Technology Plan

Mill Valley Elementary

July 1, 2012 - June 30, 2015

This plan is for EETT and E-Rate.

Table of Contents

Background and Demographic Profile - Optional 1

1. Plan Duration 4

2. Stakeholders 5

3. Curriculum 7

3a. Current access by teachers and students 7

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

3c. District curricular goals to support plan 17

3d. Teaching and learning goals (Measurable Objectives, Benchmarks) 19

3e. Acquiring technology skills AND information literacy skills (Measurable Objectives, Benchmarks) 21

3f. Ethical use 24

3g. Internet safety 26

3h. Description of access for all students 28

3i. Student record keeping 29

3j. Two way home-school communication 31

3k. Curriculum Monitoring Process 34

4. Professional Development 35

4a. Summary of Teacher and Administrator Skills and Needs 35

4b. Providing PD Opportunities (Measurable Objectives, Benchmarks) 44

4c. Professional Development Monitoring 48

5. Infrastructure, Hardware, Technical Support, and Software 49

5a. Existing Resources 49

5b. Needed Resources 51

5c. Annual Benchmarks and Timeline for obtaining resources 52

5d. Process to Monitor 5b 57
6. Funding and Budget 58
6a. Established and Potential Funding Sources 58
6b. Annual implementation costs 61
6c. District replacement policy 62
6d. Budget monitoring 63
7. Monitoring and Evaluation 64
7a. Overall progress and impact evaluation 64
7b. Evaluation schedule 66
7c. Communicating evaluation results 66
8. Collaborative Strategies with Adult Literacy Providers 67
9. Effective, Researched-Based Methods and Strategies 68
9a. Research Summary, District Application 68
9b. Technology to Deliver Rigorous Curriculum 72
Appendix J - Technology Plan Contact Information 73

Background and Demographic Profile

Executive Summary

This district technology plan outlines how the Mill Valley School District will integrate technology throughout our district's classroom and administrative practices to best prepare our students for productive futures in the 21st century. Instructional technology in the Mill Valley School District will assist staff and students to restructure the way they teach and learn. Personal computers and mobile devices are a way of life for our students, and will play a major role in preparing them for the twenty-first century. Teachers, students, parents, and the community will be part of this transformation and all will benefit from the infusion of technology in the Mill Valley Elementary School District.

This plan has been developed not only to set future direction for the use of technology in teaching and learning, but also to help the school district qualify for e-Rate benefits and potential State and Federal funding through educational technology grants. Having a current State certified technology plan also qualifies us to continue receiving Federal Formula funding under the Enhancing Education Through Technology (EETT) grant that we have benefited from in years past.

The Mill Valley School District Technology Plan describes the process in which we will integrate technology into the district curriculum. For each goal the Technology Master Plan outlines the objectives that will support the mission of the Mill Valley School District. The plan identifies the method for routine review and revision to ensure continued alignment of technology with curriculum development and the district's mission. The plan will be reviewed annually and specified areas may be reviewed more frequently, as indicated.

Introduction

The Mill Valley School District (MVSD) is located 13 miles north of San Francisco and the Golden Gate Bridge in suburban Marin County near redwood groves, oak woodlands and the natural splendor of Mount Tamalpais State Park. Like other San Francisco Bay Area communities, Mill Valley, CA has an active parent population with many employed in the high technology industry. This demographic helps create common high expectations in the District and community for the application of technology in MVSD.

The School District is comprised of five elementary schools and one middle school with a total enrollment of 3,000 students. Ninety percent of middle school graduates attend high school in the neighboring Tamalpais Union High School District. The District partners with the Marin Teaching Network (MTN), a K-14 consortium for southern Marin County that helps prepare Mill Valley students and others for transition from their K-8 elementary school district to high school. The group focuses on curriculum articulation as well as formative assessment and professional development so that all students in southern Marin schools arrive at high school with comparable learning experiences and core competencies.

In the past two decades, most of the District’s schools have earned distinction as California Distinguished Schools. Old Mill Elementary School is a three-time recipient since the award's inception in 1985. The California Business recognized all six schools as highest performing

California Honor Roll Schools in 2007-08 for Educational Excellence Foundation (CBEEF) and Just For the Kids- California (JFTK-CA).

Seventy-eight percent of the District's students are white, 4.7% are Hispanic or Latino, and 7.4% are Asian. 2.7% of students are enrolled in the GATE program. Testing scores are well above average for the state and are among the highest in the county. 81.3% of District students scored proficient or above in CST Math Testing (2005). 80.5% of students scored proficient or above in Language Arts. All MVSD schools maintain a shared commitment to providing an outstanding educational program that includes the arts and technology.

Mission Statement

Our mission is to provide an excellent education that enables all students to achieve academic success and their full potential. We prepare our students to be responsible, contributing members of our community and wise stewards of our natural environment.

Mill Valley School District Goals

Five major goal areas are identified in the long-range strategic plan.

- THE EDUCATIONAL PROGRAM – Sustain, enhance and continuously assess our educational program: curriculum, instruction, and the learning environment.
- MIDDLE SCHOOL - Strengthen the reputation and program of the Middle School in order to provide a rich, fulfilling middle school experience for all students.
- FACULTY AND STAFF – Attract, appreciate, develop, and retain excellent faculty, administrators and staff.
- FINANCE – Create long-term funding sources and ensure the continuation of fiscally prudent spending practices to enable the District to establish and maintain stability, security and the highest quality of education for the children.
- COMMUNICATION – Effectively communicate throughout the District, so that students, staff, families and the entire community are informed and empowered to participate.

