Technology Plan

SCSD SAN CARLOS SCHOOL DISTRICT

San Carlos Elementary

July 1, 2012 - June 30, 2015

03/14/2012

This plan is for EETT and E-Rate.

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Background and Demographic Profile

Our Mission Statement: The San Carlos School District, in collaboration with involved, caring parents and community members who share a vision for engaging the whole child, will provide a personal, creative, challenging education that fosters life-long interest in learning and inspires all to strive for individual excellence as contributing members of a changing society.

Vision Statement: Technology is seen as a powerful learning tool to help foster high-level educational outcomes and students that are well prepared to the challenges of the 21st Century. Our focus is on content and the California standards-based curriculum. Technology skills standards are completely integrated and cross-referenced into our approach to content. Technology is to be thoroughly integrated into teaching, learning, professional development, record keeping, and business operations. The ultimate measure of our success is continued high student achievement and development of the whole child.

About the District

The San Carlos School District is a treasure of our community. San Carlos is located midway between San Francisco and San Jose. With a manageable population of 28,000, San Carlos has for years been a magnet for families relocating on and to the Peninsula. First attracted by the small town atmosphere, discerning families often make the final decision in favor of San Carlos based on our schools – small in size, high in educational value.

The San Carlos School District has a rich tradition of educational excellence that blends time-honored personal attitudes of responsibility, courtesy, perseverance, risk-taking, and cooperation with the intellectual habits of curiosity, clear communication, problem-solving, information acquisition, and logical judgments.

Education is a valued priority, both in the schools and throughout the community. Educational and community involvement programs have received recognition at the local, state, and national levels. Parents, community members and other public agencies join competent and caring teachers and staff. Together they form a learning alliance that is dedicated to ensuring that all students possess the habits, skills and attitudes necessary to succeed in high school and be offered the invitation of a post secondary education and satisfactory employment.

1. Plan Duration

July 1, 2012 - June 30, 2015

2. Stakeholders

Stakeholders		
Name	**Position**	**CDS**
Craig Baker	District Administrator	San Mateo San Carlos Elementary
Seth Rosenblatt	Parent	
Kathleen Farley	Parent	
Tom Keating	District Administrator	San Mateo San Carlos Elementary
Heather Mannion	Parent	
Cindy Donaldson	Parent	
Pam Jasso	Site Administrator	San Mateo San Carlos Elementary
Marie Crawford	Site Administrator	San Mateo San Carlos Elementary Central Middle
Lorraine Rossi	Site Administrator	San Mateo San Carlos Elementary
Alison Lansing	Classroom Teacher	San Mateo San Carlos Elementary
Julie Andersson	Parent	
Mindy Hill	Parent	
Chris Page	Classroom Teacher	San Mateo San Carlos Elementary
Kelly Baird	Parent	
Terry Sommers	Parent	
Alison Fox	Parent	
Alejandro Gutierrez	Technology Support Staff	San Mateo San Carlos Elementary
Kriselle Laran	Corporate/Non-Profit	Bullfrog Media

The process of preparing a technology plan offers an opportunity for a community to examine shared beliefs about the nature of learning and the role that technology can play in its facilitation; in many ways, the process is more important than the product. However, an approved plan then

enables implementation work to move forward efficiently, without becoming paralyzed by endless reconsideration of alternatives is key in implementing long-term successful us of technology. To that end, several initiatives were undertaken to ensure the completion of a new technology plan included a broad spectrum of viewpoints, stakeholders, and acceptable industry practices and standards. Initiatives included:

Technology Committee - The SCSD Technology Committee meets semi - monthly with agenda items directly correlated to tasks needed to complete our tech plan. This past year we have focused on two core goals: creation and adoption of a new CDE certified plan and creating a representative body to drive tech related issues not necessarily addressed by a technology plan document.

Online Collaborative Forum - A social learning network and blogging environment was created in Edmodo to facilitate collaborative work, ensure multiple view points and stakeholder had direct access in plan creation, and provide a method and means to update and revise our plane while also providing our community with access to the information and decisions made by the committee.

Email List Service - the creation of an internal list service serves to provide a means to disseminate information to the committee and keep everyone in sync and working together--apprised of major deadlines and other critical information.

The process consisted of a series of meetings to craft the vision, followed by intensive writing, followed by review and critique from members of the team. Key elements of this plan were drawn from new goals and plans, prior CDE certified technology plans, comments and feedback in committee meetings, and from comments posted on our online Edmodo site.

A subset of the members of the EETT Technology Plan Committee participated in the grooming of the draft and finalization of this document.

3. Curriculum

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

Accessible technology can be found throughout the district for both students and staff. Classrooms, staff lounges, workrooms, offices, media centers (library), and computer labs provide staff and students with multiple locations and numerous opportunities to use technology.

Each school has at least one computer lab for full class instruction and a media center (library) with multiple workstations for student and staff use.

The following services are available to all computers: Internet, printing, network sharing, and communication services.

Each school has a library with multiple computer stations to access Internet, printing, and file sharing services.

At the Elementary schools, classrooms have multiple computer stations for students and teachers. At the middle schools, classrooms have at least one computer station for students. All classrooms provide online video, DVD, cable TV, networking, printing, and telephonic services.

All machines have appropriate software installed to assist in research, reference, content creation, project-based learning, word processing, communication, and data collection and manipulation.

Students: To facilitate integration with the curriculum, the district target is a within-classroom ratio of one computer per five students. Students have access to technology during normal school hours, during supervised lunch and after school times, and as needed for time-intensive projects. A high percentage of families have computers and Internet access at home; most families have substantial expectations regarding the use of technology in the school environment.

Teachers and Administrators: All but a handful of SCSD staff has a portable computer loaned out to them for use while employed by the district. VPN and other secure remote-access technologies allow staff to access their work or update their web pages, whether from school or home. Access to technology is thus provided to staff on a 7/24/365 basis. Sites are open to staff beginning at 7AM, closing around 8PM.

All employees of the district have individual email accounts and routinely use email as a means of communication. The use of Instant Messaging is gaining popularity as is the use of web 2.0 and other collaborative technologies.

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

Frequency: Elementary students receive instruction in a computer lab once per week for 30-45 minutes. Middle School students elect to take semester-long technology classes offered throughout the school year. Additionally, 5th-8th grade teachers in all areas of content instructions reserve time in labs to use computers for projects and research. Both Middle Schools provide access to technology during lunch and after school, providing students with additional time to use technology to further educational opportunities.

Types of Use: Technology is a tool used to impact teaching and learning. Student use of technology is tied to the content standards of the San Carlos School District, State of California, and the National Educational Technology Standards for Students (NETS).

The technology standards for San Carlos are divided into six skill areas:
- Creativity and Innovation
- Communication and Collaboration
- Research and Information Fluency
- Critical Thinking, Problem Solving, and Decision Making
- Digital Citizenship
- Technology Operations and Concepts

Because content is the centerpiece and drives our use of technology, a linkage must exist between these technology skills, and how and where these skills can be used to enhance learning in each of four core content areas:
- Language Arts
- History/Social Science
- Mathematics
- Science
-

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

Technology has become increasingly important in the areas of curriculum planning, instructional practice, assessment of students, and communication methods. The following summation reflects our district curricular goals as related to technology:
- Teachers will use a variety of technology resources, equipment, and software to improve student achievement, and to support the state's goal of all students meeting proficiency or above by the year 2014.
- The district and sites will utilize technology to facilitate data collection, reporting, analysis, and data-driven decision-making.
- All students will have equal access to technology to support classroom and school learning.
- All teachers and staff will have equal access to technology to support instruction and school business.

- Ensure that all students will acquire the grade level technology standards (based on NETS-S) and learn to use technology ethically, legally and responsibly.
- The district and sites will use technology to improve communication within the district, as well as to parents and the community.
- The district will implement best practices that support the development of the 21st Century Learner

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: Goal 1: All teachers in third through eighth grades will adopt web-based Blended Learning strategies as part of their classroom teaching.

