriculum and Instruction department and school site stakeholders. A selection will be made so budget and training can be planned.</td>
<td>Curriculum meetings, principal meetings, Board of Education update.</td>
</tr>
</tbody>
</table>

By June 2017

Director, Curriculum & Instruction; Teachers on Special Assignment; Asst. Superintendent, Technology & Support Services; Technology Advisory Committee's Curriculum sub-committee

This activity will be monitored by the Curriculum & Instruction and Technology Services leadership. Progress and results will be shared at Principal meetings and Board of Education updates and reports. The district's Technology Advisory Committee will also review and make recommendations.

Meeting notes, minutes and sign in sheets. Learning target matrix by grade level.

The 9-12 Math CAI team will identify grade level technology projects that meet defined learning targets.

By June 2017

Teachers; Principals; Teachers on Special Assignment; Director of Curriculum & Instruction; Asst. Superintendent of Curriculum & Instruction; Asst. Superintendent of Technology & Support Services

Principals will monitor and evaluate the progress and success of integration.

Grade level projects. Teacher feedback. Surveys. Student portfolios.

Goal 3d.2: Expand the STEM curriculum to a complete elementary through high school program.

Objective 3d.2.1: Implement a STEM program for upper elementary students in grades 4 - 5.

Benchmarks:

- Year 1: Implement a pilot STEM program at all elementary schools.
- Year 2: Secure funding to sustain an elementary STEM program for year 2.
- Year 3: Secure funding to sustain and expand an elementary STEM program for year 3.
<table>
<thead>
<tr>
<th>Task</th>
<th>Time</th>
<th>Responsible Departments/Coordinates</th>
<th>Budget/Account Structure</th>
<th>Reports/Inventory</th>
</tr>
</thead>
<tbody>
<tr>
<td>Finalize budget for initial year 1 pilot program implementation.</td>
<td>By July 2014</td>
<td>Curriculum and Instruction, Technology Services, Fiscal Services, STEM project lead/coordinator</td>
<td>A budget category and accounting structure created to purchase materials and pay for training.</td>
<td>Purchase orders, budget reports, inventory.</td>
</tr>
<tr>
<td>Identify and train teachers.</td>
<td>Summer 2014</td>
<td>Curriculum and Instruction, Principals</td>
<td>The Curriculum and Instruction department and elementary principals will ensure that identified teachers are signed up for and participate in training.</td>
<td>Training registration. Timesheets, roll sheets, certificates of completion. Master schedule.</td>
</tr>
<tr>
<td>Implementation of STEM curriculum at elementary schools.</td>
<td>By end of Trimester 1, 2014</td>
<td>Elementary principals, trained elementary teachers, STEM lead/coordinator</td>
<td>Principals will collaborate with Curriculum &amp; Instruction and District lead/coordinator to monitor and evaluate.</td>
<td>Lesson plans, projects, collaboration meeting agendas/notes.</td>
</tr>
<tr>
<td>Identify financial resources, partnerships and grant opportunities to help sustain and expand the STEM program throughout the district.</td>
<td>Annually review as part of budget planning process for subsequent years.</td>
<td>STEM Coordinator, Director, Curriculum &amp; Instruction, Asst. Superintendent, Curriculum &amp; Instruction, Asst. Superintendent, Technology &amp; Support Services, Director, Fiscal Services</td>
<td>Annual budget review and planning.</td>
<td>STEM program budget, grant applications, partnership agreements.</td>
</tr>
<tr>
<td>Identify fiscal needs for budget and sustainability purposes for year 2.</td>
<td>By May 2015</td>
<td>Curriculum and Instruction, Fiscal Services, District STEM lead/coordinator</td>
<td>A budget category and accounting structure created to purchase materials and pay for training.</td>
<td>Program budget.</td>
</tr>
<tr>
<td>Train additional teachers if necessary.</td>
<td>Schedule by May 2015 for summer 2015 training if funding secured for program sustainability in 2015-2016.</td>
<td>Curriculum and Instruction, Principals, STEM project lead/coordinator</td>
<td>Principal and project meetings.</td>
<td>Program review and meeting notes, Board updates, Board agenda items.</td>
</tr>
<tr>
<td>Implement Year 2 of STEM curriculum at elementary schools.</td>
<td>By end of Trimester 1, 2015</td>
<td>Elementary principals, trained elementary teachers, STEM lead/coordinator</td>
<td>Principals will collaborate with Curriculum &amp; Instruction and District lead/coordinator to monitor and evaluate.</td>
<td>Lesson plans, projects, collaboration meeting agendas/notes.</td>
</tr>
</tbody>
</table>
Train additional teachers if necessary.  

| Curriculum and Instruction, Principals, STEM project lead/Coordinator  
| Principal and project meetings.  
| Program review and meeting notes, Board updates, Board agenda items. |

- **Identify fiscal needs for budget and sustainability purposes for year 3.**
  - By May, 2016  
  - Curriculum and Instruction, Fiscal Services, District STEM lead/coordinator  
  - A budget category and accounting structure created to purchase materials and pay for training.  
  - Program budget.

- **Implement Year 3 of STEM curriculum at elementary schools.**
  - By end of Trimester 1, 2016.  
  - Elementary principals, trained elementary teachers, STEM lead/Coordinator  
  - Principals will collaborate with Curriculum & Instruction and District lead/coordinator to monitor and evaluate.  
  - Lesson plans, projects, collaboration meeting agendas/notes.

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**Goal 3d.3: Expand the use of technology to support intervention strategies across the K-12 curriculum.**

Objective 3d.3.1: Identify current best practices of technology use in intervention strategies in order to create an approved list or menu of solutions in order to address consistency, fiscal and support issues.

**Benchmarks:**
- **Year 1:** Evaluate, categorize and analyze all current technology based intervention solutions.
- **Year 2:** Create a menu or approved list of technology based intervention solutions for schools to select from.
- **Year 3:** All schools will have implemented at least two of the approved technology based intervention strategies.

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**Implementation Plan**

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<tr>
<td>Create an online form, template or survey tool for identifying and evaluating technology related intervention strategies.</td>
<td>By September 2014.</td>
<td>Asst. Superintendent, Technology &amp; Support Services</td>
<td>Data gathering tool (form or survey) will be shared with principals and teachers for input.</td>
<td>Database of information collected that can report results back to administration.</td>
</tr>
</tbody>
</table>
Summarize and report on current programs in order to identify best practices and potential cost savings. 

By February 2015. 

Asst. Superintendent, Technology & Support Services; Director, Curriculum & Instruction; Principals 

Report shared at principal meetings, Technology Advisory Committee meetings and at Curriculum & Instruction meetings. 

Summary report.

Create the approved/suggested list of technology based intervention strategies for schools to use. 

By June 30, 2015. 

Principals; Coordinators, Student Services; Director, Curriculum & Instruction; Asst. Superintendent, Curriculum & Instruction 

Curriculum & Instruction and Student Services department will facilitate principal review and evaluation. 

Surveys, evaluation forms, meeting notes.

Alignment and implementation of technology based intervention strategies used at school sites. 

By September 2016. 

Curriculum and Instruction; Technology Services; Principals; Student Services 

An adoption/implementation schedule will be provided by each school to the Curriculum & Instruction, Student Services and Technology Services departments. 

Purchase orders, license agreements, Implementation schedules.

Goal 3d.4: Provide an online concurrent enrollment option for secondary level students. 

Objective 3d.4.1: Organize a district committee to evaluate existing needs and recommend a solution to the Board of Education for adoption. 

Benchmarks: 

- Year 1: Evaluate PVPUSD student needs, evaluate District resources and analyze other programs in order to develop a recommendation to the Board of Education. 
- Year 2: Adopt and implement an online concurrent enrollment program for secondary level students. 
- Year 3: Expand the online concurrent enrollment program.

<table>
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<tbody>
<tr>
<td>Develop committee of stakeholders.</td>
<td>June 2014</td>
<td>Director, Curriculum &amp; Instruction; Asst. Superintendent, Curriculum &amp; Instruction; Asst. Superintendent, Technology &amp; Support Services, High School Principals</td>
<td>Regular reports to Superintendent and Board of Education</td>
<td>Sign in sheets, agendas.</td>
</tr>
<tr>
<td>Task</td>
<td>Timeframe</td>
<td>Responsible Parties</td>
<td>Reports/Updates</td>
<td></td>
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<tr>
<td>---------------------------------------------------------------------</td>
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<td></td>
</tr>
<tr>
<td>Analyze, evaluate and review other concurrent enrollment online programs available to PVPUSD students offered by other agencies.</td>
<td>By January 2015</td>
<td>Director, Curriculum &amp; Instruction; Asst. Superintendent, Curriculum &amp; Instruction; Asst. Superintendent, Technology &amp; Support Services, High School Principals</td>
<td>Committee will report findings to Superintendent's cabinet, Board of Education, and at Principal's meeting. Summary and comparison reports including cost, delivery methods and program specifics.</td>
<td></td>
</tr>
<tr>
<td>Evaluate budget and staffing considerations in order to develop a sustainable plan.</td>
<td>By January 2015</td>
<td>Director, Curriculum &amp; Instruction; Asst. Superintendent, Curriculum &amp; Instruction; Asst. Superintendent, Technology &amp; Support Services, High School Principals</td>
<td>Committee will report findings to Superintendent's cabinet, Board of Education, and at Principal's meeting. Committee reports, agendas, minutes, evaluation documents, surveys, Board updates/reports.</td>
<td></td>
</tr>
<tr>
<td>Identify and review content delivery systems and infrastructure needs.</td>
<td>By January 2015</td>
<td>Director, Curriculum &amp; Instruction; Asst. Superintendent, Curriculum &amp; Instruction; Asst. Superintendent, Technology &amp; Support Services, High School Principals</td>
<td>Committee will report findings to Superintendent's cabinet, Board of Education, and at Principal's meeting. Committee reports, agendas, minutes, evaluation documents, surveys, Board updates/reports.</td>
<td></td>
</tr>
<tr>
<td>Design a PVPUSD program and present proposal to Board of Education.</td>
<td>By May 2015</td>
<td>Director, Curriculum &amp; Instruction; Asst. Superintendent, Curriculum &amp; Instruction; Asst. Superintendent, Technology &amp; Support Services, High School Principals</td>
<td>Committee will make presentation to Board of Education. Board agenda item, presentation, stakeholder feedback.</td>
<td></td>
</tr>
<tr>
<td>Identify staff and provide necessary training.</td>
<td>Provide training over summer, prior to fall implementation.</td>
<td>Director, Curriculum &amp; Instruction; Asst. Superintendent, Curriculum &amp; Instruction; Asst. Superintendent, Technology &amp; Support Services, High School Principals, stakeholder committee</td>
<td>Committee will review staffing plans and proposed training. A formal plan/proposal will be presented to Superintendent's cabinet and an update will be provided to the Board of Education. Staff lists, professional development plan, calendars, schedules.</td>
<td></td>
</tr>
<tr>
<td>Implement online concurrent enrollment program.</td>
<td>By August 2015</td>
<td>Director, Curriculum &amp; Instruction; Asst. Superintendent, Curriculum &amp; Instruction; Asst. Superintendent, Technology &amp; Support Services, High School Principals</td>
<td>A timeline and schedule of activities will be used to monitor and evaluate. Timelines, schedules, committee reports, Board reports, program brochures, student enrollment data.</td>
<td></td>
</tr>
</tbody>
</table>
Market the program
After the program is adopted and announced, communication and marketing efforts will be ongoing in order to expand the program.

Director, Curriculum & Instruction; Asst. Superintendent, Curriculum & Instruction; Asst. Superintendent, Technology & Support Services, High School Principals; stakeholder committee

Enrollment and student participation will be the most effective measure of communication and marketing efforts. Online surveys will be another method of gathering feedback from stakeholders.

Enrollment reports, survey data.

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

As technology has advanced and students are "digital natives", their technology skill levels and knowledge have also grown. Students are now coming to school with a greater understanding and comfort level with technology.

Similar to the equity of technology resources, the district wants to ensure that all students have achieved a core set of technology skills at each grade level. In order to accomplish this, a "road map" is needed. Part of the challenge is that the shift in state standards does play a role and this map needs to align with the standards. The evolution of the CCSS implementation does impact curricular goals in terms of technology planning.

Through the goals outlined in this section of the plan, the district is attempting to provide clear direction to all stakeholders for the acquisition of technology and information literacy skills for students.

Past challenges have included limited technology resources, limited professional development and a lack of support staff to consistently help students reach desired technology and information literacy skill targets. The improved financial climate for education across the state and locally has enabled the PVPUSD to eliminate many of those factors.

The district is focused on having a comprehensive technology plan that not only provides the technology access and resources but a clear picture of student expectations and performance levels. This section of the plan addresses these needs.

PVPUSD leadership also recognizes the partnerships and efforts of technology leaders throughout the state. Many school districts are facing similar challenges. With this in mind and limited resources, PVPUSD leadership feels it is important to take advantage of existing resources and if appropriate utilize the research to incorporate best practices and models where applicable.

Examples of these resources include:
- Fresno County Office of Education
- Los Angeles County Office of Education
- Long Beach Unified School District
Goal 3e.1: The PVPUSD will adopt a matrix of recommended digital literacy and technology skills along with scope and sequence for each grade level that are aligned to the Common Core State Standards. This adapted and developed based on: 1. International Society for Technology in Education (ISTE) standards 2. Fresno County Office of Education's "Recommended Digital Literacy & Technology Skills to Support the California Common Core State Standards" 3. Long Beach Unified School District's "Common Core State Standards K-12 Technology Skills Scope and Sequence"

Objective 3e.1.1: Students, teachers, administrators and parents will have a clearly defined set of expectations for technology and literacy skills.

Benchmarks:

- Year 1: Adoption of Common Core State Standards K-12 Technology Skills Scope and Sequence.
- Year 2: Create a library of K-8 grade level projects that incorporate Common Core State Standards and technology skills that teachers can integrate into existing curriculum.
- Year 3: Design a library of grades 9 - 12 subject area projects that incorporate grade level Common Core State Standards and technology skills that teachers can integrate into existing curriculum.

