

Comprehensive

Pacific Elementary

July 1, 2015 - June 30, 2018

05/13/2016

**1. PLAN BACKGROUND CRITERIA: The plan should guide the LEA's use of education technology for the next three years.**

**1a. Provide a brief overview of the LEA, its location and demographics and/or share a link to the LEA's website.**

Pacific School's mission is to prepare children for life through experiential learning that addresses the needs of the whole child. We create a safe and secure school environment that promotes social and academic growth and develops an enthusiasm for learning, a positive self-image, and cross-cultural understanding. Pacific School's learning environment offers children, parents, and staff the unique opportunity to work together in a small, harmonious environment where individual attention and individualize instruction exists. The school plan focuses on an integrated curriculum that allows learning to take on greater meaning and connection to the world and to students' lives. It is the staff's intention to provide a school environment, which nourishes each child's emotional, physical and social development while stimulating curiosity and creativity. The staff endeavors to generate a love of learning, which will sustain children as they grow and develop.

Pacific Elementary District/School is a K-6 district/school located in the historic village of Davenport along the California coastline, nine miles north of the City of Santa Cruz. Davenport is a census-designated place (CDP); the 2010 United States census reported Davenport's population was 408. In 2010 the CEMEX plant closed. An Odwalla bottling plant also formerly provided employment and tax revenue for the community. Currently most residents commute to work outside of this small community. There is a vibrant artist community that also provides employment and a source of pride for the community. Since the closing of larger, more industrial operations, the already stretched financial base of the district has declined. Even with the recent upturn in funding for California schools, Pacific Elementary remains financially challenged. Pacific Elementary serves a significant number of inter-district transfer students, who bring stability to the enrollment, as well as the positive presence that every child adds to a school. The district's population is somewhat diverse in terms of socio-economic status, but the predominant ethnic makeup of children is White or Hispanic. Equity and respect for all people is stressed here at Pacific Elementary.

For more information, please visit our website at: <http://www.pacificesd.org/>

**1b. Describe how a variety of stakeholders from within the LEA and the community-at-large participated in the planning process.**

In our small, one-school district, collaboration on technology goals and plans has included many representatives of our school community. With an enrollment of about 120 students, we are easily able to work collaboratively on the goals and implementation for new and existing technology at Pacific Elementary.

The Superintendent/Principal, Eric Gross, has taken a leadership role in development of the plan. Heather McDougal, Technology Instructional and Support Staff; Gwyan Rhabyt, School Board President; the School Site Council; Ivan Dei Rossi, Technology Technical Support, and others have assisted in the development of this plan. An important part of any current plan is the past efforts of former Superintendents/Principals, staff, parents, and other school community members who have worked on previous plans. All new plans are built upon the foundation laid by others who planned for and implemented 20th and 21st Century technologies in the past.

**1c. Summarize the relevant research and describe how it supports the plan's curricular and professional development goals.**

The California adoption of Common Core State Standards is a major shift in the focus of instruction. This plan's major curricular and professional development outcomes are tied to the Common Core, which in turn, is based in research that has been accepted nationwide. Because we are using the Common Core standards and goals as the foundation for our plan's outcomes, the connection between research and the plan's goals is self-evident.

The emphasis on higher-order thinking skills and real-world problem solving is a key part of the Common Core. The transition to Common Core has been sparked by the positive, disruptive technological changes impacting all aspects of life and work in the 21st Century. Technology is no longer a tool or a novelty; it is an environment into which most of our students have been born.

The well-researched ISTE Standards work in tandem with the Common Core. The Common Core standards assume this technological environment. As the ISTE website notes, the use of technology is now "not for technology's sake, but as a tool for leap-frogging over lower-order thinking skills, such as rote memorization, to focus our energies on research and media literacy, creativity, collaboration, problem solving, and critical thinking."

Reference: <http://www.iste.org/standards/standards-in-action/common-core>

Another important role of technology in schools is that of ensuring equity in an increasingly technology-driven workplace and world. The National Council of the Teachers of Mathematics notes on their website, "The implementation of the Common Core State Standards for Mathematics (National Governors Association Center for Best Practices & Council of Chief State School Officers, 2010) has the potential to move forward key features of standards-based reforms in mathematics that have been promoted in the United States for more than 2 decades (e.g., National Council of Teachers of Mathematics, 1989, 2000; National Science Foundation, 1996)."