Objective 3d.1.1: Objective 1a: By 2015, 100% of grades three through eight will have implemented Blended Learning strategies as part of their teaching

Benchmarks:
- Year 1: Define, research and implement web-enabled Blended Learning solutions with a pilot group of teachers. This pilot group consisting of 25% of teachers will make use of electronic-based resources as they become available.
- Year 2: 50% of teachers will make use of Blended Learning solutions
- Year 3: 100% of teachers will make use of Blended Learning solutions

Implementation Plan				
Activity	**Timeline**	**Person(s) Responsible**	**Monitoring & Evaluation**	**Evaluation Instrument**
Define, research and implement web-enabled Blended Learning solutions to provide access to staff	Year 1 (2012-2013)	Dr. Tom Keating	Monitoring of access logs, online work completion records, and built in tracking of student progress where available	Embedded evaluation tools provided as part of online curriculum platforms
Continue to develop and deploy solutions(s) defined in year 1. Create a review committee to ensure that web-enabled solutions are being utilized effectively.	Year 2 (2013-2014)	Dr. Tom Keating	Continue previously outlined monitoring program. Meet with review committee on a quarterly basis	Embedded evaluations

| Continue to develop and deploy solutions defined from prior years. Establish a password protected collaborative site (Edmodo) that contains curricular resources such as exemplary sites, Blended learning best practices, standards information, lesson ideas, assessment tools, and other professional development resources defined in year 1. Gather feedback from review committee to ensure that Blended Learning solutions are being utilized effectively. | Year 3 (2013-2015) | Dr. Tom Keating | Continue previously outlined monitoring | Third year review of student learning progress correlated to state and national norm-referenced examination data. |

Goal 3d.2: Goal #2: All teachers will adopt for their classes and participate in an online course creation/social networking online environment.

Objective 3d.2.1: By 2015, all teachers will develop an online course environment that enables students to access learning within or without the school environment at anytime.

Benchmarks:
- Year 1: Initial pilot group consisting of 25% of teachers will utilize an online course environment with their students.
- Year 2: 50% of teachers will develop online course environments for their students.
- Year 3: 100% of teachers will develop online course environments for their students.

Implementation Plan				
Activity	**Timeline**	**Person(s) Responsible**	**Monitoring & Evaluation**	**Evaluation Instrument**

Identify online course creation environments. Provide access to course creation environments and provide Professional Development on course design. Create documentation to ensure staff know how to access online resources. Create a review committee to ensure that the online courses are being utilized effectively.	2012-2013	Dr. Tom Keating	Weekly user access records. Teachers will participate and share experiences in a professional development group established in the online course creations/social-networking environment.	Electronic portfolio of student discourse and artifacts.
Continue to provide access to course creation environments for new adopters and provide Professional Development on course design. Create documentation to ensure staff know how to access online resources.	2013-2014	Dr. Tom Keating	Meet quarterly with review committee. Continue to evaluate usage patterns to encourage teacher, and ultimately, student participation	Electronic portfolios
Continue Professional Development and online documentation. Gather feedback from review committee to ensure that course environments are being utilized effectively.	2014-2015	Dr. Keating	Weekly user access records. Teachers will participate and share experiences in a professional development group established in the online course creations/social-networking environment.	Assess longitudinal growth of student learning via student records and artifacts in electronic portfolio.

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.

All students will develop proficiency with technology skills - information, communication and software proficiency as defined on district Technology Skills Scope and Sequence and adopted performance indicators (to be created). The technology enhanced student products will serve as a basis for measuring proficiency. The District has adopted the ISTE NET standards (updated in 2007) to assist teachers in planning lessons mindful of technology and to determine student mastery of information literacy at each grade level.

Goal 3e.1: By 2015, 75% of 3-8 grade students will demonstrate proficiency in technology literacy skills as measured by district adopted performance indicators for each grade level (technology enhanced student products).

Objective 3e.1.1: By 2015, 100% of 3-8 grade students will demonstrate proficiency in technology literacy skills as measured by district adopted performance indicators for each grade level (technology enhanced student products).

Benchmarks:

- Year 1: By 2013, 25% of participating 3-8 grade students will demonstrate proficiency in technology literacy skills as measured by district adopted performance indicators for each grade level
- Year 2: By June 2014, 50% of participating 3-8 grade students will demonstrate proficiency in technology literacy skills as measured by district adopted performance indicators for each grade level
- Year 3: By 2015, 100% of 3-8 grade students will demonstrate proficiency in technology literacy skills as measured by district adopted performance indicators for each grade level

Implementation Plan				
Activity	**Timeline**	**Person(s) Responsible**	**Monitoring & Evaluation**	**Evaluation Instrument**
Administrative Cabinet will investigate and research different available scope and sequence plans for Technology skills at (K-8) or develop an original one to recommend for district adoption that are in line with the recommended performance indicators	January 2013	Principals, Director of Educational Technology	Report to Technology Committee	First iteration of student technology proficiency rubrics
Principals meet with teachers at their site to review Technology Scope and Sequence. Begin professional development activities to support implementation plans	March 2013	Principals and Director of Educational Technology		
Assess student progress toward mastery of these information, communication and software skills.	2013-2015	Principals, Director of Educational Technology		Revise and refine student proficiency rubrics

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

SCSD recognizes that Internet instruction and use presents a unique opportunity, and unique challenges and dangers. Many of the dangers are known, but as with any fast growing/changing technology; many of the challenges are evolving or are not yet visible. The District Director of Technology will attend regular information sessions at the County and Professional Conferences to stay up to date on newest legislation, information and effective programs.

Goal 3f.1: The District will adopt a comprehensive Digital Literacy and Citizenship Curriculum that specifically addresses the ethical use of information as part of our K-8 Scope and Sequence.

Implementation Plan				
Activity	**Timeline**	**Person(s) Responsible**	**Monitoring & Evaluation**	**Evaluation Instrument**
District will identify and review Digital Citizenship curricula to entertain for adoption	Fall 2012	Director of Educational Technology		
Adopt online program, identify professional development activities for teachers, and begin pilot implementation	Spring 2013	Director of Educational Technology, Principals	Web logs of classroom and student usage	Embedded evaluation instruments as part of online curricula
Implement curricula targeted for K through 5th grade students to 100% of students	Fall 2014	Director of Educational Technology and Principals	Web logs of classroom and student usage	Embedded evaluations

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)

Ensuring students understand the benefits and risks associated with the Internet is a shared responsibility for schools, parents, and the community at large. As the Internet evolves, so does the need for protecting children from harmful forces and predatory actions. To this end, the district will provide students with information and practical lessons and projects that directly address the six basic categories of cyber safety as outlined by CTAP. The district will address 1) Personal Information 2) Piracy 3) Cyber bullying 4) Social Networks, 5) Inappropriate Content, and 6) Cyber Predators as appropriate for each grade's age

Students receive instruction on basic cyber safety on an as needed basis and when appropriate for specific projects or Internet-based activities. The district will create, update, and publish a comprehensive plan, across all grade levels, to meet AB 307.

Goal 3g.1: The District will adopt a comprehensive Digital Literacy and Citizenship Curriculum that specifically addresses internet safety as part of our K-8 Scope and Sequence.

Implementation Plan				
Activity	**Timeline**	**Person(s) Responsible**	**Monitoring & Evaluation**	**Evaluation Instrument**
District will identify and review Digital Literacy and Citizenship Curricula to entertain for adoption	Fall 2012	Director of Educational Technology		
Adopt online program, identify professional development activities for teachers, and begin pilot implementation.	Spring 2013	Director of Educational Technology	Web logs of classroom and student usage	Embedded evaluation instruments as part of online curricula.

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

All students in SCSD have equal access to technology. It is district practice to meet with all sites and programs (SPED, GATE, ELL) to evaluate and ensure appropriate technology exists to meet the identified needs of a particular site or program. Students in need of adaptive technology are evaluated through the Special Services department for individual technology needs. Accommodations are made based on these evaluations.

•Meet with all programs, on an annual basis, to assess current and future needs to ensure equitable access to technology for all students in the district

•Create a District Wiki for specific learning and assessment needs

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.

Effective faculty use of the PowerSchool student information system and DataDirector data repository and visualization tool are still in their beginning sages at SCSD. A broad based professional development program for faculty and staff is essential to support student academic needs. Furthermore, a focus on developing proficiency in student data analyses and application to individualized student learning plans is critical to realizing a 21st Century Learning environment.