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Implementation Plan
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<tr>
<th>Task Description</th>
<th>Target Dates</th>
<th>Responsible Parties</th>
<th>Outcome</th>
<th>Communication Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form a committee of stakeholders to create a matrix of recommended digital literacy and technology skills along with scope and sequence for each grade level that are aligned to the Common Core State Standards that are adapted from: 1. International Society for Technology in Education (ISTE) standards 2. Fresno County Office of Education's &quot;Recommended Digital Literacy &amp; Technology Skills to Support the California Common Core State Standards&quot; 3. Long Beach Unified School District's &quot;Common Core State Standards K-12 Technology Skills Scope and Sequence&quot;</td>
<td>Committee in place by July 2014. Recommendation by October 2014.</td>
<td>Director, Curriculum &amp; Instruction; TOSA's; Asst. Superintendent, Technology &amp; Support Services; Asst. Superintendent, Curriculum &amp; Instruction</td>
<td>Committee work and recommendations will be shared with principals and CAI teams throughout the development process. Meeting notes and ideas will be shared online for additional stakeholder feedback and evaluation.</td>
<td>Meeting agendas, copies of notes/minutes, post to Edmodo.</td>
</tr>
<tr>
<td>Committee will recommend keyboarding skills proficiency benchmarks by grade levels and an assessment option.</td>
<td>By August 2014</td>
<td>Director, Curriculum &amp; Instruction; TOSA's; Asst. Superintendent, Technology &amp; Support Services; Asst. Superintendent, Curriculum &amp; Instruction</td>
<td>Committee work and recommendations will be shared with principals and CIA teams throughout the development process. Meeting notes and ideas will be shared online for additional stakeholder feedback and evaluation.</td>
<td>Meeting agendas, copies of notes/minutes, post to Edmodo.</td>
</tr>
<tr>
<td>Communicate and share scope and sequence with all stakeholders (i.e., teachers, parents, principals, tech support staff, library support staff). Post online.</td>
<td>This should be done throughout the development process but formal notification of final recommendations by November 2014.</td>
<td>Director, Curriculum &amp; Instruction; TOSA's; Asst. Superintendent, Technology &amp; Support Services; Asst. Superintendent, Curriculum &amp; Instruction</td>
<td>Individual stakeholder feedback will be shared with all stakeholders.</td>
<td>Online forms, surveys, Edmodo.</td>
</tr>
</tbody>
</table>
Review existing curriculum projects to identify any that currently address the skills and create a list/library of K-8 projects. Post these online for ease of teacher, student and parent access.

By August 2015 for use in year 2.

Stakeholder technology committee will take on this responsibility after completing the scope and sequence matrix.

Committee work will seek input from CAI teams. Ideas will be shared with principals and CAI teams throughout the development process. Meeting notes and ideas will be shared online for additional stakeholder feedback and evaluation.

Meeting agendas, copies of notes/minutes, post to Edmodo.

--

Review existing curriculum projects to identify any that currently address the skills and create a list/library of grade levels 9-12 projects. Post these online for ease of teacher, student and parent access.

By August 2016 for use in year 3.

Stakeholder technology committee will take on this responsibility after completing the scope and sequence matrix.

Committee work will seek input from CAI teams. Ideas will be shared with principals and CAI teams throughout the development process. Meeting notes and ideas will be shared online for additional stakeholder feedback and evaluation.

Meeting agendas, copies of notes/minutes, post to Edmodo.

Goal 3c.2: Students will demonstrate grade level technology skills and proficiency and be able to meet learning targets.

Objective 3c.2.1: Students will have acquired the necessary skills for to succeed academically and to be college and career ready. Acquisition will take place in: traditional classroom instructional environments, library media centers, computer labs, elective courses (i.e., STEM, Multi-media, Visual & Performing Arts, Robotics, Web Design, Animation).

Benchmarks:

- Year 1: 70% of K-5 students will be able to meet grade level expectations of technology skill level expectations evidenced by project based learning or individual assessment.
- Year 2: 80% of K-5 students will be able to meet grade level technology skill level expectations evidenced by project based learning or individual assessment. 70% of grade 6-8 students will be able to meet grade level technology skill level expectations evidenced by project based learning or individual assessment.
- Year 3: 90% of K-5 students will be able to meet grade level technology skill level expectations evidenced by project based learning or individual assessment. 80% of grade 6-8 students will be able to meet grade level technology skill level expectations evidenced by project based learning or individual assessment. 70% of grade 9-12 students will be able to meet grade level technology skill level expectations evidenced by project based learning or individual assessment.

<table>
<thead>
<tr>
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<th>Evaluation Instrument</th>
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</table>

Implementation Plan
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<tr>
<th>Professional development for teachers and support staff. A review of the technology scope and sequence recommendations will be addressed at the site level and incorporated into school technology plans.</th>
<th>Ongoing (year 1, 2, 3)</th>
<th>Principals, lead teachers, department chairs, TOSA's, Director of Curriculum &amp; Instruction.</th>
<th>Professional development agendas, sign in sheets, calendars. School site technology plans.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Create or adopt an online individual assessment to evaluate student proficiency levels for technology skills and information literacy skills.</td>
<td>By April 2015 for end of year assessment.</td>
<td>Stakeholder committee, TOSA's, Director of Curriculum &amp; Instruction.</td>
<td>Meeting notes, examples shared with teachers via Edmodo. Presentation at Principal's and CAI meetings.</td>
</tr>
<tr>
<td>Provide a digital portfolio, locker or storage solution for students and teachers to document and track student progress. Review options for incorporating technology assessments into Student Information System for ease of tracking and reporting.</td>
<td>By June 2015.</td>
<td>Asst. Superintendent of Technology &amp; Support Services; Operations Supervisor, Student Data; Director, Curriculum &amp; Instruction</td>
<td>Share options with teachers and principals to receive feedback on logistics and ease of use.</td>
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<td>Comparison matrix. Product demonstrations.</td>
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</tbody>
</table>

3f. List of goals and an implementation plan that describe how the district will address the appropriate and ethical use of information technology in the classroom so that students can distinguish lawful from unlawful uses of copyrighted works, including the following topics: the concept and purpose of both copyright and fair use.

The district has been evaluating curriculum programs that are designed for different age levels. It is preferable to utilize a curriculum that provides an online content delivery and tracking system. Online access will not only provide flexibility in terms of delivery but it will also allow parents to review and participate in the lessons at home with their student if desired. This will provide a good opportunity for families to continue to have the safety and awareness discussion at home where many students are also accessing technology for school academic and social use.

**Goal 3f.1: Students will be able to distinguish lawful from unlawful uses of copyrighted works, including the following topics: the concept and purpose of both copyright and fair use; distinguishing lawful from unlawful downloading and peer-to-peer file sharing; and avoiding plagiarism.**
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<tr>
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</thead>
<tbody>
<tr>
<td>Evaluation of curricular resources and tools that address CIPA compliance, cyberbullying, copyright and fair use, plagiarism and digital citizenship.</td>
<td>By July 2014.</td>
<td>Assistant Superintendent, Technology &amp; Support Services; Director, Student Services; Principals, TOSA's</td>
<td>Findings and recommendations will be shared at Principal and CAI meetings.</td>
<td>Meeting agendas, online demonstrations, pilot programs for staff to evaluate.</td>
</tr>
<tr>
<td>Adoption and implementation of a comprehensive program that will address the goals and allow the district to track student participation and completion of lessons for all K-12 students. Curriculum with online components is preferably for delivery, access and monitoring purposes.</td>
<td>Implemented in 2014-2015 school year, preferably Semester and Trimester 1.</td>
<td>Assistant Superintendent, Technology &amp; Support Services; Director, Student Services; Principals, TOSA's</td>
<td>Implementation schedule, principal feedback, student participation reports.</td>
<td>Schedules, principal meeting agendas, surveys, online reporting tools.</td>
</tr>
<tr>
<td>Parent awareness and communication (i.e., PTA meetings, site council meetings, emails, website). Notify parents of resources available to both students and families.</td>
<td>Ongoing.</td>
<td>Asst. Superintendent, Technology &amp; Support Services; will collaborate with principals and PTA council.</td>
<td>Summary report to Superintendent's cabinet, principals and Board updates.</td>
<td>Web links, emails, PTA meetings.</td>
</tr>
<tr>
<td>Annual review and report of student participation.</td>
<td>April - June beginning in year 2015.</td>
<td>Technology Services staff; Principals; Director, Student Services</td>
<td>Meet and review assessment data and project samples and report back at principal and cabinet meetings.</td>
<td>Assessment data and appropriate class or student project samples that demonstrate application.</td>
</tr>
</tbody>
</table>

3g. 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)

The PVPUSD utilizes several strategies for sharing online safety and bullying information with students and parents.

The district has accomplished this through a variety of resources such as:

- student assemblies
- guest speakers (FBI, LA County Sheriff's department, local law enforcement)
- Safe School Counselors
- Mothers Advocating Prevention (MAP)
• NetCetera handbooks for parents: "Chatting with Kids About Being Online"
• Staff development at buyback days for teachers
• PTA training

The District has been evaluating curriculum programs that are designed for different age levels. It is preferable to utilize a curriculum that provides an online content delivery and tracking system. Online access will not only provide flexibility in terms of delivery but it will also allow parents to review and participate in the lessons at home with their student if desired. This will provide a good opportunity for families to continue to have the safety and awareness discussion at home where many students are also accessing technology for school academic and social use.

Goal 3g.1: All students will be knowledgeable of Internet safety including awareness and dangers of cyber bullying, protection against online predators, and how to maintain online privacy.

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<tr>
<th>Implementation Plan</th>
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<tbody>
<tr>
<td><strong>Activity</strong></td>
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<tr>
<td>Review AUP for students and employees to ensure it is up to date and addresses new technology, social media and online resources.</td>
</tr>
<tr>
<td>District will adopt an Internet safety curriculum that includes cyberbullying, social media, protection against online predators and how to maintain online privacy. This curriculum will have online content delivery and student participation tracking components.</td>
</tr>
<tr>
<td>All students will complete online Internet safety lessons.</td>
</tr>
</tbody>
</table>
Collaborate with Safe School Counselors, Principals and PTA leadership to share resources, identify new and developing problems and stay up to date on new social media tools and challenges.

Each semester.  
Director, Curriculum & Instruction; Principals; Safe School Counselor; Asst. Superintendent, Technology & Support Services

Meeting agendas, notes, parent emails, web links.

Maintain up to date content filtering hardware and licensing.

Ongoing annually.  
Technology Services staff.  

Hardware appliance incident and usage reports.

School Plan inclusion.
Each school will include a section on how it will address Internet safety and cyber bullying for students.

Annually  
Principals; school site leadership teams  

Board approval of school plans.  

School site plan.

3h. Description of the district policy or practices that ensure equitable technology access for all students.

The PVPUSD provides equitable access for all students. Technology is a large part of the educational process. Board of Education policy BP0410 states: 

The Board of Education is committed to equal opportunity for all individuals in education. District programs and activities shall be free from discrimination based on gender, sex, race, color, religion, ancestry, national origin, ethnic group identification, marital or parental status, physical or mental disability, sexual orientation or the perception of one or more of such characteristics.

Site based decision making along with innovation and efforts to implement advanced and leading edge programs provides additional challenges of equity in a high performing school district. The PVPUSD has often been an early adopter of advanced technology programs through the commitment and efforts of dedicated teachers, administrators, parents and students. For many years, these stakeholders have been instrumental in developing and implementing local, state and nationally recognized programs. Examples include: Live from 205 Student News Broadcasting, Robotics Teams, Cyberpatriot Teams, Speech & Debate, PVIT, SMERT, SolarCup and STEM programs.

Many of these programs have developed with the support of school and community based stakeholders and partnerships. The Peninsula Education Foundation (PEF), Booster Clubs, PTA units and fundraising efforts have played a significant role in creating and sustaining these programs especially during difficult state funding years.

The Board of Education has recognized that over time, schools have developed different levels of technology resources. On a local or site based level, all schools do not have the same resources to acquire or support technology initiatives. Based on recommendations from the district's Technology Advisory Committee, the Board of Education has adopted the implementation of "a baseline technology" strategy to ensure all schools and students have the tools and resources needed for success. The baseline clearly outlines the minimum technology resources every
classroom and campus should have for teachers and students. It also addresses group and lab style learning environments with consideration given to mobile and traditional lab settings.

This model allocates funding for schools to progressively "achieve and sustain baseline standards for technology." This also allows continued innovation and growth of technology programs with the understanding that all classrooms, teachers and staff have these resources and access first before adoption of a new initiative or program.

The Board of Education has prioritized technology equity and access by allocating general funds, parcel tax funds and the appropriate use of state funding towards technology upgrades and expansion.

Technology resources are available to all students in a variety of locations at campuses with flexible access hours before, during and after school. The expansion of access to online resources enables students and parents to have access to instructional resources, academic planning, and teacher materials. Resources and support are also provided to students who require assistive/adaptive technology or specific software. The Technology Services department works closely with the Student Services department to ensure this.

The continued growth and expansion of the Bring Your Own Device (BYOD) initiative has played a significant role in technology access for both students and staff. The PVPUSD continues to invest in infrastructure and upgrades to provide greater access. Campus wireless networks are expanding and the acquisition of mobile devices is growing at a rapid pace.

Recent district preparation efforts for online state testing have contributed to growth of technology resources and access for students. Acquired technology for testing purposes is being leveraged for everyday use. Computer labs, Chromebooks and laptops utilized for testing are raising access levels on a daily basis.

The district has built a strong partnership with the Palos Verdes Library District (PVLD) which offers technology access and resources for all students in the district. Many students utilize the technology hardware, Internet access and research tools that the local libraries offer. Electronic resources and research databases are available to students to access 24 hours a day. The PVLD and the PVPUSD continue to collaborate on efforts to educate and inform students about these free resources available to students and parents. The PVLD has also been worked directly with school support staff, teachers and students to promote digital literacy skills.

Access for students is not limited to the traditional school day and year. After school, enrichment and summer programs offer technology classes, programs and access for students. Examples include:

- keyboarding classes
- homework club
- summer enrichment classes
- before and after day care programs
- summer school
- intervention
- technology clubs
3i. 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.

The district takes great pride in the quality and accuracy of student record keeping. Up to date, state compliant and "clean" data is a priority in the PVPUSD. There has been ongoing training, evaluation and review of student data and the related gathering and reporting procedures. Decision making, strategic planning, staffing and curricular goal setting are all based on student data.

Efforts to eliminate paper, conserve resources and work more efficiently are ongoing. Forms, workflow, and related record keeping practices have transitioned to electronic processes where possible.