Reference: [http://www.nctm.org/Publications/Journal-for-Research-in-Mathematics-Education/2016/Vol47/Issue1/Research-Commentary\\_-\\_Educational-Technology\\_-\\_An-Equity-Challenge-to-the-Common-Core/](http://www.nctm.org/Publications/Journal-for-Research-in-Mathematics-Education/2016/Vol47/Issue1/Research-Commentary_-_Educational-Technology_-_An-Equity-Challenge-to-the-Common-Core/)

In addition, the Common Core emphasizes research, and the analysis and use of information, in every discipline. Accessing information is now almost totally located in the digital environment, making skills to seek, triage and use information now a primarily digital skill.

**2. CURRICULUM COMPONENT CRITERIA: The Plan must establish clear goals and realistic strategy for using telecommunications and information technology to improve education services.**

**2a. Describe teachers' current access to instructional technology and current use of digital tools.**

Within the confines of budgetary challenges, the Board of Trustees and school staff has endeavored to stretch resources to provide current technology.

The school enjoys WIFI connectivity throughout the campus. In addition, the school has acquired mobile devices that have been assigned to classrooms, while others are in carts and can be shared across grade levels. Peripherals vary from room to room, but all teachers have access to printers, devices that function as cameras (still and video), and projectors. Teachers are issued district laptops that are for the purposes of professional activities, instructional planning, curriculum development, and other teacher tasks.

Because the school is small -- about 120 students -- many functions that would have been made digital in larger districts are now in the beginning stages of this transition. State assessments are now conducted online with appropriate devices. Beyond those provided by the State of California, the tool for analyzing this data, given the small numbers of test results available to staff for analysis, is primarily EXCEL. Larger services, such as *Illuminate*, are not cost effective with such small numbers of students.

The office staff is transitioning to a higher level of technology use for daily tasks, as well as scanning more documents to relieve storage issues. In an effort to both be both technologically efficient and green, the district's policies are hosted by GAMUT Online, a digital policy hosting service. In this way, policies and administrative regulations are immediately accessible to all members of the school community.

**2b. Describe students' current access to instructional technology and current use of digital tools. Include a description about the LEA policy, practices, and/or replacement policy that ensures equitable technology access for all students.**

Pacific School children have access to a computer lab that accommodates large groups of children at one time. Pacific School's computer program has expanded with the addition of computers throughout the day in the 3rd-6th grade classrooms. Children learn basic skills, such as keyboarding and word processing, as a foundation to higher-level skills, such as multi-media presentations, programming, and research/presentation skills related to communicating and collaborating on classroom projects. The school enjoys WIFI connectivity throughout the campus. In addition, the school has acquired mobile devices that have been assigned to classrooms, while others are in carts and can be shared across grade levels. Peripherals vary from room to room, but all teachers have access to printers, and most have devices that function as cameras (still and video), and projectors.

Assistive technologies are available for disabled students, including but not limited to, voice recognition and digitized text.

**2c. Describe goals and an implementation plan, with annual activities, for using technology to improve teaching and learning. Describe how these goals align to the LEA's curricular goals that are supported by other plans. Describe how the LEA's budget/Local Control and Accountability Plan (LCAP) supports these goals, and whether future funding proposals or partnerships may be needed for successful implementation.**

Pacific School's community is pleased that the State adopted Common Core Standards are closely in keeping with the Mission of our district and the values of our community. The 21<sup>st</sup>-century skills of communication, collaboration, creativity, and critical thinking, often referred to as the "four Cs," are an integral part of the Common Core standards. These skills are also an essential part of living and working in the digital environment. The goals of the Common Core Standards, with special emphasis on the use of the digital environment, form the goals and objectives of this plan. All monitoring of progress toward goals is based on the Common Core Standards.

**2d. Describe goals and an implementation plan, with annual activities, for how and when students will acquire the technology skills and information literacy skills needed for college and career readiness.**

The goals for each grade level, with regard to technology skills and information literacy, will build upon the foundation laid in each prior year in each of the following areas: basic operations, word processing, spreadsheets (including tables, charts, & graphs), multimedia and presentation tools, and acceptable uses (including copyright & plagiarism). The scope and sequence will follow the plan developed by the Long Beach Unified School District, which was adapted by the Fresno County Office of Education, as seen in the tables below:

K-12 Technology Skills

Scope and Sequence

This scope and sequence document is based on the Common Core State Standards K-12 Technology Skills Scope and Sequence produced by Long Beach Unified School District, which in turn, is based on the Recommended Digital Literacy and Technology Skills from Fresno County Office of Education. The skills are aligned to the CCSS, as well as skills needed to perform on the Smarter Balanced Assessment Consortium's (SBAC) Computer Adaptive Assessments. Additional skills identified here are from the National Educational technology Standards 2007.