Goal 3i.1: Continue to expand our use of student database systems so that administrators, teachers, and where appropriate, parents and students, have access to student demographic and achievement data.

Objective 3i.1.1: Expand process, procedures, and timelines for updating data elements stored in PowerSchool (home language survey, language proficiency, learning disability information, testing accommodation information, etc.) By 2015, 100% of teaching staff will access to accurate and timely SIS data to make informed decisions to meet individual student academic needs.

Benchmarks:
- Year 1: 100% of teachers will have access to PowerSchool and DataDirector. Plan Professional Development sessions to promote proficiency in data access and analysis.
- Year 2: 50% of teachers will demonstrate proficiency in accessing and analyzing student data
- Year 3: 100% of teachers will demonstrate proficiency in accessing and analyzing student data

Implementation Plan				
Activity	**Timeline**	**Person(s) Responsible**	**Monitoring & Evaluation**	**Evaluation Instrument**
Define data elements, establish responsible party for missing data, and populate missing data elements.	2012 to 2013	Director of Educational Technology and Database Specialist	Director of Instruction and Educational Technology	

Create online documentation and professional development classes to ensure 50% of staff know how to access and retrieve data from SIS and analyze student data	2013-2014	Director of Educational Technology and Database Specialist and Technology Trainers	Director of Instruction and Educational Technology	
Evaluate teacher usage patterns and create online survey to adjust goals and objectives	2014-2015	Director of Instruction and Educational Technology	Analyze teacher usage patterns from PowerSchool logs	Create online survey to adjust goals and objectives

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.

Teachers will utilize PowerTeacher to record grades and attendance data and make data available to parent population via the PowerSchool web portal in a timely manner.

Goal 3j.1: By the end of year three, 100% of student grade and attendance data will be available via the Parent Portal in PowerSchool

Objective 3j.1.1: Test and refine solution to automate grade recording and reporting. Set up student and parent PowerTeacher accounts.

Benchmarks:

- Year 1: Pilot group of 50% of teachers will participate in grade reporting in PowerTeacher and provide functionality feedback to deployment team.
- Year 2: 75% of teachers are trained and implementing PowerTeacher.
- Year 3: 100% of teachers trained and implementing PowerTeacher. Parent portal fully functional.

Implementation Plan				
Activity	**Timeline**	**Person(s) Responsible**	**Monitoring & Evaluation**	**Evaluation Instrument**
Set up teacher accounts. Pilot student and parent accounts.	Year 1	District Technology and Database Specialist	District Director of Instruction and Educational Technology	
Train teachers in use of PowerTeacher and create clear reporting expectations.	Years 1-3	Director of Instruction and Educational Technology Site Administrators		Yearly online survey of teacher evaluation of ease of use and effectiveness of PowerTeacher

Evaluate teacher usage patterns and effectiveness in communicating student data to parent community.	Year 3	Director of Instruction and Educational Technology		PowerTeacher user logs of teacher and parent access patterns. Online survey of parent population ease of use and effectiveness as a means of communication of student data.

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.

The District Technology Committee, Administrative Council, and Curriculum Council will closely monitor curricular Component goals and activities. Specifically for Curricular goals, the Curriculum Council will assess progress using both quantitative and qualitative measures. Qualitative feedback will be gathered from stakeholders via annual surveys and classroom observation conducted annually. Quantitative results will include student achievement from standardized tests including NETS-S, and the following statistical information collected quarterly by the Director of Instruction and Educational Technology:

• Number of logins per teacher to the digital library of resources and Knowledge Base and SIS

• Frequency of account access per teacher of the electronic and online learning resources, assessment and intervention technologies, and DataDirector

• Posts from parents (e.g., email, listserv sharing), including participation rates per survey

These measures will be consolidated into a single annual report.

4. Professional Development

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

In the current school year (2011-12), faculty and administrators were surveyed using the EdTech Technology Assessment tool to ascertain general and specific user proficiency levels, detail current uses of technology as related to teaching and learning, and to gain a better understanding of how to target users for professional development.

From the EdTechProfile self-assessment (http://www.edtechprofile.org), San Carlos Elementary District has 155 credentialed teachers and 13 administrators.
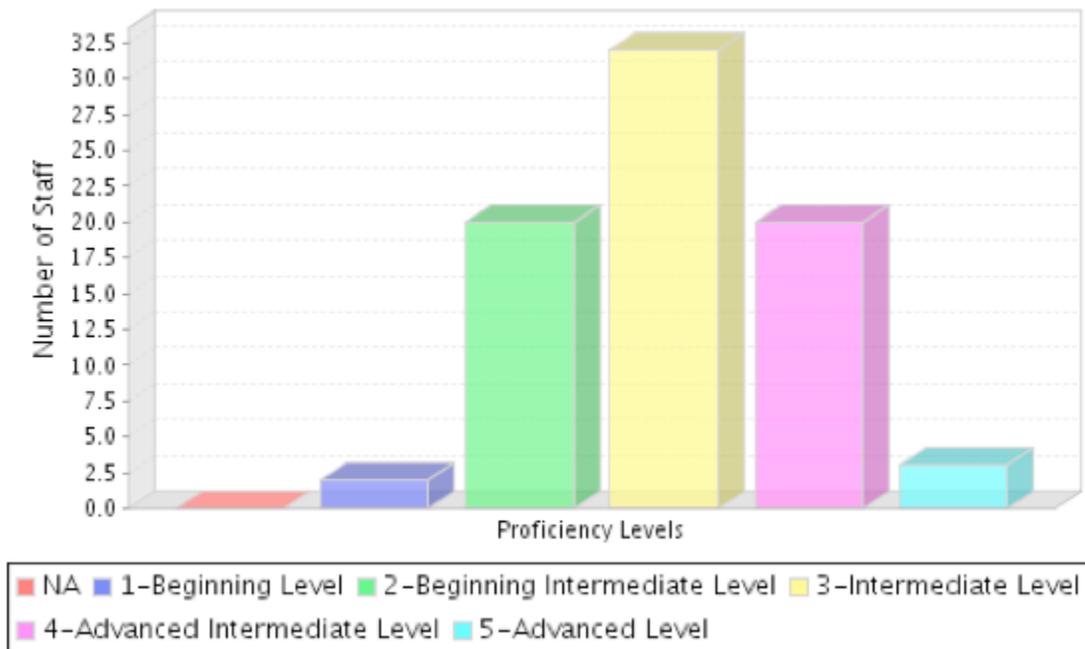
Computer Knowledge and Skills

Fig. 1. Teachers' and Administrators' Current Technology Skill Levels

• Average proficiency level in Computer Knowledge and Skills is Intermediate, with:

• 29% Beginning or Beginning Intermediate, 42% Intermediate, 23% Advanced Intermediate or Advanced

• Highest proficiency in Word Processing, email, general computer skills, Internet skills, and information literacy with more than 50% at Intermediate or higher

• Lowest proficiency in Databases, presentation software, Internet safety, spreadsheets, and ethical use of technology with more that 50% rating Intermediate or below

Using Technology in the Classroom
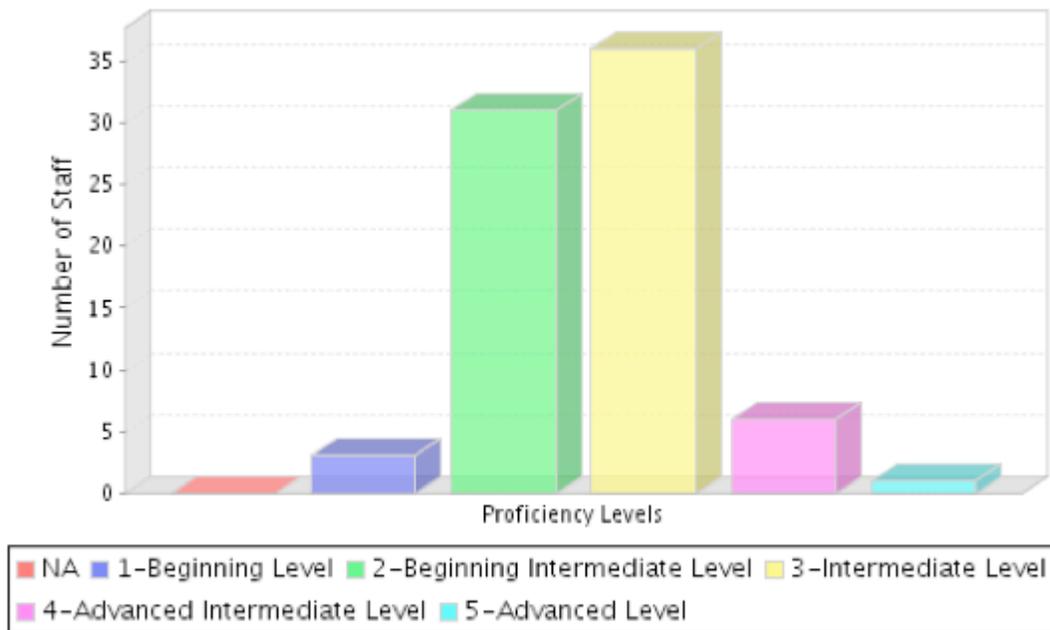
Fig. 2. Using Technology in the Classroom