Teachers utilize technology for daily tasks such as attendance, gradebooks, grade reporting and communicating student progress with parents. Every teacher is provided with the technology resources in their classroom to accomplish these types of activities. For some of these items, utilizing technology is the only method for completing the job. Attendance taking and electronic report cards are a couple of examples where using a computer is the only option. The expectations and associated training for this type of technology use normally takes place prior to the start of school for new staff members.

In regard to assessments, reporting tools are available in the district Student Information System and Principals are also provided with comprehensive multi-year data reports for all students and subgroups. The PVPUSD utilizes several different solutions to manage, track and assess student data. In addition to the Aeries student Information system, the district uses the following tools:

**Edline:** web portal for school to home communication, grades, assignments, news

**Naviance:** online resource for helping students with course, college and career planning

**Aeries:** student information system

For parents, the district continues to try and streamline data submission processes to an electronic format. Student privacy, security and identity protection are a priority in all migrations to an electronic data gathering solution.

**Goal 3i.1:** The district will maintain a comprehensive student data and record keeping solution that allows teacher, parent and student access to academic progress, records and demographic data. The system will meet state data reporting requirements and will improve organizational efficiency.

Objective 3i.1.1: Expand teacher and parent use and awareness of the district's Student Information System.

Benchmarks:

- Year 1: Survey teachers and parents on existing knowledge and skills related to accessing and using the district's Student Information System.
- Year 2: All teachers will have been provided with training opportunities for new system features, updates and any procedure changes.
- Year 3: Expand and update the online library of help videos and resources to create a more comprehensive and indexed solution for parents and staff members.

### Implementation Plan

<table>
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<th>Timeline</th>
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<tbody>
<tr>
<td>Develop staff and parent survey regarding use and knowledge of Student Information System web portals.</td>
<td>By December 2014</td>
<td>Asst. Superintendent, Technology &amp; Support Services; Operations Supervisor, Student Data; Technology Services staff</td>
<td>Survey data, results and reports will be shared with cabinet and Board of Education.</td>
<td>Online survey, data reports, results analysis.</td>
</tr>
<tr>
<td>Continue &quot;Trainer of Trainers&quot; model at school sites to provide level 1 basic and peer to peer support. Provide summer training.</td>
<td>Annually in the summer prior to the start of school.</td>
<td>Asst. Superintendent, Technology &amp; Support Services; Operations Supervisor, Student Data; Technology Services staff, Principals</td>
<td>A list of site based support contacts and procedures for help will be provided to all sites.</td>
<td>Contact lists, training sign in sheets, online help request forms.</td>
</tr>
<tr>
<td>Provide onsite training opportunities for teachers. The delivery model will include one on one and small group settings.</td>
<td>Ongoing (years 1, 2, 3) - throughout the school year. This will be coordinated with site principals.</td>
<td>Operations Supervisor, Student Data; Principals</td>
<td>Schedules will be coordinated with Principals and shared with school staff. Training feedback will be gathered through online forms and/or surveys.</td>
<td>Online forms/surveys. Training calendar.</td>
</tr>
<tr>
<td>Provide additional learning opportunities for parents by collaborating with site PTA leadership units.</td>
<td>Ongoing (years 1, 2, 3).</td>
<td>Asst. Superintendent, Technology &amp; Support Services; Operations Supervisor, Student Data; Technology Services staff, Principals</td>
<td>Technology Services staff will contact PTA leadership to coordinate learning opportunities for parents at both site and council meetings. Trainings will be calendared and added meeting agendas. An online form or survey will be utilized to gather and analyze parent feedback.</td>
<td>Agendas, training schedules, training evaluations.</td>
</tr>
<tr>
<td>Create additional training videos and documents and post PVPUSD website.</td>
<td>Ongoing (years 1, 2, 3)</td>
<td>Asst. Superintendent, Technology &amp; Support Services; Operations Supervisor, Student Data; Technology Services staff</td>
<td>The PVPUSD website will be updated regularly and the parents and staff will be informed via emails, updates and announcements about the release of new resources.</td>
<td>Website, email communication, analysis of number of &quot;views&quot; for videos.</td>
</tr>
</tbody>
</table>
Goal 3i.2: Align standards based elementary report cards to new Common Core State Standards.

Objective 3i.2.1: Consistency between Common Core State Standards and PVPUSD TK-5 report cards.

Benchmarks:
- Year 1: Modifications will be made to elementary standards based report card based on the district's report card committee recommendations.
- Year 2: Annual review of standards based report card to address changes or updates to the adoption of Common Core State Standards in other content areas.
- Year 3: Annual review of standards based report card to address changes or updates to the adoption of Common Core State Standards in other content areas.

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<tr>
<td>Elementary report card committee will meet and recommend</td>
<td>By August 2014.</td>
<td>Director, Student Services; Director, Curriculum &amp; Instruction</td>
<td>Curriculum &amp; Instruction department will coordinate this project and report to Principals and Superintendent's cabinet. Board updates will also be provided. Committee recommendations will also be shared with teachers and parents.</td>
<td>Agendas, meeting notes, summary reports of recommended modifications.</td>
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<tr>
<td>recommend changes to report card.</td>
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<tr>
<td>Update electronic report cards based on committee</td>
<td>Prior to completion of Trimester 1</td>
<td>Director, Student Services; Director, Curriculum &amp; Instruction; Operations Supervisor, Student Data</td>
<td>The changes will need to be in place by the first grade reporting period. The report card committee will make the recommendations which will be shared with Principals and cabinet. Committee recommendations will also be shared with teachers and parents.</td>
<td>The TK-5 elementary electronic report card. Report card committee agendas, sign in sheets and summary of recommendations.</td>
</tr>
<tr>
<td>Planning and review meetings to address CCSS changes and</td>
<td>Ongoing (year 1, 2, 3). This will be</td>
<td>Director, Student Services; Director, Curriculum &amp; Instruction</td>
<td>A summary report provided to Principals and cabinet. Committee recommendations will also be shared with teachers and parents.</td>
<td>Meeting agendas, minutes and summary notes.</td>
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<td>adoptions.</td>
<td>done in spring or early summer in</td>
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<td>order to allow time to implement</td>
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<td>changes for next school year.</td>
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3j. List of clear goals, measurable objectives, annual benchmarks, and an implementation plan to use technology to improve two-way communication between home and school.

The PVPUSD was an early adopter of the school to home communication strategy. It has been 10+ years since the district first introduced an online portal for parents to monitor student grades and assignments.

There has been a significant amount of growth in terms of the use of additional online portals for student, parent and teacher communication. The district now provides greater access to student demographics, academic progress, assessments and electronic historical records (i.e., transcripts, course history).

Teachers have also used educationally focused collaboration tools such as Edmodo, Google Apps and Remind101 to improve communication and collaboration.

Site administration has also been using online and social media resources to share news, event reminders, athletic updates, and safety information. The district continues to stress privacy and appropriate use of any online communication.

The district has improved its communications efforts through the following:

- Aeires.NET teacher, student and parent portals
- AIR online enrollment system
- PVPUSD and school site Twitter feeds
- District wide text messaging
- Constant Contact deployment
- Superintendent's updates
- Measuring Progress newsletters
- District and school site websites
- Naviance, college and career planning
- Electronic progress and interim reports
- Electronic "Registration Day" packets
- Specific webpages targeted to stakeholder groups
- District wide email and telephone blasts

**Goal 3j.1: Increase two-way communication between home and school through the use of multiple technology communication tools.**

Objective 3j.1.1: Utilize appropriate social media tools to expand communication efforts.

Benchmarks:

- Year 1: There will be a 20% increase in the usage of social media tools to mirror other District communication efforts. (i.e., information, updates and announcements will also be shared via social media in addition to traditional communication strategies such as email, website postings, and newsletters).
- Year 2: There will be a 30% increase in the usage of social media tools to mirror other District communication efforts. (i.e., information, updates and announcements will also be shared via social media in addition to traditional communication strategies such as email, website postings, and newsletters).
- Year 3: There will be a 40% increase in the usage of social media tools to mirror other District communication efforts. (i.e., information, updates and announcements will also be shared via social media in addition to traditional communication strategies such as email, website postings, and newsletters).

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<tr>
<td><strong>Activity</strong></td>
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<tr>
<td>Technology Advisory Committee will evaluate appropriate social media options.</td>
</tr>
<tr>
<td>Survey parent, student and community stakeholders to gather feedback and identify best communication strategies.</td>
</tr>
<tr>
<td>Identify and train staff members responsible for communications. Training will include review of District policy, student and employee privacy and Internet safety.</td>
</tr>
<tr>
<td>Annual review of communication strategies and tools to determine effectiveness and address any safety, privacy or policy issues.</td>
</tr>
</tbody>
</table>

Objective 3j.1.2: Increase use of web portals. This will be done in conjunction with Goal 3i Student Record Keeping.

Benchmarks:
• Year 1: There will be a 10% increase in the number of registered student and parent portal accounts.
• Year 2: There will be a 15% increase in the number of registered student and parent portal accounts.
• Year 3: There will be a 20% increase in the number of registered student and parent portal accounts.

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<tr>
<td>Staff will create a report detailing the number of inactivated accounts and also accounts that are dormant.</td>
<td>Ongoing - annually by November 1.</td>
<td>Operations Supervisory, Student Data; Data Analyst</td>
<td>Reports will be shared with school Registrars and Office Managers. Students and parents will be contacted to provide to offer assistance.</td>
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</tr>
<tr>
<td>Online and site based training will be made available for parents and students.</td>
<td>Ongoing - annually by November 1.</td>
<td>Operations Supervisory, Student Data; Data Analyst</td>
<td>Meeting announcements, agendas, sign in sheets.</td>
<td>Surveys, evaluation forms.</td>
</tr>
</tbody>
</table>

3k. 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.

There are several key stakeholder groups that play a role in the monitoring of the curricular component:

• Principals
• Curriculum and Instruction (CAI) grade level and department level teams
• Technology Advisory Committee
• Curriculum & Guidance Team
• Parent groups (PTA, Boosters)
• Parcel Tax Citizen's Oversight Committee (in regard to technology resources and funding)
• Superintendent's cabinet
• Board of Education

Reporting processes are built into all of these groups which often collaborate and have members that are share a role on more than one of the above listed stakeholder teams.

At every monthly principal meeting, technology updates, debriefings and dialogue are a part of the agenda. This provides an opportunity to share data, solicit feedback and outline strategies for curricular and technology initiatives.

A significant amount of feedback including parent input comes via the Technology Advisory Committee (TAC). This group meets 2 - 3 times a year to discuss the broader scope of technology planning. These meetings are an opportunity to share best practices, successes and express needs that teachers, parents support staff and even students may have. The TAC is a good arena for input,
suggestions and feedback regarding technology strategies prior to higher level approval. The stakeholders on the TAC include Board of Education members, Education Foundation staff, teachers, administrators, parents and instructional partners such as the Palos Verdes Library District.

The district has recently been able to provide greater Professional Development (PD) opportunities for teachers and support staff. At these meetings, staff has been able to collaborate not only at their own grade level but throughout the K-12 structure. This commitment to PD has created opportunity to analyze and provide feedback for the integration of 21st century technology skills and teaching strategies.

The Curriculum & Guidance team meetings are made up of instructional leaders, teachers, administrators and counselors. It is at these meetings that strategic planning and evaluation takes place in a more detailed and focused approach. This is another level of monitoring for technology in regard to curriculum.

Changes to curricular components are also based on Board of Education review and feedback. If necessary, the Board of Education will schedule a Special Board meeting to further study a plan or recommendation and allow stakeholders the opportunity to comment and participate in the discussion.
4. Professional Development

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

Teachers and administrators have embraced technology and continue to demonstrate a strong desire to add more technology to the curriculum.

Fortunately, the District has been able to revitalize its Professional Development (PD) with the transition to the Common Core State Standards (CCSS). The District has also been able to add Teachers on Special Assignment (TOSA) to assist with CCSS and the integration of 21st Century Technology. The Curriculum & Instruction department has been instrumental in the planning and organization of CIA (Curriculum Instruction Assessment) teams. These teams of teachers have been meeting by grade level and subject area to analyze, plan and articulate CCSS and 21st Century learning. Additional professional development opportunities have included:

- "Buy Back" professional development days prior to the start of school and during a pupil free day during school year
- "Site based" training prior to the start of school, after school during the year, early release Mondays, and pupil free days
- "After school" workshops and training
- "One on One & Small Group" sessions provided by District personnel at school sites
- off campus training during summer and school year provided by outside agencies such as the Los Angeles County Office of Education (LACOE), Southwest SELPA or vendor sponsored workshops (e.g., Aeries, Thesys, Successmaker, SMARTTechnology)

The Curriculum & Instruction department is the driving force behind staff development planning and works closely with other departments including Technology Services to map out and design the program offerings for the year. Part of this process is collaboration and feedback from instructional staff. Survey and assessment tools help identify needs and assist in the design process for training.

A summary of this data shows the following:

**Personal Proficiency:**

- a growing use of technology for personal use outside of the classroom
- a growing comfort level in select areas but a desire for a specific type or individualized training
- growth in use of online resources and social media
- a majority of users self-assess at basic to intermediate technology levels
- a need for customized or tailored training for specific subjects or job duties relative to new versions of software or procedures
- a willingness to have more advanced training but a struggle with scheduling
- a belief that with more training, personal productivity will increase
- a desire for greater consistency in content delivery and communications systems and strategies
**Technology Integration:**
- a high value in instructional technology resources
- need for more training on existing and advancing technology
- a request for site based training
- training incorporated to existing meetings and collaboration
- compensation
- portables, eReaders and iPads in the classroom

**Classroom Management Strategies:**
- concern for managing student personal devices in classroom (BYOD)
- employee and student privacy
- value in school to home communication capabilities
- need for managing limited resources related to class size
- additional technical support

**Needs:**
- requests for more site based "coaching/mentoring" for technology
- mobile device training and support (i.e., Chromebooks, iPads)
- more efficient work order routing solution
- flexibility using online media resources
- additional training for collaboration tools (e.g. Edmodo, Google Apps, Microsoft 365)
- more interactive teaching tools
- training to accompany hardware implementations
- assistance with online instructional and intervention resources
- interactive technology continues to grow (whiteboards, clickers, etc.) but there is a need for more and training to accompany
- release time (after school training is difficult to attend)
- site based input and decision making in training design
- a balance of "integration" and "information literacy" versus "skills" training (greater selection based personal skill levels)
- exploration of online courses and content delivery systems (i.e., distance learning, concurrent enrollment)
- consistent and intermediate to advanced training for communication tools (email, Edmodo, Aeries)
- training on digital citizenship and guidelines in regard to social media and a personal versus professional online presence
4b. List of clear goals, measurable objectives, annual benchmarks, and an implementation plan for providing professional development opportunities based on your district needs assessment data (4a) and the Curriculum Component objectives (sections 3d through 3j) of the plan.