English Language Arts Anchor Standards		Mathematical Standards	
RL	Reading Standards for Literature	MD	Measurement & Data
RI	Reading Standards for Informational Texts	EE	Expressions & Equations
W	Writing	A	Algebra
SL	Speaking & Listening	F	Functions
L	Language	SP	Statistics & Probability
		SMP	Standards of Mathematical Practice

Digital Literacy Categories		Aligned	Skills	K	1	2	3	4	5	6
Demonstrate proficiency in use of computers, applications, and understanding of concepts underlying hardware, software, & connectivity	Basic Operations	SBAC	Turn on computer & login	I	R	M	M	M	M	M
		SBAC	Use mouse, to manipulate shapes, icons; click on urls, buttons, check boxes; scroll	I	R	M	M	M	M	M
		SBAC	Use icons, windows, menus	I	R	M	M	M	M	M
		SBAC	File management: saving documents	O	I	R	M	M	M	M
		SBAC	Explain & use appropriate online tools & resources (e.g. tutorial, assessment, browser)	O	I	R	M	M	M	M
		W6	Keyboarding: proper posture, letter, #, space, return, delete keys, typing proficiency	I	R	M	M	M	M	M
	Word Processing	W5, W6, W10	Use word processor to write, edit, print, save	I	R	M	M	M	M	M
		W5, W6, W10	Use menu/tool bar (font, spacing, margins) format, edit	O	I	R	M	M	M	M
		W5, W6, W10	Highlight, copy, paste	O	O	I	R	M	M	M
		W5, W6, W10	Copy & paste images, insert graphics	O	I	R	M	M	M	M
		L4	Proofread & edit (dictionary, spelling & grammar check, thesaurus)	O	O	I	R	M	M	M
O – Optional I = Introduce R = Reinforce M = Mastery										

Digital Literacy Categories		Aligned	Skills	K	1	2	3	4	5	6
Demonstrate proficiency in use of computers, applications, and understanding of concepts underlying hardware, software, & connectivity	Spreadsheet (tables, charts, graphs)	MD, SBAC	Use spreadsheet to organize & graph info	O	O	O	I	R	M	M
		SBAC	Explain terms (cell, column, row, values, charts, graphs)	O	O	O	I	R	M	M
		MD, SBAC	Enter & edit data, calculations, formulas	O	O	O	I	R	M	M
		MD, SBAC	Use math symbols in formulas	O	O	O	I	R	M	M
		RI 7	Use data to solve, predict, conclude	O	O	O	I	R	M	M

Multimedia & Presentation Tools	W6	Create, edit, format text on slide	O	I	R	M	M	M	M
	W6	Organize slides to convey idea	O	O	I	R	M	M	M
	W6 & SL5	Copy/paste/import graphics, change size & position	O	O	O	I	R	M	M
	W6 & SL5	Use painting & drawing tools & edit work	O	O	I	R	M	M	M
	W6, RL7, SBAC	Use online videos (play, rewind, forward)	I	R	M	M	M	M	M
O – Optional I = Introduce R = Reinforce M = Mastery									

Digital Literacy Categories	Aligned	Skills	K	1	2	3	4	5	6	
Demonstrate proficiency in use of computers, applications, and understanding of ethics & safety in using digital devices at home, in school, and in society.	Acceptable use, copyright, and plagiarism	Digital Citizenship	Comply w/ rules for responsible use	I	R	M	M	M	M	
		Digital Citizenship	Explain responsible uses & describe consequences	I	R	M	M	M	M	
		Digital Citizenship	Explain fair use guidelines for copyrighted material; credit source	O	I	R	M	M	M	
		Digital Citizenship	Explain strategies for safe use (password, anti-virus software, spam filters, popup blockers)	O	I	R	M	M	M	
		Digital Citizenship	Demonstrate safe email practices, limit public exposure, etiquette	O	O	O	I	R	M	M
		Digital Citizenship	Demonstrate strategies for dealing with cyberbullying	I	R	M	M	M	M	
		Digital Citizenship	Identify risks of online communication	O	I	R	M	M	M	
O – Optional I = Introduce R = Reinforce M = Mastery										

Digital Literacy Categories	Aligned	Skills	K	1	2	3	4	5	6
Demonstrate the ability to use technology for research, critical thinking, decision-making, communication, and collaboration, creativity, & innovation.	Research & Information Gathering	R15, R17	Use appropriate tech to locate, collect, organize content from media for a purpose, citing sources	I	R	M	M	M	M
		R15, R17	Search databases to locate information	O	O	I	R	M	M
		R15, R17	Evaluate online sources for reliability	I	R	M	M	M	M
		R17	Use content specific tech tools (probes, sensors, measuring devices, simulations to gather & analyze data	O	O	O	I	R	M
		R16, R17, R19	Use web 2.0 tools (chat rooms, blogs, wikis) to gather & share information	O	O	O	I	R	M
		RL7	Analyze purpose of media message	I	R	M	M	M	M