• Highest proficiency level in Using Technology in the Classroom is Intermediate, with:

• 44% Beginning or Beginning Intermediate, 47% Intermediate, 9% Advanced Intermediate or Advanced

• Highest proficiency in two way communication, record keeping and assessment, integrating technology and multimedia when they teach

• Lowest proficiency in encouraging student collaboration and peer review, and making use of a classroom webpage.

Using Technology to Support Student Learning

Fig. 3. Using Technology to Support Student Learning

• Average proficiency level in Using Technology to Support Student Learning (CCTC Program 16) is Intermediate with:

• 30% Beginning or Beginning Intermediate, 42% Intermediate, 28% Advanced Intermediate or Advanced

• Highest proficiency in teachers integrating technology tools into student learning at 54% reporting regularly or daily.
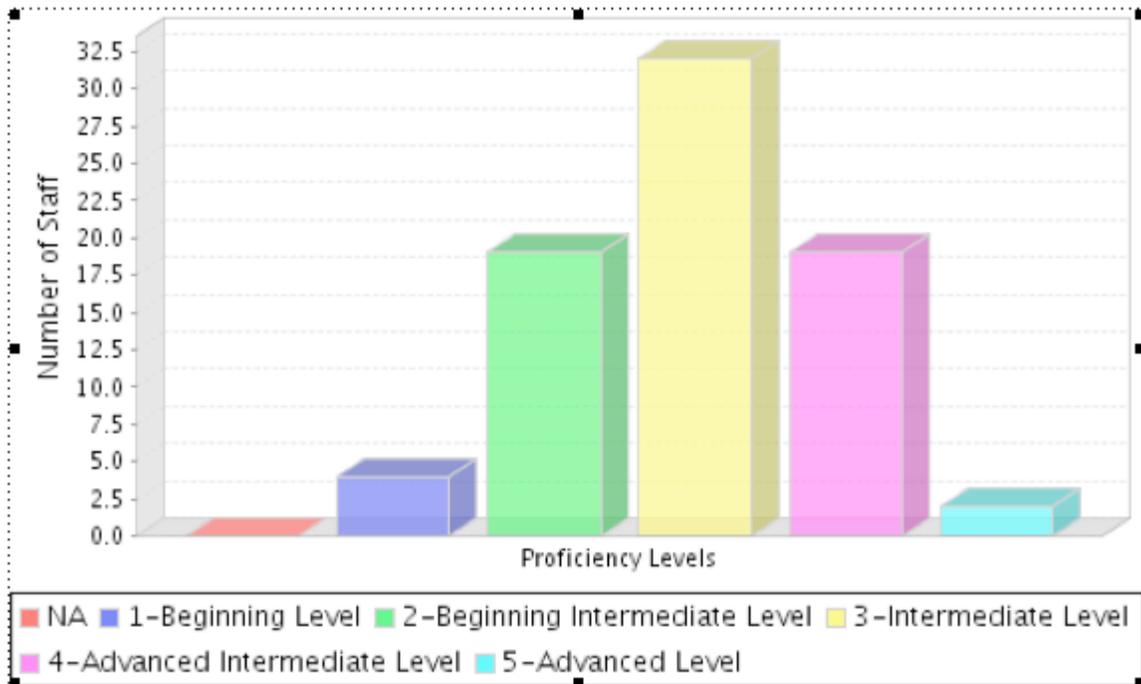
• Lowest proficiency in frequency that students collaborate or give each other feedback with 45% of teachers reporting never.

It is clear from the data reported above that SCSD teachers have made great strides since the last Tech Plan in the areas of general knowledge and skills with computer and integrating technology tools as part of their classroom practice on a regular basis. Areas of potential growth for teachers include providing students with the opportunity to collaborate while using technology and developing on online presence such as an online course environment with blended learning opportunities. These are primary goals operated in this iteration of SCSD technology planning.

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.

The district has identified three curricular areas in this plan that require professional development; Blended Learning approaches to teaching and learning, participation in and design of web-based Course environments with social networking capabilities, and inclusion of a Digital Literacy and Citizenship as part of our Scope and Sequence for k- 8th grades. Furthermore, there is the ongoing professional development needs addressing student information systems, data tracking, and more general curricular initiatives and standards.

Goal 4b.1: Develop and implement a Teacher Professional Development schedule for the next three academic school years that encompasses the District's strategic technology goals.

Objective 4b.1.1: Schedule a minimum of three face-to-face technology implementation trainings per school site per school year and provide a minimum of three web/webinar-based trainings per teacher per year.

Benchmarks:
- Year 1: Build a Teacher Professional Development Master Schedule to address Tech Plan implementation needs over the next three years
- Year 2: Deliver and orchestrate face-to-face and web-based professional development for 100% of the faculty in support of Tech Plan
- Year 3: Deliver and orchestrate face-to-face and web-based professional development for 100% of the faculty in support of Tech Plan

Implementation Plan				
Activity	**Timeline**	**Person(s) Responsible**	**Monitoring & Evaluation**	**Evaluation Instrument**
Create a calendar and plan for three face-to-face and three web-based Professional Development sessions per teacher, per year.	Early Fall 2012	Academic Council members and Director of Educational Technology		Calendar posted to District and School site Websites
Deliver professional development sessions to address Blended Learning, online course development, and Digital Citizenship both online and face-to-face	Fall 2012 to Spring 2015	Director of Educational Technology	Teachers will be surveyed as to the effectiveness of the PD sessions and solicited for suggestions and improvements	SurveyMonkey online survey

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 Technology Committee, Administrative Council, and Curriculum Council will closely monitor Professional Development goals and activities. Specifically for Professional Development goals, the Curriculum Council will assess progress via:
•annual survey results (e.g., the EdTechProfile self-assessment), including participation rate
•on-site training session sign-ins and session evaluation forms
•quarterly recap memos from site principals and vice principals to the Director of Educational Technology
These measures will be consolidated into a single annual report.

5. Infrastructure, Hardware, Technical Support, and Software

> 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:

Hardware: The district provides a workstation or portable computer to every employee in the district (except employees in Custodial positions and some Para-educators). The district uses primarily Macintosh-based computer and a handful of Windows- based computers, with a vast majority of machines running a modern operating system of Macintosh OS 10.6 or Windows XP/Windows7.

Academic computing preferences favor Macintosh computers, while certain essential software (e.g., the County Financial system) requires Windows, and other software (e.g., PowerSchool) is better supported on Windows. File servers provide "first class citizen" status to both platforms.