Professional Development is an area of need for the District. Past budget situations limited the amount of professional development opportunities for staff. The District has always recognized the value of professional development and has recently been able to put resources towards revitalizing the program.

Throughout education, there has been a significant need for professional development related to the Common Core State Standards. This is also a need in the PVPUSD. Administration also recognizes the need to include technology in order to align 21st Century Learning with CCSS.

The role of classified support staff cannot be overlooked. Technology continues to have an impact on their job duties and responsibilities. Classified employees are playing a vital role in the success of the District's technology program.

Even though technology often provides efficiency, modernization and potential time savings, there are training needs to prepare staff to be able to effectively implement new technology. This plan recognizes the professional development needs for all classifications of employees.

A notable need that will be addressed in the next section is an improved method of tracking employee participation. An online solution that encompasses registration, evaluation and reporting will help the District improve professional development efforts.

Goal 4b.1: All staff (certificated, classified, and management) will have technology staff development opportunities that support both site based and district technology plans and address job related requirements.

Objective 4b.1.1: Staff will be better prepared to utilize technology in their jobs.

Benchmarks:

• Year 1: By June 2015, 25% of all staff will have participated in technology related professional development. This training will be delivered via online resources, small group and one on one training environments.
• Year 2: By June 2016, 50% of all staff will have participated in technology related professional development. This training will be delivered via online resources, small group and one on one training environments.
• Year 3: By June 2017, 75% of all staff will have participated in technology related professional development. This training will be delivered via online resources, small group and one on one training environments.
<table>
<thead>
<tr>
<th>Activity</th>
<th>Timeline</th>
<th>Person(s) Responsible</th>
<th>Monitoring &amp; Evaluation</th>
<th>Evaluation Instrument</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meet with curriculum department, principals and department heads for</td>
<td>July - September (annually)</td>
<td>Asst. Superintendent, Technology &amp; Services; Asst. Supt., Curriculum Director, Curriculum &amp; Instruction; Principals; Classified Management team</td>
<td>Each school and department will develop an annual plan based on site assessment, goals and needs.</td>
<td>Meeting agendas, minutes, schedules/calendars, survey results, evaluations</td>
</tr>
<tr>
<td>evaluation and needs assessment and review.</td>
<td></td>
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<tr>
<td>Evaluate online technical skills training programs.</td>
<td>By September 2014</td>
<td>Asst. Superintendent, Technology &amp; Support Services.</td>
<td>A summary report comparing different online training programs and potential costs will be created and shared with cabinet, principals, Technology Advisory Committee and the Board of Education.</td>
<td></td>
</tr>
<tr>
<td>Develop training calendar for both scheduling purposes and maximization</td>
<td>August - October (annually)</td>
<td>Asst. Superintendent, Technology &amp; Services; Asst. Supt., Curriculum Director, Curriculum &amp; Instruction; Principals; Classified Management team</td>
<td>A master calendar or schedule of events will be available on the PVPUSD website.</td>
<td>Training schedules, sign in sheets, surveys/questionnaires</td>
</tr>
<tr>
<td>of resources so other schools and departments can participate if needs</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>are similar.</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Schedule, facilitate and promote training workshops. Contact trainers,</td>
<td>August - May (annually)</td>
<td>Asst. Superintendent, Technology &amp; Services; Asst. Supt., Curriculum Director, Curriculum &amp; Instruction; Principals; Classified Management team</td>
<td>Information will be shared via principal meetings, staff email, and district websites. Activity will be monitored by administrative team based on participation levels, workshop evaluations and staff surveys.</td>
<td>Registration, evaluations, surveys, signs in sheets, staff recommendations.</td>
</tr>
<tr>
<td>share LACOE opportunities and facilitate &quot;in-house&quot; training by existing</td>
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<td></td>
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<tr>
<td>staff members.</td>
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Goal 4b.2: Professional Development models will be supported by a “coaching/mentoring” model to improve staff access to training resources and support.

Objective 4b.2.1: Greater flexibility and staff development opportunities for staff.

Benchmarks:
- Year 1: A “coaching/mentoring” model will be piloted at each level: elementary, intermediate, high school.
- Year 2: There will be a 50% increase in “coaching/mentoring” resources across the district.
- Year 3: There will be a 75% increase in “coaching/mentoring” resources across the district.
<table>
<thead>
<tr>
<th>Implementation Plan</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Activity</strong></td>
</tr>
<tr>
<td>Develop a technology “coaching/mentoring” model pilot program. Include budget and staffing needs.</td>
</tr>
<tr>
<td>Identify coaches/mentors and provide training.</td>
</tr>
<tr>
<td>Develop a tracking/reporting system for coaching/mentoring activities.</td>
</tr>
<tr>
<td>Develop and calendar district and site based training sessions</td>
</tr>
<tr>
<td>Review and plan year 2 activities and staffing needed to grow the program.</td>
</tr>
<tr>
<td>Review and plan year 3 activities and staffing needed to grow the program.</td>
</tr>
</tbody>
</table>

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

The district's Curriculum & Instruction department oversees certificated professional development but also collaborates with Technology Services, Business Services and Human Resources. Every year, a comprehensive plan is put together which outlines professional development dates and activities for the upcoming school year. Each department has traditionally coordinated its own professional development efforts due to the nature of unique job responsibilities.

Moving forward, district administration has recognized a need to incorporate all professional development programs into an improved scheduling and communication system for the entire district. Most training involves support from other departments (e.g., technology assistance, timesheets and payroll, substitutes for release time, budget approval). Some training offered to individual departments may also benefit other stakeholders in the district. To address these needs and monitor progress towards reaching benchmarks and goals, the district will evaluate an online scheduling, registration and participant tracking system. If possible, the district would like to
include online technology skills courses (e.g., Excel, PowerPoint, Word, Google Apps). Web based training opportunities also help address scheduling issues that often play a role in employee participation.

In addition to district department and the Superintendent's cabinet level analysis, the Technology Advisory Committee will annually review technology related staff development plans. All plans and funding for implementation must be supported by assessment data as well as individual school needs. A summary report will be submitted to the Technology Advisory Committee and Superintendent's cabinet at the end of the school year. This report will address goals, accomplishments and help strategize plans for the following school year. Also included in this report will be assessment data, teacher survey data and an evaluation of the past year. Technology staff development efforts and progress will be included in any district master plan strategies, documentation, reports and committees.
5a. Describe the existing hardware, Internet access, electronic learning resources, and technical support already in the district that will be used to support the Curriculum and Professional Development Components of the plan.

**Existing Hardware: Computers:**

The majority of computer hardware is based on the Windows platform. The district has recently purchased the Microsoft CAMSA (CETPA and Microsoft Strategic Alliance) agreement to take a more cost effective approach to software upgrades and licensing (e.g., Windows 7, MS Office). Macintosh computers are utilized in the many of digital arts and multimedia classes.

District "baseline" technology standards call for every teacher to have an up to date/modern desktop computer to work on “administrative” type of tasks including grades, attendance, email, and student assessments.

Student computers can be found in a variety of locations including classrooms, computer labs, library/media centers and laptop carts. Recent preparation for the SBAC Field Test and future testing has brought more computers to campuses. Most of these computers have been placed in modernized computer labs but there approximately 450 Chromebooks that are now being allocated for student use. Laptop computers can also be found at schools but many older models are now being replaced with smaller, lighter and more efficient tablets and Chromebooks.

Additional baseline classroom technology includes a teacher iPad, Apple TV, projector with a speaker system. The district has not yet reached baseline at every school but expects to in the next year.

For group learning environments, the baseline strategy requires every school to have a lab or mobile technology to accommodate the largest class size on campus. At intermediate and high school campuses, the requirement is at least two of these types of environments and one must be a "traditional" physical lab. All schools have met this baseline goal.

The deployment of computer hardware is determined by each site’s administration and leadership teams. Schools are asked to prioritize technology needs based on site needs, school plans and feedback from stakeholders. Prior to the purchase and acquisition of new technology, requisitions are approved by the district’s Technology Services department to ensure compatibility, consistency and the best pricing.

The planning and research for hardware acquisition begins early in the school year to try and ensure that current year students will benefit immediately.

To help leverage funding, several schools have utilized variations of thin client computing solutions to expand computer resources for students. Schools have also purchased "off-lease" computers to stretch their hardware budgets.

Almost every full time employee of the district has a computer to do their job. For those job classifications that do not require as much access, those employees have the opportunity to log on to computers throughout the campus for tasks such as creating work orders, email or Internet research.
Laptops and netbooks are also a part of the inventory at schools. The district's BYOD initiative has enabled students and staff to use personal devices which has increased access to technology.

**Servers:** Campus servers are evident at each campus and in some cases there are multiple servers. The District is in the process of implementing more virtual servers for cost savings and efficiency. There has also been migration to hosted solutions and cloud storage. Many of the District's technology based curriculum and intervention programs now offer a hosted solution. Staff document storage currently stored locally at each campus but the District is exploring cloud based storage integration with current network directory services to provide more seamless access for users.

**Projectors, Document Cameras, and Interactive solutions:** Almost every classroom has a projector and document camera. Schools are now transitioning to more advanced projection systems that have "short throw" capabilities, are more energy efficient and have reduced costs for replacement bulbs. Many schools have used site funds to purchase interactive white board solutions. District baseline addresses the interactive capabilities by calling for a teacher iPad and Apple TV.

**Interactive electronic response systems:** The advances in mobile technology have enabled staff to use tablet apps to have access to many of the same options traditional "clicker" systems offer. With BYOD, many teachers can use tablet or web based applications for student participation and gather feedback.

**Printing:** A laser printer is part of the standard classroom package of technology. For cost considerations in regard to consumable supplies, inkjet printers are not normally used. There has been a big reduction in printing costs through the use of email, the parent portal and scanning functionality on production copiers at every school.

**Telephone systems:** The district is slowly migrating towards a Voice Over IP (VOIP) telephone system. This is a phased approach that is currently in place at three locations and can be expanded to replace the aging systems as needed. Both budget and services are factors in the migration process.

**Voice amplification systems:** Several classrooms in the district have had a need for voice amplification systems to improve the teaching and learning environment.

**Portable devices (laptops, netbooks, iPads, iPods):** The acquisition and implementation of tablets and Chromebooks has quickly outpaced laptops. Schools have found that they can
accomplish many of their technology goals with less expensive solutions that offer a wider range of technology use options.

**Assistive technology:** The advances in software and resources for portable devices such as iPads, iPods and specially designed AAC devices have expand the technology resources for students with special needs. The Technology and Student services departments collaborate regularly to ensure the needs of students with special needs are being met. Plans are currently in place to modernize the technology resources for service providers.

**Wi-Fi Access:** Every campus has Wi-Fi coverage. On average, elementary schools have 10 - 15 access point and secondary schools have between 35-40. As the use of portable devices grows, the District is prepared to install additional access points to accommodate network demands.

**Existing Internet Access:** The district has a 1 Gb connection to the Internet via COX communications and is planning to upgrade to 2 Gb in July 2014. Each school connects to the district office through the Wide Area Network via fiber circuits from Verizon. All Internet traffic is filtered through the district's Palo Alto firewall and content filtering solution. Wi-Fi access is also available at each campus. The network connectivity speed for each campus to the district office is listed below:

<table>
<thead>
<tr>
<th>PHYSICAL SITES ON DISTRICT NETWORK</th>
<th>BANDWIDTH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dapplegray Elementary School</td>
<td>100 Mbps</td>
</tr>
<tr>
<td>Lunada Bay Elementary School</td>
<td>100 Mbps</td>
</tr>
<tr>
<td>Mira Catalina Elementary School</td>
<td>100 Mbps</td>
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<tr>
<td>Miraleste Elementary School</td>
<td>100 Mbps</td>
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<tr>
<td>Montemalaga Elementary School</td>
<td>100 Mbps</td>
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<tr>
<td>Point Vicente Elementary School</td>
<td>100 Mbps</td>
</tr>
<tr>
<td>Rancho Vista Elementary School</td>
<td>100 Mbps</td>
</tr>
<tr>
<td>Silver Spur Elementary School</td>
<td>100 Mbps</td>
</tr>
<tr>
<td>Soleado Elementary School</td>
<td>100 Mbps</td>
</tr>
<tr>
<td>Vista Grande Elementary School</td>
<td>100 Mbps</td>
</tr>
<tr>
<td>Ridgecrest</td>
<td>500 Mbps</td>
</tr>
<tr>
<td>School</td>
<td>Speed</td>
</tr>
<tr>
<td>--------------------------------------------</td>
<td>--------</td>
</tr>
<tr>
<td>Miraleste Intermediate School</td>
<td>500 Mbps</td>
</tr>
<tr>
<td>Palos Verdes Intermediate School</td>
<td>500 Mbps</td>
</tr>
<tr>
<td>Palos Verdes High School</td>
<td>500 Mbps</td>
</tr>
<tr>
<td>Peninsula High School</td>
<td>500 Mbps</td>
</tr>
<tr>
<td>Cornerstone @ Pedregal</td>
<td>100 Mbps</td>
</tr>
<tr>
<td>Malaga Cove Campus (District Office)</td>
<td>500 Mbps</td>
</tr>
<tr>
<td>Valmonte Campus</td>
<td>Point of entry for ISP (2 Gb)</td>
</tr>
</tbody>
</table>

Additional network information

| Type and speed of connection of District Office to Internet provider – 2 Gb (July 2014). | Service Provider: Cox Communications  
Optical Internet 2 Gb  
1 Gig Ethernet Aggregation Port connection to Cox  
1 T-1 for Business Services to County |
| Internet Service Provider | COX Communications |
| Type and speed of backbone within sites; description of LAN; speed of connection at the desktop | 100Mbps and 1000Mbps to desktop |
| Number of network drops per room; all instructional areas connected to the Internet? | Varies by site; 2-8 drops |
| Wi-Fi access | Every school has Wi-Fi coverage. The number of wireless access points varies and there are plans to continue to expand coverage. |

**Existing Electronic Learning Resources:** Electronic learning resources include:

- Successmaker
- Naviance
- AIMS web
- Destiny (library circulation)
- Accelerated Reader
- Reading Counts
- Read 180
- BrainPop
- Revolution Prep
Existing Technical Support: Overview:

The PVPUSD’s Technology Service department is made up of nine full time and one part time employee. A recent addition to the department has been an Operations Supervisor position to address the growing demands of data reporting and analysis.