Communication and Collaboration	W6	Collaborate online with other students	O	O	I	R	M	M	M
	W6, W10	Communicate ideas online (presentations, drawing)	O	I	R	M	M	M	M
	W6, W10, SL2, SL5	Create projects using text, audio, video, graphics	O	O	I	R	M	M	M
	W6, W10, SL3	Use guidelines to evaluate multimedia presentations	O	O	I	R	M	M	M
	W6, W10, SL1	Use web 2.0 tools to communicate & collaborate	O	O	I	R	M	M	M
	O – Optional I = Introduce R = Reinforce M = Mastery								

**2e. Describe goals and an implementation plan, with annual activities, to address Internet safety and the appropriate and ethical use of technology, including AB 307 and Children’s Internet Protection Act (CIPA) compliance, in the classroom.**

The Board of Trustees has adopted policies related to student and staff use of technology and student privacy. These policies are currently being reviewed and updated. Policies on copyright and use of copyrighted works are also in place, and also in the process of review and potential updating. Internet Use Agreements are part of the annual student packets and yearly staff school-year start up. The internet agreements include statements regarding the appropriate use of copyrighted works. In addition, the ethics of research are taught to upper grade students, including the difference between copying content that is copyrighted and appropriately incorporating information into reports and research, with citation.

Class sizes at Pacific are smaller than the average in the State of California. This allows for close monitoring of student use of the digital environment at school. During research activities, teachers are able to teach students to carefully evaluate the provenance and likely veracity of the sources they use.

Pacific School District contracts with the County Office of Education to provide CIPA compliant filtering of digital content that is accessed by students and staff. While no filtering system can catch all questionable content, every effort is made by the COE to keep the filtering current. The Superintendent/Principal takes action to inform the COE when an accessed site should be blacklisted. Students are required to immediately inform an adult if any questionable content is accidentally accessed.

**3. PROFESSIONAL DEVELOPMENT COMPONENT CRITERIA:** The Plan must have a professional development strategy to ensure that staff understands how to use these new technologies to improve education services.

**3a. Summary of the teachers' and administrators' current technology proficiency and integration skills and needs for professional development.**

Currently, the teachers and the administrator possess a range of technological skills and proficiency levels. All instructors have a command of basic skills, and some are advanced users of some aspects of technology. But many of us would benefit from professional development in several areas and very few know what students are now expected to know and do in terms of technology at each grade level. Specifically, teachers need time to examine the technology scope and sequence document. They also need time to discuss the logistics of implementation. Lastly, they need instruction in the specific areas where they are in need of further development and need help before they can implement the plan.

**3b. Goals and an implementation plan, with annual activities, for providing professional development opportunities based on a LEA needs assessment.**

To address this need, teachers need time to examine, understand, and plan for implementation of the technology curriculum. Secondly, teachers need to become knowledgeable and comfortable teaching each area of technology that is expected at their grade level(s). Toward this end, regular staff meeting time, and a half-day of our 2 professional development days per year, will be dedicated toward bringing this curriculum to reality. Currently identified areas of need include becoming more knowledgeable about Google Drive, Khan Academy, and keyboarding programs.

**4. INFRASTRUCTURE, HARDWARE, TECHNICAL SUPPORT, SOFTWARE, AND ASSET MANAGEMENT COMPONENT CRITERIA:** The Plan must include an assessment of the telecommunication services, hardware, software, asset management, and other services that will be needed to improve education services.

**4a. Describe the existing hardware, Internet access, electronic learning resources, technical support, and asset management already in the LEA that will be used to support the Curriculum and Professional Development Components of the plan.**

Professional Development & Curricular Needs

At a staff meeting on 4/13/16, faculty and instructional aides, and office staff indicated the following priorities:

- Professional development is needed in order to become and remain highly functioning users of technology and to incorporate technology into instruction.
- a Chromebook cart is needed in the 1<sup>st</sup>/2<sup>nd</sup> class
- Projectors & document cameras are needed in the 1<sup>st</sup>/2<sup>nd</sup> and Kindergarten classes
- a keyboarding program is needed to teach the students the skills they need to access technology successfully
- Conversion to electronic forms for lunch count, attendance, & gradebooks would make our work more efficient
- a new phone system is needed to replace the current aging and low functioning system
- headsets are need for office staff to use the phone hands-free

Electronic Learning Resources

We mostly use free web-based applications, rather than purchased software. Khan Academy is used widely, mainly as a supplement to core math instruction. Short videos are often shown to illustrate concepts in science and social studies. Programs that allow students to construct worlds, creatures, and motion are used to promote creative-problem solving. Basic programming is taught in GATE in the sense of coding and in the sense of directing a robot to function.