Macintosh
Intel Core 2 Duo processors Macintosh OS X 10.6 1 – 2 GB RAM 60 - 750 GB HD CD/CDR/DVD/DVDR 15" – 21" display Desktop/ 13" – 15" Laptop 10/100 or 10/100/1000 Ethernet G or better wireless

Windows
Dell or Lenovo, Core 2 Duo or Quad core Windows XP Professional or Windows 7 1 -6 GB RAM 120 – 500 GB HD CD/CDR/DVD/DVDR 17" - 21" display 10/100 or 10/100/1000 Ethernet G or better wireless

• Library Media Centers – All libraries in the district have from 4 – 15 student machines used to lookup library media in addition to providing Internet, word processing, research, and media creation capabilities. Each library has one dedicated Librarian Workstation. Existing computers meet or exceed the following specifications:

Librarian Workstation
Macintosh Intel-based iMac Mac OS 10.5 1 – 2 GB RAM 120 GB hard disk 17" flat-panel display bar-code scanner 10/100/1000 Ethernet CD/DVD (R/W COMBO) Alexandria Database

Student Workstation
PowerPC G4, G4 or Intel Dual Core processors Mac OS 10.4 & 10.5 256 RAM 10 GB hard drive 10/100 Ethernet CD/DVD(R/W) COMBO Alexandria Lookup Software

• Some schools have augmented their LMCs by purchasing additional computers with similar configurations. This enables the facility to double as a traditional computer laboratory, providing a location where technology-specific skills can be taught with a 1:1 ratio during the instruction. The middle schools operate additional computer labs, addressing a variety of needs including scheduling constraints and the desire to offer a multi-platform experience for students.

• Network Servers - Internet services such as DNS, and Email are currently hosted on Apple based OS-X Servers. Existing configurations are at least as follows, depending on the unit:

Network Server Configuration
Macintosh Intel-based X-Serve Mac OS 10.5 & 10.6 Unlimited Server 2 – 6 GB RAM 80 GB – 2 TB primary hard disk 500 GB – 2 TB dual mirrored RAID data disk 10/100/1000 dual Ethernet

• File Servers - each school operates an OS X-based file server providing DNS as well as accounts for all staff and middle school students; configurations are:

File Server Configuration
Macintosh Intel-based X-Serve Mac OS 10.5 & 10.6 Unlimited Server 2 – 16 GB RAM 1 TB primary hard disk 2 TB dual mirrored RAID data disk 10/100/1000 dual Ethernet

• All computers are connected to the Internet via a broadband (non dial-up) connection.

Other Peripherals - Teachers are equipped with several hardware based technology tools to enable the learning process for students and minimize the administrative overhead often associated with a teacher's use of technology. Portable computers, printers, projectors, document readers, overheads, TVs, DVD/VCR, digital cameras, are either loaned out on a permanent basis or available for checkout on an as needed basis. All teachers have access to networked laser printers (either in class or in a shared common area) or in-class color Inkjets. Due in large part to

an approved bond measure, all classrooms have multiple Ethernet drops, cable access, phones, and clocks.

We are currently exploring the mobile computing concept including the purchase iPads, Chromebooks, and other mobile devices on a pilot basis. This project will go before the school board upon completion of the research phase. Pilot programs are in place at the middle schools and elementary schools. Interest in student mobile computing is extremely high on the priority list and teachers throughout the district have expressed a desire for more technology.

Each Library Media Center also owns an Ethernet-ready Hewlett-Packard DeskJet printer and/or laser printer.

Technology includes much more than computers and printers. Examples of other technologies important to SCSD schools include:

• Robotics kits

• Multimedia devices including cameras, scanners, USB Microscopes, midi controllers, and synthesizers

• Assistive Technologies (Screen magnification, "easy access" control keys)

• Office Equipment (not shown in technology budget)

• Telephones

• Fax machines

• Audio/Video Equipment

• Projection systems

• Televisions

• DVDs and VCRs

• Document cameras

• LCD projectors

• Smartboards

• Video streaming

• Calculators

• Science Kits such as for basic electronics.

Existing Internet Access:

Traditional Telephony

Currently, all classrooms have modern, working telephone service, district-wide, including voicemail boxes for every staff member. AT&T provides shared voice and data line services including usage charges, for the entire district under the CALNET contract. Service includes phone and services for 260 classrooms.

Cell Phones

Currently, administrators use either a traditional cell phone with a PDA or a combined Smartphone. AT&T provides Service.

Internet Access

Internet access is available to all schools within the district. Access is provided through traditional wired Ethernet drops and campus-wide wireless networks. The district provides one managed network to each school. All schools sites within the district have Internet access covering all parts of the campus. There are from 8-12 drops per classroom. Non-classrooms have multiple Ethernet drops to accommodate computers, printers, and other network-based devices. A typical school campus has one MDF, with multiple IDFs serving a specific wing or section of a campus. Services are centralized for network, phone, and alarm. Internet Services include:

• Hosted Web Site for Each School

• Email (Communication and Collaboration)

• Secure Remote Access to Email and File Service

• Public Domain Name Service [DNS]

• Listservs

Local Area Network

SCSD operates a 10/100 Ethernet LAN at each location, with Fiber interconnections between schools. Uplink to the ISP (San Mateo County Office of Education) is dual, bonded T1 (3.0 Mbs service). Intermediate Distribution Frames [IDFs] at each school are linked by 62.5-micron multimode fiber. In some locations, the fiber backbone is operated at gigabit speeds; but in most locations, the connections remain at 100 Mbs. Services including dynamic host configuration protocol [DHCP], local file services for both Mac and Windows clients, email, private domain name service [DNS], and proxy service including blocking capability for inappropriate content.

All classrooms and offices are wired for Ethernet, with multiple drops per room and additional drops in labs and library media centers. We have deployed updated wireless networks via Apple

AirPort Extremes at all school sites. We plan to upgrade every site with a modern, robust, campus-wide coverage wireless network in the next three years.

Wide Area Network

SCSD operates an inter-school WAN based on full 1.5 Mbs Fiber point-to-point circuits from each remote school to the district office. Internet access is via Fiber uplink through San Mateo County Office of Education at 50 MBS. There is a Cisco router capable of additional expansion. School sites operate Cisco routers, some with outboard CSU/DSUs; the newer units have integral CSU/DSU modules.

The Unix network servers currently serve as Internet gateways, including caching and blocking proxy services, as well as dynamic IP addressing [DHCP], firewall based on network address translation [NAT] and IP filtering, DNS, Email, and Web service [HTTP] including secure socket layer [SSL] for confidential data.

The Mac file servers, described earlier, provide all file sharing and Web services for both Windows and Macintosh clients, and also host Alexandria. Since web service also runs on these servers, they can also provide an easy-to-use repository for teacher web pages. A single District-wide firewall, running on a Watchguard X1000 Firebox, is in place, with some schools behind it and others still behind their existing Dell-based UNIX firewalls.

SCCLC's path to the Internet has a "bypass" of the SCSD firewall and they have their own firewall. They do not use the Watchguard but run an OpenBSD firewall which implements blocking of web sites noted as inappropriate by the SCCLC community. (The Watchguard uses filtering for all other schools, not just blocking.)

Existing Electronic Learning Resources:

 Electronic Learning Resources / Software: To provide a predictable computing environment for teaching and learning, leverage purchasing power, and reduce support costs, baseline software configurations have been standardized as much as possible. At the same time, standardization is balanced with respect for the needs of teachers to evaluate with curricular applications and tackle innovative projects with their students. Therefore, SCSD uses a layered approach. Every new or upgraded workstation is equipped with a baseline software configuration (operating system, virus protection, desktop security, web browsers, email software, key productivity applications and support tools) appropriate to its hardware capability and intended use. Additional software is layered on top of the baseline according to need and requirements. Recommended baseline software is as follows:

Macintosh
Mac OS X v10.4 ClamXav Virus software Safari Firefox Mail MS Office Productivity suite (upper grades and staff) iWork iLife Apple Remote Desktop Client Acrobat Reader Stuffit, and other helper applications

Windows
Windows XP Pro McAfee Anti-Virus Software Internet Explorer Firefox Outlook MS Office Productivity Suite Ghost Client (Network-based desktop Administration software) SSH2 client Acrobat Reader Unzip, and other helper applications software

On top of baseline configurations are layered additional applications and titles suitable to the usage scenario. For example:

• Administrators needing access to the County Financial Server require AccuTerm

• School secretaries and some administrators require PowerSchool

• Lower grades require KidPix and a variety of early-reading-oriented titles

• Upper grades require Mavis Beacon Teachers Typing, Inspiration 8, Google Earth, Google SketchUp, and iLife for multimedia authoring

• Sometimes special projects and seminars require additional software, such as Inspiration, LCSI MicroWorlds, Lego Mindstorms, and Scratch

• LMC iMac workstations have the Alexandria client software and one Apple Learning Series K-6 bundle (including QuickTime Pro, Inspiration, and several other tools).