Each school site has part time campus Computer/Technology Aide positions that provide support for both technical and instructional needs. Recently, the district has consolidated part time positions at secondary campuses to one full time position. This move has helped the district attract a larger pool of candidates for these jobs. It has also provided much needed consistency for the schools. At the elementary level, the hiring of Library Aides has enabled Computer Aides to focus solely on technical support issues. The Peninsula Education Foundation has played an important role by donating the funding for the 19.5 hours of computer aide support at elementary campuses.

Computer/technology Aides are the first responders to technology problems or issues on campus. These problems can be escalated to a Technology Services Technology Specialist (Field Technician) through the district’s online work order system, OPRA (Online Purchasing and Requisition Accelerator). Help desk support is also provided by a Technology Resource Specialist that works in the Technology Services department at the district office.

The district has recently purchased a licensing agreement for a new work order and inventory tracking system. The SchoolDude system will improve the help request ticketing system and provide an online asset tracking solution.

Support for the district’s student information system is primarily handled by the Operations Supervisor of Student Data and the Data Analyst. This two person team works with site managers, office managers, registrars, secretaries, attendance clerks and all related personnel to assist in all data needs throughout the district. The district has centralized the elementary new student enrollment process which comes under the supervision of the Technology Services department. The Operations Supervisor and Data Analyst play a key role in directing and supporting the Enrollment Center.

Network issues are the responsibility of the district’s Network Manager and Network Analyst who work directly with all support personnel to maintain, troubleshoot and upgrade the district’s data networks.

Support for Edline and online technology systems is strengthened by the efforts of the part time Computer/Tech Aide position that works for Technology Services. Essential duties that this position is responsible for include Edline support, SBAC Field Test support and the Destiny library system support.

At the site level, a stipend and/or hourly compensation has been provided to staff who have chosen to provide peer help for the Aeries student information system used for attendance, teacher gradebooks and report cards.
The district also utilizes the GoToAssist remote desktop support solution. GoToAssist can be utilized by any of the district level support staff to help problem solve user issues at all sites. With GoToAssist staff can share or control computers via the Internet.

The three district technicians and the Network Manager have been Dell certified so that they can work on computers and order parts.

The majority of hardware purchases include extended warranties. Maintenance contracts are purchased primarily for mission critical network hardware. These contracts are reviewed annually.

**District Staff:**

- Administrator, Technology Services
- Operations Supervisor, Student Data
- Network Manager
- Network Analyst
- Data Analyst
- Technology Resource Specialist
- Technician (3 positions)
- Media Specialist (part time)

**School site staff:**

- Elementary schools: Computer/Technology Aide - 1 position, (9.5 hours per week)
- Intermediate schools: Computer/Technology Aide - 1 position, (40 hours per week)
- PV High School: Technology Aide - 2 positions, (2 - 40 hours per week)
- PVP High School: Technology Resource Specialist - 1 position (40 hours per week); Computer/Technology Aide - 1 position (40 hours per week)

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

**Hardware Needed:** With the adoption of a "baseline" strategy, the District has been able to infuse more technology into school campuses. There is still a need to refresh and upgrade aging systems. The end of life status of the Windows XP Operating System has placed some systems into a replace rather than upgrade situation due to memory and processor limitations. Staff will be completing the Windows 7 upgrades over the summer break but during this process there will also be a removal of older systems that can no longer be supported on the district network.

In order to maintain curriculum and instruction goals, the need to refresh hardware resources will be ongoing. As more applications and resources move to online delivery, the type of hardware resources the district acquires will continue to change. Mobile devices and virtual solutions have proven to be more cost effective options for leveraging dollars. The minimal amount of support and ease of use have made Chromebooks an attractive option for schools.
There is a need to continue designing "intelligent/interactive" classrooms to support improved content delivery and teaching strategies. The district would like to see more "smart" classrooms with interactive technology for teachers and students. The goal is to have a more seamless teacher, student, classroom and home learning environment. This is being accomplished at some campuses with interactive whiteboard solutions as well as with iPads and Apple TVs. Across the district, there are still needs at a few elementary campuses and many high school classrooms. The district's BYOD program has helped improve technology interaction between teachers and students.

The STEM curriculum is an area that the district expects continued growth. In order to keep up with curriculum needs, hardware for instruction, design, modeling and testing is a necessity. This is the area where there will be a need to have current and up to date resources. The processing power demands quickly outdate systems. The district is currently looking to expand the STEM curriculum at the elementary level in grades 4 - 5.

When purchasing hardware, the Technology Services department provides multiple purchasing options that meet district guidelines but also considers the budget limitations schools have. Normally, several price points on equipment are provided along with software options and off lease hardware purchasing programs.

**Prioritizing and maximizing resources:** When district funding is available, the Technology Advisory Committee works with stakeholders to establish a formula for equity among the schools for hardware purchases. Schools would combine these funds with site funds to enhance hardware resources as needed. Budget reductions have forced schools to be more creative and utilize site funds, donations and fundraising to acquire technology.

Schools do an excellent job of maximizing hardware resources. As long as hardware is still functioning at an acceptable level for the intended task, age does not necessarily dictate removal. "Older" computers have had their life extended through memory and hard drive upgrades and often been re-purposed to environments that are not as processor or speed intensive.

In addition to maximizing the life and usefulness of hardware, the district has been very open minded in terms of "off lease" and "refurbished" equipment. Many schools have seen their dollars go further with these purchasing options and it is expected that this will continue where applicable.

**Desktop Computers:** There is an ongoing need to refresh desktop computers for instructional and operational applications. The District is currently upgrading and older Windows based workstations to Windows 7. Staff is currently updating hardware inventory (annually completed in the Spring) to evaluate and identify systems to be removed from circulation. This will provide a clear picture of how many systems will need to be retired and replaced. It is important to also note that workstations for support staff will be evaluated.

**Laptops, Tablets & Mobile Devices:** For the 2014 SBAC Field Test, Chromebooks proved to be a good solution. The District has budget and physical plant limitations in terms of room space available to expand or add more traditional computer labs. Because the volume of testing will double next year, the acquisition of additional Chromebooks is necessary. Elementary and Intermediate schools would be able to accommodate testing schedules much easier with the
addition of another testing environment. High School campuses will also be evaluated. The acquisition of more Chromebooks would not be for testing only. Students and staff would be able to utilize these hardware resources throughout the school year.

The District is also evaluating the use of Chromebooks for itinerant special education support staff and case managers where applicable. Many of the programs and reporting tools are accessed online.

**Servers:** Technology staff maintains an inventory and assessment of all servers in the district. A past strategy has been to replace/upgrade at least 2 - 4 servers per year as budgets permit. The implementation of virtual servers has proven to be a more efficient solution in terms of cost and support. The replacement/upgrade strategy is based on several criteria such as: performance, processing needs, age. The district continues to explore "hosted" and "ASP" solutions where applicable to reduce hardware and support costs. The district will need to invest in the "virtualization" of servers.

**Interactive classrooms:** Many elementary school classrooms in the district have interactive technology solutions such as whiteboards or Apple TV and iPads. The district needs towards completion of 100% of classrooms having this type of technology. Baseline standards call for a teacher iPad and Apple TV for every classroom.

Intermediate and high school classrooms have greater needs for interactive solutions. Nearly all have a projector solution but many still need a sound system, teacher iPad and Apple TV. The 2014 Spring inventory of technology resources will provide clarification on specific classroom needs.

In addition to meeting the baseline goals, the other challenge is sustaining and replacing hardware resources. Each year the baseline will be re-evaluated to determine if the existing equipment is adequate.

**Special Education:** Technology plays a significant role in Special Education. Both departments collaborate to address the needs of support staff and students. Special Education classrooms are factored into each school's baseline technology goals and individual student technology needs are addressed through the IEP process. Many schools also have a Learning Center Model of support for students. Learning Centers have a significant technology presence and there is a need to review inventory and if necessary upgrade or replace computers.

**Site Based Decision Making:** Technology Services maintains a close working relationship with all departments and schools in regard to technology needs and strategic planning. The Assistant Superintendent of Technology and Support Services is an active participant in principal and administrative meetings and is also part of the Superintendent's cabinet. This participation helps maintain open lines of communication for any new initiatives and projects. All departments understand the importance of communication for maximizing limited funding, training, implementation and realizing the "total cost of ownership" that is associated when acquiring new technology.
A key component of the organizational structure within the PVPUSD is site based decision making. Schools have a long track record of strong academic performance, a high level of parent participation and the ability to raise funds locally to support school initiatives. The technology program at every school has benefited from these strengths. Because of the active level of participation in funding that schools do take on, decisions on hardware are a collaborative activity. School leadership works closely with the Technology Services department on evaluation, cost analysis and implementation. This process ensures adherence to the district's technology plan, curricular goals and support expectations.

**Electronic Learning Resources Needed:** Electronic resources are adopted at both the district level and site level. Decisions for electronic resources are often based on a recommendation list or an approved list depending on the program area. For example, the district has standardized programs such as Naviance, Destiny and Successmaker. In addition to these standard or baseline programs, schools have supplemented curriculum with various other electronic resources that meet the specific needs of their student populations. Site based decisions are also purchased with site funds. These types of electronic resource purchases are also made through a collaborative effort with the Technology Services department in order to get a true picture of the "total cost of ownership", implementation needs and any hardware compatibility issues.

In terms of needs, the district has to continue to maintain and expand the electronic resources associated with intervention strategies, research databases, college and career counseling and tutoring/test prep resources.

Both the district's Curriculum and Instruction department and site based leadership teams take an active role in the selection process of these resources while consulting the Technology Services department on technical issues. It is during this process that the scope of the project is in regard to licensing, installation locations, rostering and maintenance needs.

**Internet Safety and Digital Citizenship:** The district is currently reviewing online learning resources to support curricular efforts related to Internet Safety, Digital Citizenship and Bullying. There is a need for online instructional resources as well as tracking and accountability of student participation.

**Assessment & Data Analysis:** The transition to the Common Core State Standards is playing a role in assessment and data analysis as the state determines future measurement and accountability procedures with the elimination of STAR testing and API. The district is awaiting the release of SBAC benchmark assessments. At this time, the district is in somewhat of a holding pattern as curriculum alignment and benchmark assessments are completed. There will be a need to incorporate this data into student record keeping in the future.

**Networking and Telecommunications Infrastructure Needed:** Wireless network access needs continue to grow throughout the district. There is an ongoing need to increase the level of coverage and bandwidth in classrooms to accommodate the increase in mobile devices use. The district will
also need to consider acquiring a controller system for this hardware or opt to go with a cloud based management system.

"Core" network switches have recently been upgraded but "edge" switches will need to be evaluated for replacement. The district uses a "sparing" strategy approach by keeping "spare" hardware devices available in inventory versus the high cost of annual warranty licenses. This can only be done for non-mission critical devices such as "edge" switches.

The current Cisco ASA firewall is getting older and a replacement strategy needs to be developed. An evaluation of network hardware will be done annually.

**Physical Plant Modifications Needed:** The district continues to move forward with its facilities master plan which does involve technology. The Technology Services department is consulted on all new construction and modernization projects. Evaluation and planning issues include: electrical capacity, network expansion, security, ventilation, and network access locations for voice, data, security and public address services.

Concerns for existing physical plant conditions include:

- improved ventilation and temperature/climate control for network equipment locations
- upgrade of network design with "home run" wiring strategies to replace any "daisy chained" or "hopped" designs
- expansion of VOIP telephone system as budget allows for cost savings and efficiency purposes
- improved physical security for network equipment locations
- improved backup power solutions as budget allows (*the Peninsula experiences a large amount of power fluctuations and outages*)
- modernize and upgrade data centers, Main Distribution Frames (MDF) and Intermediate Distribution Frames (IDF)

**Technical Support Needed:** Recent staffing changes have helped increase the level of technology support. At the district level, an Operations Supervisor of Student Data was hired and a vacant Network Analyst position has been filled.

At the school sites, secondary campuses have consolidated two part time Computer Aide positions to one full time position which has improved support.

At the elementary level, part time Library/Media Aide positions have been hired which has allowed the Computer Aide staff to devote more time to technical support issues.

In regard to needs, Administration is pleased with recent changes and pleased with restructured model. Administration will continue to evaluate staffing needs as technology expands.
5c. List of clear annual benchmarks and a timeline for obtaining the hardware, infrastructure, learning resources and technical support required to support the other plan components as identified in Section 5b.