Technical Support

Pacific Elementary contracts with a part-time Information Technology technician to handle the technology issues that we are unable to address on our own. The IT Tech keeps our system's infrastructure running, repairs hardware, and advises about software. The IT Tech also serves as an expert liaison with the IT department at the County Office of Education.

PESD Tech Hardware Inventory	
March 2016	
Mac Hardware	
Item	Quantity
MacBook Pro	6
iMac	3
MacMini	17
MacBook Air	2
PC Hardware	
Dell	7
Dell Inspiration	2
Chromebooks	
Acer Chromebook 11	27
HP Chromebook 14	7
Tablet	
iPad	6
Kindle	1
Printers	
Brother Printer	4
HP Laserjet	2
HP Office Jet	1
Kyocera	1
Sharp	1
Network	
Cisco Router	1
Cyber Power UPS	3
Netgear	1
QNAP NAS	1
Ruckus	1
Ruckus A/P	4
Miscellaneous	
LG LCD TV	1
Smart Board	1
Projector	4

Document Cameras	3
Library Scanner	1
Headphones	40
Chromebook Carts	2

**4b. Describe the technology hardware, electronic learning resources, networking and telecommunications infrastructure, physical plant modifications, technical support, and asset management needed by the LEA's teachers, students, and administrators to support the activities in the Curriculum and Professional Development components of the plan.**

Within budgetary constraints, the Board of Trustees remains committed to preparing Pacific students to function as full citizens and successful participants in a digital age.

The district has full WIFI access in all classrooms. Students have access, during school hours, to internet and digital resources as needed for research, collaboration and other instructional activities.

Digital devices and equipment are inventoried. This inventory is digital, and so is available to appropriate staff based on access permissions. Danger of theft is low. Pacific Elementary is surrounded by the homes and businesses of community members. It is lovingly watched over by all in the community.

Security of digital devices and equipment in the classroom is primarily the responsibility of the classroom teachers, and when present, aides. The small class size and level of adult supervision make the issuing and retrieving of hand held devices very successful at the classroom level with classroom personnel. Most current hand-held devices have anti-theft capabilities built in, with such features as "Find my iPad" or the ability to track who has logged in last to a Chrome Book and then disable it. Digital devices now come standard with many tracking and security options previously provided by other means.

Prior reviews and reports of Pacific's technology infrastructure indicated a need to better maintain the equipment and infrastructure. In the past two years additional technical support has been provided through an on-call, technical support person. This technical support person has reviewed existing technology, supported staff in making or has himself upgraded, repaired and/or maximized the existing equipment, retired legacy equipment, reviewed the health of the network and connections, suggested upgrades to both classroom and office systems as needed, and taught on-site staff additional skills in using and maintaining the existing systems. While a very small budget for the entire small school district is still a limiting factor, progress has been made in this area.

**5. MONITORING AND EVALUATION COMPONENT CRITERIA:** The plan must include an evaluation process that enables the school to monitor progress toward the specific goals and make mid-course corrections in response to new developments and opportunities as they arise.

**5a. Describe the process for evaluating the plan's overall progress and impact on teaching and learning.**

The Superintendent/Principal and the School Site Council will track the development and implementation of all activities. Progress toward the goals of the Common Core, with an emphasis on those that use the digital environment, such as research and collaboration, will be a guiding measure of success. The Superintendent/Principal will report progress annually to the Board of Trustees at a public meeting. Modifications will be made as needed in accordance with budget criteria.

**5b. Describe the schedule for evaluating the effect of plan implementation, including a description of the process and frequency of communicating evaluation results to tech plan stakeholders.**

The Superintendent/Principal and the School Site Council will track the development and implementation of all activities. Progress toward the goals of the Common Core, with an emphasis on those that use the digital environment, such as research and collaboration, will be a guiding measure of success. The Superintendent/Principal will report progress annually to the Board of Trustees as a public meeting. Modifications will be made as needed in accordance with budget criteria.

The Superintendent/Principal is responsible for monitoring the progress of the E-Rate program, the management of timelines, the assigning of technical support, the coordination with other plans, such as LCAP. Through these activities, the Superintendent/Principal will ensure that a continuous improvement cycle will be in effect for the duration of the plan.