In the case of the Media Center/Library workstations, additional software including the Alexandria client software and several other tools have been included on all units.

Teachers at similar grade levels (e.g., K-1, 2-4, 6-8) within a school collaborate to agree on standard software additions appropriate to those grades. This facilitates sharing of stations, classroom integration with what is found on lab computers, volume purchasing, a more consistent computing environment, easier staff development, and less costly technical support.

Software configurations for mobile computers are similar to desktop units, except that tools are provided to facilitate roving use in multiple locations (wired, wireless, etc.).

All schools use PowerSchool for attendance tracking, grades, and similar functions. We use the Alexandria software system to help students and teachers with reference and lookup, and to help librarians manage the collections at our libraries.

Data Management

Grading (Report Card Maker, SchoolLoop, PowerSchool), Student Assessment (DataDirector, PowerSchool), School-to-Home Communications (SchoolLoop, email, electronic newsletters) Student Information System (PowerSchool)

Media Management

iTunes, iPhoto

Electronic Learning Resources

Language Arts (Accelerated Reader, Microsoft Word, KidPix, Kidspiration, Inspiration)

Math (ALEKS, Accelerated Math, KeySkills, Microsoft Excel, Khan Academy)

Science (KeySkills, United Streaming)

KeyBoarding (Type To Learn, Mavis Microsoft Word, iWorks)

Reference (WorldBook Encyclopedia, Apple Dictionary, Google Maps, Google Earth)

Content Creation

iMovie, iDVD, GarageBand, iWeb, PowerPoint, Microsoft Word, iWorks, KidPix, Kidspiration, Inspiration

Existing Technical Support:

Our comprehensive Technology Support Model [1] provides a framework of guidelines, procedures, and policies to best accomplish the goals of providing SCSD with an organic, sustainable, and cost-efficient support structure.

A formal, online Technical Support Portal is in use district-wide. Our portal provides case management tracking, knowledge base information, template repository, and self-service support features.

A small team of onsite part-time staff and volunteers provide for first-tier support at most sites, with the work order system being used primarily for second-tier escalation and network support at those sites.

Laptop computers are routinely ordered with 3-year extended warranty service to reduce hardware related support tasks.

Service contracts have been put in place for essential equipment and services such as routers, servers, SIS, data assessment, and networking.

Currently, district-wide technical support is provided by a District Director of Instruction and Educational Technology and two Fulltime Technology Specialists and additional support is under contract to The Miller Institute; whose services are limited to specific functions such as network maintenance, server installs, and mission-critical desktop support.

Schools typically have a part-time site Technology Associate tasked with providing basic support duties. As with most school districts, we maintain funding and resources below "best practice" recommendations.

Currently, we have:

• Technical support FTE's per 1000 students is 1.67

• Curriculum support FTE's per 1000 students is 1.00

• Average hardware fix time is less than two days.

• A four to six year replacement cycle dependent on the designated use and class of a machine. In the Technology Support Model, tables show the anticipated life of the current equipment.

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: Our Education Foundation is supporting the purchase of iPads and Chromebooks for student usage. We will need to outfit the iPads with synching/charging carts.

Electronic Learning Resources Needed: In our move to a Blended Learning model of curriculum delivery, we need to continue to identify internet/cloud-based resources for learning. As we roll out tablet computing (iPads) we need to purchase and manage a range of Educational Apps. We need to provide professional training for our instructors as they incorporate Google Apps and Edmodo in their day-to-day teaching. Google and Edmodo have graciously agreed to provide training at no cost to the district.

Networking and Telecommunications Infrastructure Needed: A major goal for our District is move from a lab to mobile computing model. To this end we need to invest in our wireless

infrastructure by upgrading our Access Points, Network Switches, Network Servers, USB Battery Backup system. We also plan to upgrade our phone to a Voice-Over-Internet Protocol.

Physical Plant Modifications Needed: The school district is pursuing a Bond Measure for November 2012 that will call for extensive physical plant modifications at our existing schools and the potential for building two new schools.

Technical Support Needed: Funds permitting, we hope to add two more tech specialists so that every elementary school has a corresponding Tech Specialist.

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.

SCSD is working to identify funding sources to upgrade wireless infrastructure at the two middle schools over the course of the next three years. This will involve evaluating, choosing, and installing network servers, switches, and access points. The Tech Committee will be consulted and perform a final evaluation to determine how to expand program to elementary school sites.

Year 1 Benchmark: Begin upgrade of Middle School Network and Wireless Infrastructure		
Recommended Actions/Activities	**Timeline**	**Person(s) Responsible**
Solicit presentations and quotes from vendors	Summer 2012	Director of Educational Technology

Year 2 Benchmark: Purchase and install Switches, Servers, and Access Points at Middle Schools		
Recommended Actions/Activities	**Timeline**	**Person(s) Responsible**
Complete install and testing of network performance	Summer 2013	Technology Specialist

Year 3 Benchmark: Evaluate performance of network upgrade, make recommendations and modification, consider expansion of program to elementary school sites		
Recommended Actions/Activities	**Timeline**	**Person(s) Responsible**
Convene Tech Committee	Fall 2014	Director of Educational Technology

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 District Technology Committee, Administrative Council, and Curriculum Council will closely monitor Hardware, Infrastructure, Learning Resources, and Technical Support goals and activities. Specifically, the Technology Committee will review the district tech plan biannually to ensure forward progress of goals, reporting to the Board where progress is exceeding or falling short of the planned objectives, with recommendations for remediation. The tech plan will be posted on the staff web page for teacher reference, as well as a link to post comments and suggestions about the plan. The Administrative Council will gather feedback from stakeholders via formal survey to assess the effectiveness of technical support goals and initiatives, particularly as contrasted to the Average Hardware Fix Time, Technical Support Staffing, and Curriculum Support Staffing statistics. The Technology Administrator will work collaboratively with stakeholders and monitor support ticket levels monthly. The Tech Department will meet weekly to discuss educational technology trends, district technology issues, and to plan technology service and deployment.

These measures will be consolidated into a single annual report, along with the report on progress for Curricular and Professional Development goals.

6a.   List of established and potential funding sources.

Established Funding Sources:

As a district serving a relatively affluent community, revenue for the technology budget is primarily dependent upon general funds, grants and donations, an, Erate discounts.

Revenue

Revenue	2012-2013	2013-2014	2014-2015
General Funds	$390,000	$390,000	$390,000
Grants and Donations	$350,000	$350,000	$350,000
E-Rate Discount, SMCOE Internet Access	$4,000	$4,000	$4,000
E-Rate Discount, POTS+DATA	$52,000	$52,000	$52,000
Total Revenue	**$796,000**	**$796,000**	**$796,000**

Potential Funding Sources: The District is actively pursuing alternative funding sources through our Scan Carlos Educational Foundation and outside foundations. We are presently in conversations with:

- Oracle Foundation

- Gates Foundation

- Google Education

The District Foundation has raised on the order of $350,00 annually in support of Technology.

6b. Estimate annual implementation costs for the term of the plan.

Item Description	Year 1	Year 2	Year 3	Funding Source Including E-Rate
6000-6999 Equipment				
Voice Over IP phone system upgrade	$0	$25,000	$0	General Fund
Upgrade School Servers	$6,000	$6,000	$6,000	General Fund
Network Switches	$50,000	$20,000	$20,000	General Fund
Wireless Access Points	$20,000	$10,000	$10,000	General Fund
USB Backup Battery System	$5,000	$5,000	$5,000	General Fund
iPads for the classroom	$50,000	$50,000	$50,000	Education Foundation (SCEF)
Chromebooks	$20,000	$20,000	$20,000	Education Foundation (SCEF)
Replacement Laptops for teachers	$10,000	$10,000	$10,000	General Fund
Laptop Carts	$9,000	$9,000	$9,000	Education Foundation (SCEF)
Totals:	$170,000	$155,000	$130,000	

6c. Describe the district's replacement policy for obsolete equipment.