<table>
<thead>
<tr>
<th>Year 1 Benchmark:</th>
<th>40% of network servers will have been upgraded or virtualized. Increase the number of WiFi access points by 5%. Upgrade or remove all Windows XP systems. 80% of classrooms will have all recommended baseline technology hardware.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Recommended Actions/Activities</strong></td>
<td><strong>Timeline</strong></td>
</tr>
<tr>
<td>Identify servers to be upgraded/virtualized</td>
<td>Annually by July</td>
</tr>
<tr>
<td>Purchase and install necessary server hardware and licenses.</td>
<td>Annually by October</td>
</tr>
<tr>
<td>Identify WiFi access coverage areas that need to be improved.</td>
<td>Annually by August</td>
</tr>
<tr>
<td>Purchase and install WiFi access points.</td>
<td>Annually by October</td>
</tr>
<tr>
<td>Inventory campus and district department technology resources to ensure growth towards achieving, maintaining or expanding baseline technology goals.</td>
<td>Annually prior to end of school year, preferably by May</td>
</tr>
<tr>
<td>Analyze inventory data and work with site leadership to prioritize campus needs related to baseline technology goals.</td>
<td>By July 2014</td>
</tr>
<tr>
<td>Purchase and deploy baseline technology resources.</td>
<td>By October 2014</td>
</tr>
<tr>
<td>Upgrade or retire Windows XP workstations.</td>
<td>By September 2014</td>
</tr>
<tr>
<td>Purchase additional technology resources for 2015 testing needs that can also be deployed for student use pre and post testing windows.</td>
<td>By October 2014</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year 2 Benchmark:</th>
<th>50% of network servers will have been upgraded or virtualized. Increase the number of WiFi access points 5%. 90% of classrooms will have all recommended baseline technology hardware.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Recommended Actions/Activities</strong></td>
<td><strong>Timeline</strong></td>
</tr>
<tr>
<td>Identify servers to be upgraded/virtualized.</td>
<td>Annually by July</td>
</tr>
<tr>
<td>Purchase and install necessary server hardware and licenses.</td>
<td>Annually by October</td>
</tr>
<tr>
<td>Identify WiFi access coverage areas that need to be improved.</td>
<td>Annually by August</td>
</tr>
<tr>
<td>Purchase and install WiFi access points.</td>
<td>Annually by October.</td>
</tr>
<tr>
<td>----------------------------------------</td>
<td>----------------------</td>
</tr>
<tr>
<td>Inventory campus and district department technology resources to ensure growth towards achieving, maintaining or expanding baseline technology goals.</td>
<td>Annually prior to end of school year, preferably by May</td>
</tr>
<tr>
<td>Analyze inventory data and work with site leadership to prioritize campus needs related to baseline technology goals.</td>
<td>By July 2015</td>
</tr>
<tr>
<td>Purchase and deploy baseline technology resources.</td>
<td>By October 2015</td>
</tr>
<tr>
<td>Upgrade or retire Windows XP workstations.</td>
<td>By September 2015</td>
</tr>
<tr>
<td>Purchase additional technology resources for 2016 testing needs that can also be deployed for student use pre and post testing windows.</td>
<td>By October 2015</td>
</tr>
</tbody>
</table>

**Year 3 Benchmark:** 75% of network servers will have been upgraded or virtualized. Increase the number of WiFi access points 5%. 100% of classrooms will have all recommended baseline technology hardware.

<table>
<thead>
<tr>
<th>Recommended Actions/Activities</th>
<th>Timeline</th>
<th>Person(s) Responsible</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identify servers to be upgraded/virtualized.</td>
<td>Annually by July.</td>
<td>Network Manager, Network Analyst, Technology Services support staff.</td>
</tr>
<tr>
<td>Purchase and install necessary server hardware and licenses.</td>
<td>Annually by October.</td>
<td>Network Manager, Network Analyst, Technology Services support staff.</td>
</tr>
<tr>
<td>Identify WiFi access coverage areas that need to be improved.</td>
<td>Annually by August.</td>
<td>Network Manager, Network Analyst, Technology Services support staff.</td>
</tr>
<tr>
<td>Purchase and install WiFi access points.</td>
<td>Annually by October.</td>
<td>Network Manager, Network Analyst, Technology Services support staff.</td>
</tr>
<tr>
<td>Inventory campus and district department technology resources to ensure growth towards achieving, maintaining or expanding baseline technology goals.</td>
<td>Annually prior to end of school year, preferably by May.</td>
<td>Site technology staff, Technology Services support staff.</td>
</tr>
<tr>
<td>Analyze inventory data and work with site leadership to prioritize campus needs related to baseline technology goals.</td>
<td>By July 2016.</td>
<td>Assistant Superintendent, Technology and Support Services, Principals, Technology Services staff.</td>
</tr>
<tr>
<td>Purchase and deploy baseline technology resources.</td>
<td>By October 2016.</td>
<td>Site technology staff, Technology Services support staff.</td>
</tr>
<tr>
<td>Upgrade or retire Windows XP workstations.</td>
<td>By September 2016.</td>
<td>Site technology staff, Technology Services support staff.</td>
</tr>
<tr>
<td>Purchase additional technology resources for 2017 testing needs that can also be deployed for student use pre and post testing windows.</td>
<td>By October 2016.</td>
<td>Technology Services support staff.</td>
</tr>
</tbody>
</table>
5d. Describe the process that will be used to monitor Section 5b and the annual benchmarks and timeline of activities including roles and responsibilities.

The process for monitoring occurs at multiple levels:

- Technology Advisory Committee
- Board of Education updates
- Principal meetings
- School site planning
- Parcel Tax Citizens' Oversight Committee
- PTA/Booster annual gifting and review
- Superintendent's cabinet

Because schools often purchase technology resources with the support of donations from PTA and Booster organizations, their leadership teams collaborate with schools to help prioritize, identify funds and review curricular goals based on principal and teacher feedback. Together these site leadership teams develop the priorities and strategies for the donated funds. The Technology Services department is also a part of this process.

With site based decision making and autonomy, schools have flexibility to address their student's individual needs within the overall hierarchy of meeting baseline technology goals, district curriculum and instructional strategies. It is at principal meetings, PTA council, oversight committee meetings and through Board of Education updates that many of these "best practices" are shared. This type of collaborative structure also ensures consistency and continuity of support for technology hardware and software resources. An important part of the process of any technology resource acquisition is approval by the Technology Services department. This step ensures the following: best pricing, software and hardware standardization, accurate estimates in regard to "total cost of ownership" for projects, and the ability to leverage training for group purchases.

Having everyone "in the loop" has reduced costs, implementation and support turnaround times. Timelines for specific projects or initiatives are outlined during the planning process and monitored by the individual project stakeholders or for larger district projects the management team and the Board of Education. The Board of Education receives weekly updates from the Administrator of Technology Services and the Superintendent.

Inventories are monitored by the individual school campuses as well as the Technology Services department. Hardware reporting and monitoring capabilities are available through the network. Software licensing and control is handled by the Technology Services department.
6. Funding and Budget

6a. List of established and potential funding sources.

Established Funding Sources: School Site:

- PTA
- Booster Clubs
- Fundraisers
- Donations

District:

- CCSS implementation funding
- E-Rate (39% discount level)
- California Teleconnect Fund
- General Fund
- Categorical Funds
- - Title II Part D
- - Carl Perkins
- Parcel Tax
- Bond measures R & S modernization projects (only for approved projects that include technology)
- State construction funds
- Peninsula Education Foundation
- Honda Grant

Ineligible funding:

- Microsoft settlement (not eligible)
- EETT Competitive (not eligible)

Potential Funding Sources:

- Parcel Tax (additional funds than current levels)
- Donations
- Developer Fees
- State construction funds (where applicable)
- Peninsula Education Foundation
- Grants
6b. Estimate annual implementation costs for the term of the plan.

<table>
<thead>
<tr>
<th>Item Description</th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
<th>Funding Source Including E-Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1000-1999 Certificated Salaries</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Certificated Salaries</td>
<td>$180,384</td>
<td>$185,796</td>
<td>$191,369</td>
<td>General Fund</td>
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<tr>
<td><strong>2000-2999 Classified Salaries</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Classified Salaries: districtwide support</td>
<td>$671,303</td>
<td>$691,442</td>
<td>$712,185</td>
<td>General Fund, Food Services</td>
</tr>
<tr>
<td>Classified Salaries: site based technology support</td>
<td>$584,915</td>
<td>$602,462</td>
<td>$620,536</td>
<td>PEF, General Fund</td>
</tr>
<tr>
<td>New technology implementation staffing</td>
<td>$35,000</td>
<td>$20,000</td>
<td>$15,000</td>
<td>General Fund, Parcel Tax</td>
</tr>
<tr>
<td><strong>4000-4999 Materials and Supplies</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Library software</td>
<td>$16,000</td>
<td>$16,000</td>
<td>$16,000</td>
<td>General Fund</td>
</tr>
<tr>
<td>Remote desktop technical support software licensing</td>
<td>$465</td>
<td>$465</td>
<td>$465</td>
<td>General Fund</td>
</tr>
<tr>
<td>Department copier lease and supplies</td>
<td>$2,900</td>
<td>$2,900</td>
<td>$2,900</td>
<td>General Fund</td>
</tr>
<tr>
<td>Student data reporting supplies and materials</td>
<td>$6,500</td>
<td>$6,500</td>
<td>$6,500</td>
<td>General Fund</td>
</tr>
<tr>
<td><strong>5000-5999 Other Services and Operating Expenses</strong></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Online college/career planning</td>
<td>$18,000</td>
<td>$18,000</td>
<td>$18,000</td>
<td>General Fund</td>
</tr>
<tr>
<td>Emergency Notification</td>
<td>$12,200</td>
<td>$12,200</td>
<td>$12,200</td>
<td>PTA Gifting, General Fund</td>
</tr>
<tr>
<td>E-Mail archiving and hosting</td>
<td>$12,500</td>
<td>$12,500</td>
<td>$12,500</td>
<td>General Fund</td>
</tr>
<tr>
<td>School websites and web portals</td>
<td>$42,000</td>
<td>$42,000</td>
<td>$42,000</td>
<td>General Fund</td>
</tr>
<tr>
<td>Intervention Software Licensing</td>
<td>$30,000</td>
<td>$30,000</td>
<td>$30,000</td>
<td>Categorical, School site funds, General fund</td>
</tr>
<tr>
<td>Core network hardware maintenance/warranty/support</td>
<td>$24,000</td>
<td>$24,000</td>
<td>$24,000</td>
<td>General, Parcel Tax</td>
</tr>
<tr>
<td>District website: licenses, design, maintenance, upgrades</td>
<td>$9,500</td>
<td>$9,500</td>
<td>$9,500</td>
<td>General, Parcel Tax</td>
</tr>
<tr>
<td>Online work order system and asset management</td>
<td>$7,500</td>
<td>$7,500</td>
<td>$7,500</td>
<td>General Fund</td>
</tr>
<tr>
<td>Online survey tool</td>
<td>$200</td>
<td>$200</td>
<td>$200</td>
<td>General Fund</td>
</tr>
<tr>
<td>Active Directory user integration software licensing and support</td>
<td>$11,000</td>
<td>$11,000</td>
<td>$11,000</td>
<td>General Fund</td>
</tr>
<tr>
<td>Item</td>
<td>2014</td>
<td>2015</td>
<td>2016</td>
<td>Source</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>---------</td>
<td>---------</td>
<td>---------</td>
<td>-------------------------------</td>
</tr>
<tr>
<td>Server warranties</td>
<td>$6,500</td>
<td>$6,500</td>
<td>$6,500</td>
<td>General Fund</td>
</tr>
<tr>
<td>Technology Professional Development</td>
<td>$25,000</td>
<td>$25,000</td>
<td>$25,000</td>
<td>General Fund, categorical, site funds, gifting, donations, PEF</td>
</tr>
<tr>
<td>Electronic Record Archiving</td>
<td>$20,000</td>
<td>$20,000</td>
<td>$20,000</td>
<td>General Fund</td>
</tr>
<tr>
<td>Data backup system licensing and support</td>
<td>$2,200</td>
<td>$2,200</td>
<td>$2,200</td>
<td>General Fund</td>
</tr>
<tr>
<td>Desktop security software licensing</td>
<td>$4,500</td>
<td>$4,500</td>
<td>$4,500</td>
<td>General Fund</td>
</tr>
<tr>
<td>Content filter/firewall licensing and support</td>
<td>$15,650</td>
<td>$15,650</td>
<td>$15,650</td>
<td>General, Parcel Tax</td>
</tr>
<tr>
<td>SIS licensing, maintenance and support</td>
<td>$39,360</td>
<td>$39,360</td>
<td>$39,360</td>
<td>General Fund</td>
</tr>
<tr>
<td>District website maintenance and support</td>
<td>$7,500</td>
<td>$7,500</td>
<td>$7,500</td>
<td>General Fund</td>
</tr>
<tr>
<td>Network monitoring software license</td>
<td>$790</td>
<td>$790</td>
<td>$790</td>
<td>General Fund</td>
</tr>
<tr>
<td>Anti-Virus</td>
<td>$10,500</td>
<td>$10,500</td>
<td>$10,500</td>
<td>General Fund</td>
</tr>
<tr>
<td>WiFi Management Software Licensing</td>
<td>$29,180</td>
<td>$29,180</td>
<td>$29,180</td>
<td>General Fund</td>
</tr>
<tr>
<td>STEM Professional Development (cost TBD)</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>Grant Funding</td>
</tr>
<tr>
<td>STEM Software Licensing (cost TBD)</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>Grant Funding, PEF</td>
</tr>
</tbody>
</table>

**6000-6999 Equipment**

<table>
<thead>
<tr>
<th>Item</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Desktop computer refresh</td>
<td>$135,000</td>
<td>$135,000</td>
<td>$0</td>
<td>CCSS Implementation Funds, Parcel Tax, General Fund, Gifting/Donations</td>
</tr>
<tr>
<td>Interactive classroom hardware</td>
<td>$110,000</td>
<td>$110,000</td>
<td>$0</td>
<td>CCSS implementation funds, Donations, Gifting, General Fund</td>
</tr>
<tr>
<td>Server refresh/upgrade/virtualization</td>
<td>$20,000</td>
<td>$20,000</td>
<td>$20,000</td>
<td>General fund</td>
</tr>
<tr>
<td>Document cameras</td>
<td>$22,500</td>
<td>$22,500</td>
<td>$0</td>
<td>CCSS Implementation Funds</td>
</tr>
<tr>
<td>Chromebooks</td>
<td>$210,000</td>
<td>$0</td>
<td>$0</td>
<td>CCSS Implementation Funds</td>
</tr>
<tr>
<td>Tablets for interactive teaching, instruction, assessment</td>
<td>$75,000</td>
<td>$75,000</td>
<td>$0</td>
<td>CCSS Implementation Funding</td>
</tr>
<tr>
<td>Totals:</td>
<td>$2,398,047</td>
<td>$2,216,145</td>
<td>$1,913,035</td>
<td></td>
</tr>
</tbody>
</table>

Palos Verdes Peninsula Unified  July 1, 2014 - June 30, 2017  Page 61
6c. Describe the district's replacement policy for obsolete equipment.

The adoption of a baseline strategy for technology resources has helped guide the upgrade and replacement of technology resources. Annual inventory conducted at each campus helps in the identification and planning process. The district has recently purchased an online asset tracking system that will make asset inventory and tracking more efficient. Depending on the volume of needs, the district prioritizes the most critical needs when replacing and/or upgrading equipment. Technology Services staff collaborates with site leadership to help identify and prioritize equipment needs.

The district will continue to re-allocate resources whenever possible. As older technology is replaced, it is migrated to environments that require less computing power and can still have a viable use for the equipment. Like many school districts, users continue to do an excellent job of maximizing the life of equipment. The focus has shifted to "usability" versus "age" of equipment. Staff attempts to evaluate the functionality and effectiveness of equipment rather than the age of the equipment. Support staff has done a good job of upgrading and re-using parts from older equipment whenever possible.