Defining and funding a cycle for replacing technology is a key step in managing any large deployment of computers. A replacement cycle helps to set user expectations as well as provide for a roadmap for funding purposes and managing the total hours associated with the installation of any large-scale rollout.

Historically, SCSD has not adhered to any cycle, instead opting to replace machines on an as-needed basis. This approach, while cost effective in the near term, does not properly address the realistic life expectancy of any given machine. Furthermore, long-term funding plans are difficult to implement without an upgrade plan, as they do not allow for projecting anticipated cost over multiple years. SCSD has adopted best IT practices, including the adoption and funding of a multi-year replacement cycle. Ideally, SCSD can maintain a four to six-year refresh cycle dependent on the designated use and class of a machine.

6d. Describe the process that will be used to monitor Ed Tech funding, implementation costs and new funding opportunities and to adjust budgets as necessary.

The CBO, District Technology Administrator, and Administrative Council will closely monitor funding and Budget goals and activities. Monthly review of planned versus actual budget results will be made by the CBO. The Technology Administrator will work collaboratively with the CBO and the Technology Committee to ensure projects and plans are funded and updated as needed. When technology budget needs exceed available funds for technology, trade offs must be made and certain nice-to-have, even some required, technology expenditures will be postponed. To that end, the Technology Administrator will maintain a prioritized "cut" list of items to be postponed (if necessary) that is updated biannually.

7. Monitoring and Evaluation

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

Using our current EdTech profile as a baseline, students and staff will submit to an online survey each school year to assess current skills.

Data collected from surveys, our support portal, assessment systems and other electronic systems will be used to guide plan modifications, assist in monitoring our progress, of show effective impact of this plan.

The Technology Committee (participants and functional responsibilities are described in section 2. Stakeholders) will evaluate the effectiveness of the plan on an ongoing basis throughout the year at monthly meetings.

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

Beginning in February of each school year, stakeholders will engage an evaluation cycle to determine the effectiveness of this plan through the collection and analysis of data (such as Ed Tech survey, Surveymonkey, DataDirector, ELRs, etc.) and make plan adjustments upon review of data.

An evaluation cycle will be established as provided in the following table:

Cycle Months	2012-2013	2013-2014	2014-2015
February - March	Collect Data	Collect Data	Collect Data
March - April	Evaluate Data and recommend changes	Evaluate Data and recommend changes	Evaluate Data and recommend changes
June - August	Modify plan based on steps 1 and 2 of cycle	Modify plan based on steps 1 and 2 of cycle	Modify plan based on steps 1 and 2 of cycle

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

Technology plan stakeholders will receive regular updates on a monthly basis through Technology Committee meetings (second Wednesday of each month), through the Technology Committee email distribution list, online technology wiki, the district web site, site-based technology meetings, and other ad hoc meetings. Fewer meetings and reduced communications are expected during the summer months when a majority the school community is away on vacation. In most years the board receives two presentations outlining current year technology goals as well as an end-of-year summary report.

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

The district is currently working with local senior housing homes to provide adult literacy opportunities. The technology committee will create a subcommittee to advance our progress in identifying, establishing, and expanding our current adult literacy program and community relationships. School facilities (including computer labs) are made available to the community at large and we have hosted many groups over the years that make use of our technology and services. Further inroads need to be made identifying established providers beyond our limited contacts. Fortunately, SCSD resides in an affluent, technology-rich community and our initial findings show our adult population to be well-educated and using technology on a regular basis.

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.

Goals, objectives, and implementation tasks of this plan were investigated by a variety of stakeholders using numerous online resources; books, published studies, papers, articles, web sites, wikis, and blogs were searched. A variety of viewpoints are reflected in this plan, as are many widely accepted industry standards and best practices.

Before the research phase began, stakeholders and committee members met to read over the Technology Planning Guide to gain a greater understanding of each of the EETT sections and the questions contained within. In a round table format, each item was discussed to ensure an understanding of the requirements for each section. At that time, sections of the plan were assigned to various members to begin the research and writing phases. Data was collected and analyzed to help drive particular goals of the plan. Drafts were posted online for comment. The plan itself is an edited summation of the research used in the process of creating the document.

This plan's curricular and professional development goals reflect the following beliefs about learning:

•   Teacher use of a variety of technology resources, equipment, and software improves student achievement, and supports the state's goal of all students meeting proficiency or above by the year 2014.

•   The district's use of technology facilitates data collection, reporting, analysis, and data-driven decision-making.

•   All students having equal access to technology supports classroom and school learning.

•   All teachers and staff having equal access to technology supports instruction and school business.

•   Ensuring that all students acquire the grade level technology standards (based on NETS-S) helps them to use technology ethically, legally and responsibly.

•   The district's use of technology improves communication within the district, as well as to parents and the community.

These beliefs are supported by the following published research:

21st Century Skills

"Every child in America needs 21st century knowledge and skills to succeed as effective citizens, workers and leaders in the 21st century. There is a profound gap between the knowledge and skills most students learn in school and the knowledge and skills they need in typical 21st century communities and workplaces. To successfully face rigorous higher education coursework, career challenges and a globally competitive workforce, U.S. schools must align classroom environments with real world environments by infusing 21st century skills. This skills set includes:

• Information and communication skills (information and media literacy skills; communication skills)

• Thinking and problem-solving (critical thinking and systems thinking; problem identification, formulation and solution; creativity and intellectual curiosity)

• Interpersonal and self-direction skills (interpersonal and collaborative skills; self-direction; accountability and adaptability; social responsibility)

• Global awareness

• Financial, economic and business literacy, and developing entrepreneurial skills to enhance workplace productivity and career options

• Civic literacy"

- Collins, A. and R. Halverson. (2009) Teachers College Press

Rethinking Education in the Age of Technology: The Digital Revolution and Schooling in America (Technology, Education--Connections (Tec)) (Technology, Education-Connections, the Tec Series)

- Partnership for 21st Century Skills. (2008) Web Document

21st Century Skills, Education & Competitiveness

http://www.p21.org/storage/documents/21st_century_skills_education_and_competitiveness_guide.pdf

- Trilling, B. and C. Fadel. (2009) Jossey-Bass.

21st Century Skills: Learning for Life in Our Times

Data-Driven Decision Making

"Data-driven decision making can assist schools in gathering data to help them determine if they are meeting their purpose and goals. Defined by the National Education Association, data-driven decision-making is "using data that are gathered on a regular basis (and additional information, as needed) to inform planning, decision making, and reporting activities."

Technology Alliance

- Technology Alliance (2005) Web Document.

Data-driven decision making in K-12 schools

http://www.technology-alliance.com/pubspols/dddm/dddm.html

Professional Development

"Getting teacher buy in is important when technology is involved, especially for those who are not convinced technology is worth the time and effort. The first step of any sound professional development program is to develop a belief about technology professional development that includes the idea that the curriculum drives the use of technology, not vice-versa, and that empowered teachers will find appropriate ways to include technology with their ongoing instruction rather than view it as an activity unconnected to the district's content standards. Research and best teaching practices consistently show that without effective staff development and continuous support, technology integration will never be satisfactorily achieved (Bailey and Powell, 1998)."

- Barnett, Harvey. (2003) ERIC Clearinghouse on Information and Technology Web Document.

Technology Professional Development: Successful Strategies for Teacher Change

http://www.vtaide.com/png/ERIC/Techno-Development.htm

The following additional publications were also consulted as part of the support for our curriculum and professional development goals:

Educational Technology Planning guide was employed to ensure each section of the EETT plan meets examples specified as adequately addressing section criterion

EETT Program for Students: Research-Based Recommendations are reflected throughout this document with varying degrees of implementation and adoption

California Technology Assistance Program documents can be found attached to this plan. CTAP provided strategies for successful submission and tips for creating a process and framework to create a new plan

California Learning Resource Network information, guides, and ELR recommendation can be found throughout this plan

International Society for Technology in Education provides the bases for our student standards

San Mateo Count Office of Education resources (such as SIS evaluations, SMEDCenter access) are incorporated into the overall research of this plan

Miller Institute for Learning with Technology was instrumental in providing a high-level resource of technical information; plan creation strategies, and meeting specific compliance issues

Technology Solution For Schools provided sample lessons and project ideas used for various implantation items in this plan

Partnership for 21st Century Skills is an ongoing resource for the latest trends and practices to ensure students gain mastery of skill sets to prepare them for future successes using technology

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.

An initial set of goals, benchmarks, and objectives were created to extend rigorous academic courses and curricula, including blended learning, to the district's curriculum, but budget constraints may play a factor in realizing this goal for all students. We plan to implement a variety of online learning environments in classrooms and available outside of school beginning in the 2012- 2013 academic year. Examples include:

- Khan Academy

- Edmodo

- Everyday Math online manipulative

- CK-12 Open Source Flex books

- Educreations

- BrainPop

- Brainology

- Multitude of Educational Apps available from Apple App Store

If funding permits, we hope to implement and expand mobile computing in K-8 classrooms for curricular delivery to include iPads and Chromebooks. As discussed earlier, this is contingent on upgrading our wireless network infrastructure.

Appendix C - Criteria for EETT Technology Plans
(Completed Appendix C is REQUIRED in a technology plan)

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.

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

3. CURRICULUM COMPONENT CRITERIA Corresponding EETT Requirement(s): 1, 2, 3, 8, 10, and 12 (Appendix D).	Page in District Plan	Example of Adequately Addressed	Example of Not Adequately Addressed
a. Description of teachers' and students' current access to technology tools both during the school day and outside of school hours.		The plan describes the technology access available in the classrooms, library/media centers, or labs for all students and teachers.	The plan explains technology access in terms of a student-to-computer ratio, but does not explain where access is available, who has access, and when various students and teachers can use the technology.
b. Description of the district's current use of hardware and software to support teaching and learning.		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.		The plan summarizes the district's curricular goals that are supported by the plan and referenced in district document(s).	The plan does not summarize district curricular goals.
d. List of clear goals, measurable objectives, annual benchmarks, and an implementation plan for using technology to improve teaching and learning by supporting the district curricular goals.		The plan delineates clear goals, measurable objectives, annual benchmarks, and a clear implementation plan for using technology to support the district's curriculum goals and academic content standards to improve learning.	The plan suggests how technology will be used, but is not specific enough to know what action needs to be taken to accomplish the goals.

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

h. Description of or goals about the district policy or practices that ensure equitable technology access for all students.		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.	The plan does not describe policies or goals that result in equitable technology access for all students. Suggests how technology will be used, but is not specific enough to know what action needs to be taken to accomplish the goals.
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.		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.	The plan suggests how technology will be used, but is not specific enough to know what action needs to be taken to accomplish the goals.
j. List of clear goals, measurable objectives, annual benchmarks, and an implementation plan to use technology to improve two-way communication between home and school.		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.	The plan suggests how technology will be used, but is not specific enough to know what action needs to be taken to accomplish the goals.
k. Describe the process that will be used to monitor the Curricular Component (Section 3d-3j) goals, objectives, benchmarks, and planned implementation activities including roles and responsibilities.		The monitoring process, roles, and responsibilities are described in sufficient detail.	The monitoring process either is absent, or lacks detail regarding procedures, roles, and responsibilities.
4. PROFESSIONAL DEVELOPMENT COMPONENT CRITERIA Corresponding EETT Requirement(s): 5 and 12 (Appendix D).	**Page in District Plan**	**Example of Adequately Addressed**	**Example of Not Adequately Addressed**

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

a. Describe the existing hardware, Internet access, electronic learning resources, and technical support already in the district that will be used to support the Curriculum and Professional Development Components (Sections 3 & 4) of the plan.		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.		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.		The annual benchmarks and timeline are specific and realistic. Teachers and administrators implementing the plan can easily discern what needs to be acquired or repurposed, by whom, and when.	The annual benchmarks and timeline are either absent or so vague that it would be difficult to determine what needs to be acquired or repurposed, by whom, and when.
d. Describe the process that will be used to monitor Section 5b & the annual benchmarks and timeline of activities including roles and responsibilities.		The monitoring process, roles, and responsibilities are described in sufficient detail.	The monitoring process either is absent, or lacks detail regarding who is responsible and what is expected.

6. FUNDING AND BUDGET COMPONENT CRITERIA Corresponding EETT Requirement(s): 7 & 13, (Appendix D)	Page in District Plan	Example of Adequately Addressed	Example of Not Adequately Addressed
a. List established and potential funding sources.		The plan clearly describes resources that are available or could be obtained to implement the plan.	Resources to implement the plan are not clearly identified or are so general as to be useless.
b. Estimate annual implementation costs for the term of the plan.		Cost estimates are reasonable and address the total cost of ownership, including the costs to implement the curricular, professional development, infrastructure, hardware, technical support, and electronic learning resource needs identified in the plan.	Cost estimates are unrealistic, lacking, or are not sufficiently detailed to determine if the total cost of ownership is addressed.
c. Describe the district's replacement policy for obsolete equipment.		Plan recognizes that equipment will need to be replaced and outlines a realistic replacement plan that will support the Curriculum and Professional Development Components.	Replacement policy is either missing or vague. It is not clear that the replacement policy could be implemented.
d. Describe the process that will be used to monitor Ed Tech funding, implementation costs and new funding opportunities and to adjust budgets as necessary.		The monitoring process, roles, and responsibilities are described in sufficient detail.	The monitoring process either is absent, or lacks detail regarding who is responsible and what is expected.
7. MONITORING AND EVALUATION COMPONENT CRITERIA Corresponding EETT Requirement(s): 11 (Appendix D).	**Page in District Plan**	**Example of Adequately Addressed**	**Example of Not Adequately Addressed**

a. Describe the process for evaluating the plan's overall progress and impact on teaching and learning.		The plan describes the process for evaluation using the goals and benchmarks of each component as the indicators of success.	No provision for an evaluation is included in the plan. How success is determined is not defined. The evaluation is defined, but the process to conduct the evaluation is missing.
b. Schedule for evaluating the effect of plan implementation.		Evaluation timeline is specific and realistic.	The evaluation timeline is not included or indicates an expectation of unrealistic results that does not support the continued implementation of the plan.
c. Describe the process and frequency of communicating evaluation results to tech plan stakeholders.		The plan describes the process and frequency of communicating evaluation results to tech plan stakeholders.	The plan does not provide a process for using the monitoring and evaluation results to improve the plan and/or disseminate the findings.
8. EFFECTIVE COLLABORATIVE STRATEGIES WITH ADULT LITERACY PROVIDERS TO MAXIMIZE THE USE OF TECHNOLOGY CRITERION Corresponding EETT Requirement(s): 11 (Appendix D).	**Page in District Plan**	**Example of Adequately Addressed**	**Example of Not Adequately Addressed**
If the district has identified adult literacy providers, describe how the program will be developed in collaboration with them. (If no adult literacy providers are indicated, describe the process used to identify adult literacy providers or potential future outreach efforts.)		The plan explains how the program will be developed in collaboration with adult literacy providers. Planning included or will include consideration of collaborative strategies and other funding resources to maximize the use of technology. If no adult literacy providers are indicated, the plan describes the process used to identify adult literacy providers or potential future outreach efforts.	There is no evidence that the plan has been, or will be developed in collaboration with adult literacy service providers, to maximize the use of technology.

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

Appendix J - Technology Plan Contact Information
(Required)

Education Technology Plan Review System (ETPRS)
Contact Information

County & District Code: ____41 - 69021_____

School Code (Direct-funded charters only): _____

LEA Name: _____San Carlos Elementary_____

*Salutation: _____Dr._____

*First Name: _____Thomas_____

*Last Name: _____Keating_____

*Job Title: _____Director of Instruction and Educational Technology_____

*Address: _____826 Chestnut St._____

*City: _____San Carlos_____

*Zip Code: _____94070-3802_____

*Telephone: _____650-508-7333_____

Fax: _____(650) 508-7340_____

*E-mail: _____tkeating@sancarlos.k12.ca.us_____

Please provide backup contact information.

1st Backup Name: _____Kelly Causi_____

E-mail: _____kcausi@sancarlos.k12.ca.us_____

2nd Backup Name: _____Lynette Hovland_____

E-mail: _____lhovland@sancarlos.k12.ca.us_____

* Required information in the ETPRS