The process for removing obsolete equipment follows a very structured process to ensure the following:

- proper removal from district inventory/asset management
- proper destruction/removal of any data on hard drives
- proper recycling/reuse/disposal of e-waste

Any funds that are generated from e-waste recycling efforts are applied towards refresh and replacement efforts.
6d. Describe the process that will be used to monitor Ed Tech funding, implementation costs and new funding opportunities and to adjust budgets as necessary.

<table>
<thead>
<tr>
<th>Individual(s) Responsible</th>
<th>Responsibilities</th>
<th>Communication/Feeback Process</th>
</tr>
</thead>
</table>
| Site Administrators       | • Develop and monitor site budgets and collaborates with Asst. Superintendent of Technology regarding district funding allocations for technology  
• Work with site-based planning teams to determine site technology needs and priorities  
• Collaborate with site stakeholders on use of gifting and donation funds allocated to technology purchases  
• Complete required surveys & reports | • Report progress and needs as assessed  
• Submit recommended plan changes |
| Assistant Superintendent, Technology and Support Services | • Approves all Tech PO’s (hardware and software)  
• Provides quotes and facilitates acquisition  
• Manages Parcel Tax technology funding allocations, CCSS technology funding allocation | • Regular reports to Technology Advisory Committee, Citizens’ Oversight Committee, Superintendent’s Cabinet, Board of Education updates and presentations |
| Assistant Superintendent, Curriculum | • Review for categorical program compliance and for alignment to site and district plans  
• Oversees grant opportunities | • Report to other stakeholders as appropriate |
| Director of Fiscal Services | • Budget check  
• Interim reporting  
• Budget and expense review | • Approval sent to Purchasing  
• Alerts sent to site principals |
7. Monitoring and Evaluation

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

There are several key stakeholder groups for evaluating and providing feedback on the plan's overall progress and impact on teaching and learning (in no particular order):

- Technology Advisory Committee
- Principals
- Parcel Tax Citizen’s Oversight Committee
- PTA
- Peninsula Education Foundation
- School site leadership meetings
- Superintendent and cabinet
- Board of Education

As noted earlier, site-based decision-making is a large part of the culture in the PVPUSD. All schools have achieved and been recognized for their high levels of academic achievement. Teacher, site administration and community stakeholder buy in is key to being successful. All of these groups play an integral part of the planning and evaluation.

Site leadership plays a very large role in the success of technology at a school. Principals and school administrators must believe and share in the vision of the plan’s goals, actions and implementation as it relates to their individual school. Throughout this plan there is a constant theme of site-based decision-making. The role of the principal and his/her leadership teams is part of the monitoring and evaluation. This will happen at site meetings, district level principal meetings and meetings that schools have with their stakeholders. The Administrator of Technology Services will take an active role in sharing the district’s plan with these stakeholders and include their feedback in the evaluation process.

At the district level, the Technology Advisory Committee is designed to be the group that is representative of stakeholders throughout the district. The role of the Technology Advisory Committee is to evaluate, monitor and recommend from a global or district wide perspective. While it is important to have individual school planning and decision making, there is a need to adhere to a district vision. This responsibility may include things such as developing baseline standards, policy, guidelines and benchmarks for the entire district. The Technology Advisory Committee will actively monitor the plan on an annual basis.

The Superintendent’s cabinet is the administrative arm for evaluating the plan. This group performs some of the critical decision-making and recommendations based on the feedback from the Technology Advisory Committee, principals, and stakeholders. The Assistant Superintendent of Technology and Support Services is responsible for bringing the feedback and issues forward to this group so that recommendations can be given to the Board of Education for final decisions. The Superintendent’s cabinet communicates with all of the previously mentioned stakeholders.

The Measure M (Parcel Tax) Citizen’s Oversight Committee, PTA and Peninsula Education Foundation are part of the evaluation process in that they are monitoring and evaluating the
district’s efforts for the community and provide feedback. They represent parents and citizens that are directly responsible for funding that supports technology. The Assistant Superintendent of Technology and Support Services communicates directly with the leadership of these groups, attends their meetings and provides updates to keep them informed about technology in the PVPUSD.

The PVPUSD Board of Education is the highest level of the evaluation and monitoring process. The Board of Education determines the specific courses of action based on recommendations from the staff and the supporting data. They are informed throughout the year with regular updates from the Superintendent’s cabinet along with presentations at board meetings. They approve the district’s Technology Plan, School Site Plans and all policy.

The PVPUSD believes that data helps drive decisions. This is true for the Technology Plan. Throughout the evaluation process, data analysis will help determine progress and identify strengths and weaknesses.

7b. Schedule for evaluating the effect of plan implementation.

The PVPUSD Technology Plan is a living document. The district’s Technology Advisory Committee takes on the primary responsibility for the evaluation process. Recommendations and feedback developed from this group are communicated to the Superintendent’s Cabinet and the Board of Education. The stakeholders recognize that the plan may need to undergo updates, modifications and changes over the course of the next three years. There are many factors that may impact goals and strategies.

The evaluation process will be ongoing but formal processes include the following:

- Technology Advisory Committee meetings (3 - 4 per year)
- Principal meetings (bi-weekly)
- Superintendent’s Cabinet meetings (weekly)
- Board of Education updates (weekly)
- Board of Education presentation (annually or as requested)

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

The chart below displays the lines of communication for the process of evaluation. This demonstrates that feedback and change can take several different paths. The PVPUSD technology plan will need to be reviewed, updated and able to make adjustments for the unexpected.

Information is shared throughout the year to stakeholder groups. The Assistant Superintendent of Technology and Support Services participates in all of the meetings and activities listed in 7b above. Information is shared weekly with different stakeholders and at longer intervals for those that meet less frequently. Communication also occurs electronically via email, Superintendent updates, social media feeds and postings on the District website. Print media targeted to the entire community often includes highlights of significant developments in District technology.
Annual Review of Goals Year One:

Annual Review of Goals Year Two:

Annual Review of Goals Year Three:
8. Collaborative Strategies with Adult Literacy Providers

Based on data collected on parent education levels, the need for adult literacy programs is not that great in the Palos Verdes community.

**PVPUSD Parent Education Levels**

![Pie chart depicting parent education levels: Not HS Grad 0%, HS Graduate 2%, Some College 8%, College Grad 36%, Post Grad 50%, Unknown/Decline to State 4%]

Even though the needs may be minimal, the district has identified adult literacy program providers to collaborate with. These partnerships include:

- PVPUSD Adult Education
- Southern California Regional Occupation Center
- Palos Verdes Library District

The PVPUSD has many international families who move to the district based on parent employment opportunities in the South Bay and Los Angeles region. Many parents who are not native English speakers take advantage of PVPUSD Adult Education ESL classes.
9. Effective, Researched-Based Methods and Strategies

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

The Palos Verdes Peninsula Unified School District has regularly utilized and referenced state and national standards and recognized research in developing and updating its technology plan. Curriculum goals and strategies are based on:

- National Education Technology Standards and proposed rubrics
- Recommended Digital Literacy & Technology Skills to Support the California Common Core State Standards - developed by the Fresno County Office of Education
- Common Core State Standards K-12 Technology Skills Scope and Sequence - developed by Long Beach Unified School District

Resources used for educational technology research include:

- The International Society for Technology in Education (ISTE)
- Center for Applied Research in Educational Technology (CARET)
- Educational Resource Information Center

Relevant Research


Summary/Abstract: Under pressure to keep spending down but also keep pace with rapid technology changes, many districts are future-proofing their schools--trying to get the most out of their tech spending by providing solutions they will be able to use now and in the future without major, expensive infrastructure overhauls. The idea is growing in popularity across the nation. Implementing and maintaining the right technology infrastructure is not a technical issue but a "strategic issue that requires thought and leadership," Peggy Munkittrick, senior director of product strategy for Schoolwires, wrote in a white paper, "The K-12 Unified Technology Model for Creating a Technology Framework in Support of Strategic Initiatives," which Schoolwires released in July 2010. As districts develop their technology plans, she continued, "it is essential to consider how their technology infrastructure can more effectively leverage the Web 2.0 technologies." This article discusses several technologies that are helping districts improve infrastructure efficiencies and reduce costs while providing new instructional capabilities.

Relevancy: 3a, 3b, (access and support for teaching and learning); 3h (student access); 3j (home-school communication); 5a, 5b, (infrastructure); 6a, 6b, 6c, (funding and budget)

Summary/Abstract: The Common Core State Standards Initiative is the latest effort to reform education through standards. This article examines how the Standards promise to prepare students for the changing world of the 21st century, yet do not consider the changing nature of literacy--especially the centrality of the Internet as a 21st century text, and online reading comprehension as a problem-based experience. States and districts have begun to adopt and adjust the Common Core Standards as their own. This article seeks to inform teachers' understanding of the Common Core State Standards, so they can be active players in shaping literacy education based on the Standards.

Relevancy: 3c (Curricular goals); 3d (teaching and learning goals); 3e (acquiring technology skills and literacy skills); 4b (providing PD opportunities)


Summary/Abstract: Enrollment in K-12 online learning is growing at an exponential rate throughout the United States. Currently, all 50 states offer K-12 online learning opportunities. Some states such as Michigan, Alabama, New Mexico, and Idaho have passed legislative measures requiring K-12 students to complete at least one online learning experience by the time they graduate high school. Because of this growth, 21st century educators need to be prepared to teach online. This study shares the results of a national survey targeting teacher education programs' efforts to help prepare preservice teachers for K-12 online learning. Data show that only 1.3% of responding teacher education programs are addressing this need via field experiences in virtual schools. Implications for policy and practice in the field of teacher education are examined.

Relevancy: 3e (Acquiring technology skills and information literacy skills)


Summary/Abstract: As the call for professional learning that incorporates ongoing feedback and support increases and resources to address that need decline, more states, districts, schools, and individuals are turning to technology. Technology creates significant opportunities for more focused professional learning, especially when it is effectively integrated into a comprehensive system for professional learning. While technology can enhance professional learning, how educators use it will determine the degree to which it can influence educator practice and results for students. As individuals, schools, districts, and states strive to meet the demand for professional learning generated by Common Core standards and other emerging initiatives in education, effective use of technology requires careful consideration and planning.
**Relevancy:** 3d (teaching and learning goals); 4b (providing PD opportunities); 6b (annual implementation costs)


**Summary/Abstract:** Given the challenges facing higher education in the fast-changing educational and social environment, what can be learned from an instructor who has braved the rapidly changing stream of technologies and has subsequently developed a personal and productive approach to using emerging technologies to teach better and farther? What aspects of instruction and technology savvy can turn the frustrations when integrating new technologies into an adventure, with new learning and new relationships? And, where does the role of vision fit into this journey? And, what about instructor "attitude"? Student attitude? This article gathers the reflections of an early adopter who continuously develops, pilots, studies, and reports-on technology in online courses, examining a variety of aspects of technology-mediated instruction, sharing experience and research, and ultimately developing an applied, practical operational guide that can frame the questions, considerations, and challenges facing instructors venturing into 21st century technologies.

**Relevancy:** 3b, (access and support for teaching and learning); 3c (district curricular goals); 3d, (teaching and learning goals); 3h (student access); 3j (home-school communication); 4b, (professional development)

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

The Palos Verdes Peninsula Unified School District prides itself on the academic achievements of its students, the efforts of its instructional staff and the partnership between schools and families that plays such a significant role. Technology continues to be an area that all stakeholders realize can bring about innovative strategies and learning opportunities for students.

Key areas that the district continues to develop:

- STEM curriculum and programs
- Online content delivery and concurrent enrollment
- Online learning resources
- Student technology clubs and competitions
The STEM curriculum and courses available to students continues to expand. Several years ago, this movement began through efforts of projects like the Defense Advanced Research Projects Agency (DARPA) program for high school students. This was one of the few high school programs in the country at the time. This program developed into the Palos Verdes Institute of Technology (PVIT) and Science Math Engineering Robotics Technology (SMERT) programs. A partnership with Project Lead the Way, grants from the American Honda Corporation and the Peninsula Education Foundation helped both high schools strengthen these programs. The national movements toward STEM curriculum have also helped expansion now to the district's Intermediate schools.

Previous technology plan goals have been met with the success of Intermediate School programs. The next step is an elementary STEM program. Plans are currently under way to pilot a program for 4th - 5th grade students at every elementary school with a target date of 2014-2015.

The number of technology related clubs and after school programs continues to grow. Through the dedication of teachers, parents and volunteers, PVPUSD students routinely place in the top tier of local, state and national technology related competitions. These clubs and activities have helped build the relationship with local businesses and industry professionals.

In regard to online content delivery and distance learning, the district is revisiting strategies to address growing student requests to take online courses. The Board of Education is well aware of the changes in education with regard to online and distance learning, alternative schools and the impact of technology. High school principals and counseling teams along with the Curriculum and Technology departments are actively reviewing online options to offer students. There is a common understanding among stakeholders that technology plays an important role providing alternative options for a wide range of students the district serves.

Students in the Palos Verdes Peninsula Unified School District are high academic achievers. Test scores for all schools are regularly in the top performance percentile ranges. Many schools have received recognition as California Distinguished Schools. Technology is prevalent in many homes. Survey data continuously shows that parent and community stakeholders place a high value on technology in schools.

Technology continues to play a significant role throughout the curriculum and instructional programs for both district wide and school site initiatives. There has been an ongoing increase of electronic and online resources that are support the curriculum program. Technology solutions are now often the first priorities considered or tools evaluated when trying change or improve a program area. All areas of the curriculum for students are currently being served and will continue to be with the help of technology. Some of the various student needs and populations include:

- College and career planning
- Special Education
- Intervention
- Transition to Independent Living (Special Education)
- Intervention
- Intermediate and high school mathematics
- Engineering
- K-8 Reading
- Research materials and databases
- Advanced placement testing and preparation
• Assistive technology
• Broadcast media
• Speech and debate

Additional strategies:
• Expansion of online university/college credit courses
• Virtual universities and e-learning abroad
• Expansion of interactive/online counseling services
• Streaming video delivery of instruction
• Podcasting course content
• Technology focused internship opportunities with leading South Bay region corporations, academic institutions and businesses
• Career Technical Education course offerings through partnerships with the So Cal Regional Occupational Center, local Community Colleges and Universities
In order to be approved, a technology plan needs to "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.

<table>
<thead>
<tr>
<th>1. PLAN DURATION CRITERION</th>
<th>Page in District Plan</th>
<th>Example of Adequately Addressed</th>
<th>Example of Not Adequately Addressed</th>
</tr>
</thead>
<tbody>
<tr>
<td>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)</td>
<td>3, 14-31, 35-40, 44-46, 59-61, 65-66</td>
<td>The technology plan describes the district's use of education technology for the next three to five years. (For new plan, description of technology plan development in the first year is acceptable). Specific start and end dates are recorded (7/1/xx to 6/30/xx).</td>
<td>The plan is less than three years or more than five years in length. Plan duration is 2008-11.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2. STAKEHOLDERS CRITERION</th>
<th>Page in District Plan</th>
<th>Example of Adequately Addressed</th>
<th>Example of Not Adequately Addressed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description of how a variety of stakeholders from within the school district and the community-at-large participated in the planning process.</td>
<td>4, 5</td>
<td>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.</td>
<td>Little evidence is included that shows that the district actively sought participation from a variety of stakeholders.</td>
</tr>
</tbody>
</table>
### 3. CURRICULUM COMPONENT CRITERIA

Corresponding EETT Requirement(s): 1, 2, 3, 8, 10, and 12 (Appendix D).

<table>
<thead>
<tr>
<th>a. Description of teachers’ and students’ current access to technology tools both during the school day and outside of school hours.</th>
<th>Page in District Plan</th>
<th>Example of Adequately Addressed</th>
<th>Example of Not Adequately Addressed</th>
</tr>
</thead>
<tbody>
<tr>
<td>7-10</td>
<td>The plan describes the technology access available in the classrooms, library/media centers, or labs for all students and teachers.</td>
<td>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.</td>
<td></td>
</tr>
</tbody>
</table>

| b. Description of the district's current use of hardware and software to support teaching and learning. | 10-14 | The plan describes the typical frequency and type of use (technology skills/information and literacy integrated into the curriculum). | The plan cites district policy regarding use of technology, but provides no information about its actual use. |

| c. Summary of the district's curricular goals that are supported by this tech plan. | 14-16 | 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. |

<p>| 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. | 16-24 | 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. |</p>
<table>
<thead>
<tr>
<th>Section</th>
<th>Timeframe</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>e. List of clear goals, measurable objectives, annual benchmarks, and an implementation plan detailing how and when students will acquire the technology skills and information literacy skills needed to succeed in the classroom and the workplace.</td>
<td>24-28</td>
<td>The plan delineates clear goals, measurable objectives, annual benchmarks, and an implementation plan detailing how and when students will acquire technology skills and information literacy skills. The plan suggests how students will acquire technology skills, but is not specific enough to determine what action needs to be taken to accomplish the goals.</td>
</tr>
<tr>
<td>f. List of goals and an implementation plan that describe how the district will address the appropriate and ethical use of information technology in the classroom so that students and teachers can distinguish lawful from unlawful uses of copyrighted works, including the following topics: the concept and purpose of both copyright and fair use; distinguishing lawful from unlawful downloading and peer-to-peer file sharing; and avoiding plagiarism</td>
<td>28-29</td>
<td>The plan describes or delineates clear goals outlining how students and teachers will learn about the concept, purpose, and significance of the ethical use of information technology including copyright, fair use, plagiarism and the implications of illegal file sharing and/or downloading. The plan suggests that students and teachers will be educated in the ethical use of the Internet, but is not specific enough to determine what actions will be taken to accomplish the goals.</td>
</tr>
<tr>
<td>g. List of goals and an implementation plan that describe how the district will address Internet safety, including how students and teachers will be trained to protect online privacy and avoid online predators.</td>
<td>29-31</td>
<td>The plan describes or delineates clear goals outlining how students and teachers will be educated about Internet safety. The plan suggests Internet safety education but is not specific enough to determine what actions will be taken to accomplish the goals of educating students and teachers about internet safety.</td>
</tr>
<tr>
<td>h. Description of or goals about the district policy or practices that ensure equitable technology access for all students.</td>
<td>31-32</td>
<td>The plan describes the policy or delineates clear goals and measurable objectives about the policy or practices that ensure equitable technology access for all students. The policy or practices clearly support accomplishing the plan's goals.</td>
</tr>
<tr>
<td>---</td>
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</tr>
<tr>
<td>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.</td>
<td>33-35</td>
<td>The plan delineates clear goals, measurable objectives, annual benchmarks, and an implementation plan for using technology to support the district's student record-keeping and assessment efforts.</td>
</tr>
<tr>
<td>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.</td>
<td>35-38</td>
<td>The plan delineates clear goals, measurable objectives, annual benchmarks, and an implementation plan for using technology to improve two-way communication between home and school.</td>
</tr>
<tr>
<td>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.</td>
<td>38-39</td>
<td>The monitoring process, roles, and responsibilities are described in sufficient detail.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>4. PROFESSIONAL DEVELOPMENT COMPONENT CRITERIA</th>
<th>Page in District Plan</th>
<th>Example of Adequately Addressed</th>
<th>Example of Not Adequately Addressed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corresponding EETT Requirement(s): 5 and 12 (Appendix D).</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. Summary of the teachers' and administrators' current technology proficiency and integration skills and needs for professional development.</td>
<td>40-41</td>
<td>The plan provides a clear summary of the teachers' and administrators' current technology proficiency and integration skills and needs for professional development. The findings are summarized in the plan by discrete skills that include Commission on Teacher Credentialing (CTC) Standard 9 and 16 proficiencies.</td>
<td>Description of current level of staff expertise is too general or relates only to a limited segment of the district's teachers and administrators in the focus areas or does not relate to the focus areas, i.e., only the fourth grade teachers when grades four to eight are the focus grade levels.</td>
</tr>
<tr>
<td>b. List of clear goals, measurable objectives, annual benchmarks, and an implementation plan for providing professional development opportunities based on your district needs assessment data (4a) and the Curriculum Component objectives (Sections 3d - 3j) of the plan.</td>
<td>42-44</td>
<td>The plan delineates clear goals, measurable objectives, annual benchmarks, and an implementation plan for providing teachers and administrators with sustained, ongoing professional development necessary to reach the Curriculum Component objectives (sections 3d - 3j) of the plan.</td>
<td>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.</td>
</tr>
<tr>
<td>c. Describe the process that will be used to monitor the Professional Development (Section 4b) goals, objectives, benchmarks, and planned implementation activities including roles and responsibilities.</td>
<td>44-45</td>
<td>The monitoring process, roles, and responsibilities are described in sufficient detail.</td>
<td>The monitoring process either is absent, or lacks detail regarding who is responsible and what is expected.</td>
</tr>
</tbody>
</table>

<p>| 5. INFRASTRUCTURE, HARDWARE, TECHNICAL SUPPORT, AND SOFTWARE COMPONENT CRITERIA | Page in District Plan | Example of Adequately Addressed | Example of Not Adequately Addressed |
| Corresponding EETT Requirement(s): 6 and 12 (Appendix D). | | | |
| a. Describe the existing hardware, Internet access, electronic learning resources, and technical support already in the district that will be used to support the Curriculum and Professional Development Components (Sections 3 &amp; 4) of the plan. | 46-51 | The plan clearly summarizes the existing technology hardware, electronic learning resources, networking and telecommunication infrastructure, and technical support to support the implementation of the Curriculum and Professional Development Components. | The inventory of equipment is so general that it is difficult to determine what must be acquired to implement the Curriculum and Professional Development Components. The summary of current technical support is missing or lacks sufficient detail. |
| b. Describe the technology hardware, electronic learning resources, networking and telecommunications infrastructure, physical plant modifications, and technical support needed by the district's teachers, students, and administrators to support the activities in the Curriculum and Professional Development components of the plan. | 51-55 | The plan provides a clear summary and list of the technology hardware, electronic learning resources, networking and telecommunications infrastructure, physical plant modifications, and technical support the district will need to support the implementation of the district's Curriculum and Professional Development components. | The plan includes a description or list of hardware, infrastructure, and other technology necessary to implement the plan, but there doesn't seem to be any real relationship between the activities in the Curriculum and Professional Development Components and the listed equipment. Future technical support needs have not been addressed or do not relate to the needs of the Curriculum and Professional Development Components. |
| c. List of clear annual benchmarks and a timeline for obtaining the hardware, infrastructure, learning resources and technical support required to support the other plan components identified in Section 5b. | 56-57 | The annual benchmarks and timeline are specific and realistic. Teachers and administrators implementing the plan can easily discern what needs to be acquired or repurposed, by whom, and when. | The annual benchmarks and timeline are either absent or so vague that it would be difficult to determine what needs to be acquired or repurposed, by whom, and when. |
| d. Describe the process that will be used to monitor Section 5b &amp; the annual benchmarks and timeline of activities including roles and responsibilities. | 58 | 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. |</p>
<table>
<thead>
<tr>
<th>6. FUNDING AND BUDGET COMPONENT CRITERIA</th>
<th>Page in District Plan</th>
<th>Example of Adequately Addressed</th>
<th>Example of Not Adequately Addressed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corresponding EETT Requirement(s): 7 &amp; 13, (Appendix D)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. List established and potential funding sources.</td>
<td>59</td>
<td>The plan clearly describes resources that are available or could be obtained to implement the plan.</td>
<td>Resources to implement the plan are not clearly identified or are so general as to be useless.</td>
</tr>
<tr>
<td>b. Estimate annual implementation costs for the term of the plan.</td>
<td>60-61</td>
<td>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.</td>
<td>Cost estimates are unrealistic, lacking, or are not sufficiently detailed to determine if the total cost of ownership is addressed.</td>
</tr>
<tr>
<td>c. Describe the district's replacement policy for obsolete equipment.</td>
<td>62</td>
<td>Plan recognizes that equipment will need to be replaced and outlines a realistic replacement plan that will support the Curriculum and Professional Development Components.</td>
<td>Replacement policy is either missing or vague. It is not clear that the replacement policy could be implemented.</td>
</tr>
<tr>
<td>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.</td>
<td>63</td>
<td>The monitoring process, roles, and responsibilities are described in sufficient detail.</td>
<td>The monitoring process either is absent, or lacks detail regarding who is responsible and what is expected.</td>
</tr>
</tbody>
</table>

7. MONITORING AND EVALUATION COMPONENT CRITERIA
Corresponding EETT Requirement(s): 11 (Appendix D).
<table>
<thead>
<tr>
<th>a. Describe the process for evaluating the plan's overall progress and impact on teaching and learning.</th>
<th>64-65</th>
<th>The plan describes the process for evaluation using the goals and benchmarks of each component as the indicators of success.</th>
<th>No provision for an evaluation is included in the plan. How success is determined is not defined. The evaluation is defined, but the process to conduct the evaluation is missing.</th>
</tr>
</thead>
<tbody>
<tr>
<td>b. Schedule for evaluating the effect of plan implementation.</td>
<td>65</td>
<td>Evaluation timeline is specific and realistic.</td>
<td>The evaluation timeline is not included or indicates an expectation of unrealistic results that does not support the continued implementation of the plan.</td>
</tr>
<tr>
<td>c. Describe the process and frequency of communicating evaluation results to tech plan stakeholders.</td>
<td>65-66</td>
<td>The plan describes the process and frequency of communicating evaluation results to tech plan stakeholders.</td>
<td>The plan does not provide a process for using the monitoring and evaluation results to improve the plan and/or disseminate the findings.</td>
</tr>
<tr>
<td>8. EFFECTIVE COLLABORATIVE STRATEGIES WITH ADULT LITERACY PROVIDERS TO MAXIMIZE THE USE OF TECHNOLOGY CRITERION</td>
<td>Page in District Plan</td>
<td>Example of Adequately Addressed</td>
<td>Example of Not Adequately Addressed</td>
</tr>
<tr>
<td>Corresponding EETT Requirement(s): 11 (Appendix D).</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>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.)</td>
<td>67</td>
<td>The plan explains how the program will be developed in collaboration with adult literacy providers. Planning included or will include consideration of collaborative strategies and other funding resources to maximize the use of technology. If no adult literacy providers are indicated, the plan describes the process used to identify adult literacy providers or potential future outreach efforts.</td>
<td>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.</td>
</tr>
<tr>
<td>9. EFFECTIVE, RESEARCHED-BASED METHODS, STRATEGIES, AND CRITERIA</td>
<td>Page in District Plan</td>
<td>Example of Adequately Addressed</td>
<td>Example of Not Adequately Addressed</td>
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</tr>
<tr>
<td>Corresponding EETT Requirement(s): 4 and 9 (Appendix D).</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. Summarize the relevant research and describe how it supports the plan's curricular and professional development goals.</td>
<td>68-70</td>
<td>The plan describes the relevant research behind the plan's design for strategies and/or methods selected.</td>
<td>The description of the research behind the plan's design for strategies and/or methods selected is unclear or missing.</td>
</tr>
<tr>
<td>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.</td>
<td>70-72</td>
<td>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).</td>
<td>There is no plan to use technology to extend or supplement the district's curriculum offerings.</td>
</tr>
</tbody>
</table>
Appendix J - Technology Plan Contact Information
(Required)

Education Technology Plan Review System (ETPRS)
Contact Information

County & District Code: 19 - 64865

School Code (Direct-funded charters only): 

LEA Name: Palos Verdes Peninsula Unified

*Salutation: Mr.

*First Name: Trent

*Last Name: Bahadursingh

*Job Title: Assistant Superintendent

*Address: 375 Via Almar

*City: Palos Verdes Estates

*Zip Code: 90274-1119

*Telephone: 310-378-9966 Ext: 701

Fax: (310) 378-0732

*E-mail: trent@pvpusd.k12.ca.us

Please provide backup contact information.

1st Backup Name: 

E-mail: 

2nd Backup Name: 

E-mail: 

* Required information in the ETPRS
Addendum

The following resources will be utilized to develop PVPUSD technology standards, scope and sequence, benchmarks and grade level projects.

Fresno County Office of Education

Recommended Digital Literacy & Technology Skills to Support the California Common Core State Standards


ISTE Standards

International Society for Technology in Education Standards

http://www.iste.org/STANDARDS

Long Beach Unified School District

Common Core State Standards K-12 Technology Skills Scope and Sequence

http://www.lbschools.net/Main_Offices/Curriculum/Areas/Technology/docs/Common_Core/CCSS%20K-12%20Technology%20Scope%20and%20Sequence.pdf