District strategic goals that will help shape the District Technology Plan

The Mill Valley School District will:

- Use information technologies to help students learn how to learn, solve problems, and to gain access to a wide variety of resources within and beyond the school.
- Use technology in a fashion that respects the special talents of each individual in the school, and helps each one develop new knowledge and skills while building self-esteem. Each student will have access to the technology tools most appropriate for his/her own learning style.
- Provide the appropriate technology tools to enable students to be active and enthusiastic learners who use technology to gain new perspectives and knowledge, and to share that knowledge with others.

- The role of the teacher will continue to evolve from dispenser of information to facilitator of learning, using technology as a key element in this shift. All teachers will integrate technology into their teaching as well as their own professional development. The Mill Valley Elementary School District will assist teachers and staff in developing the skills necessary to make this integration possible.
- Each teacher in the Mill Valley Elementary School District will be equipped with a computer that is fully capable of connecting with many sources of information; collaborating with colleagues, and communicating with parents.
- Proficiency in the use of technology tools will be evaluated as part of student assessment in curricular areas as well as teacher integration.
- Technology will continue to play a key role in the administration, management and communication within the schools and District.

Parent Involvement

"Kiddo!"- the Mill Valley Schools Foundation, was established by parents in 1982 to supplement shrinking school budgets. Initially supporting Art in the schools, it has expanded to provide financial support of music, drama, art, dance and poetry programs and district technology needs. Kiddo! has raised over $12 million for Mill Valley Schools. Annually, Kiddo! commits $225,000 in support for technology specialists in the schools and district office.

School websites and e-mail provide avenues of communication between school and home. Parents are welcome to volunteer within the classroom to assist in the use of technology based projects and activities.

1. Plan Duration

July 1, 2012 - June 30, 2015

This District Education technology plan is for the three year period beginning on July 1, 2012 and ending on June 30, 2015. The plan includes goals, objectives, activities and benchmarks for the next three years. Included in the plan are a yearly review, yearly benchmarks, and adjustments to the plan as necessary. The plan serves as our Enhancing Education Through Technology plan as required by No Child Left Behind and is aligned to the guidelines of EETT.

The plan also meets the requirement of a comprehensive technology plan as required for E-rate funding through the Schools and Library Division of the Universal Service Administrative Company (http://www.sl.universalservice.org). An annual review will help meet the goals of the E-rate program.

2. Stakeholders

Paul Johnson

Superintendent, Mill Valley School District

Chris Coffelt

Director of Technology

Jane Ritter

District Librarian

Jonna Palmer, Lisa Monge, Kathy Gordon, Dee Kauer

Teacher Librarians

Lynne Watenpaugh

Teacher, Mill Valley Middle School

Michael Stachon, Teresa Shern, Kate Sprague

Teachers, Edna Maguire Elementary School

Jennifer Berry

Teacher, Old Mill Elementary School

Andrea Dunn, Joe Martini

Teacher, Park Elementary School

Kim Munoz, Dan Guliasi

Teachers, Strawberry Elementary School

Kate Kellman, Teri Hagen

Teacher, Tam Valley Elementary School

Ryan Green

District IT Staff

In order to develop our technology plan we've created a team of representatives from each school and the district office. The planning team met on three occasions between February and March 2012 and collaborated in development of the district document using online document editors. The team will continue to work on educational technology issues related to teaching and learning

as the district technology advisory committee. The School District's Technology Advisory Committee (DTAC) will have ongoing communication and input from technology committees at each school site.

Parents and community members were not formally included in the tech plan writing process, but their input as stakeholders is evident in the technology resources that they have and will continue to provide. For instance, the integration of mobile devices and improved wireless access outlined in this plan would not have been included without the support and input from parents and community members.

The Board of Directors will review and approve the District Technology Plan prior to implementation. Support of the governing board will be obtained through the annual presentation and review of plan's progress and implementation status report.

3. Curriculum

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

The curriculum section of the plan focuses not only on student mastery of academic standards and technical skills, but also on helping students develop the 21st century skills of digital age literacy, inventive thinking, effective communication, and high-productivity.

The following section describes teachers' and students' current access to technology tools at each site.

Edna Maguire

K-2 classrooms have one or two desktop computers per classroom. A 10-cart mobile lab is available to kindergarten. A 20-cart mobile lab is available to the first and second grade wing, but those laptops are dated and regularly require restarting/troubleshooting. Primary teachers use these laptops during their centers. Grade 3-5 classrooms use two mobile laptop carts containing 20 and 30 laptops. Each classroom also had one or two desktops. There is school-wide wireless access. All classrooms have an LCD projector, Document Camera and a digital camera. The school also has two video cameras, and each teacher has a flip camera. There is one SMART board in a fifth grade classroom that is used sparingly. The library has 10 desktop computers and a cart containing 10 laptops. These are used for instruction with grades 1-5. Students have access to the desktop computers every morning recess, two days a week when the library is open during lunch recess, and afternoon recess. There is access starting at 8:00am four days a week, but no access after school. There is after school access through Homework Club (for selected students) on Tuesdays and Thursdays with the RAMP teacher. Every teacher has a district provided laptop. All third, fourth and fifth grade teachers have iPads. There is one 30 cart of PC Netbooks in the office which is used by upper grade teachers for word processing and research. Resource and RAMP have two desktops available for student usage. Software subscriptions include, Lexia Learning, Rosetta Stone, KidPix, MAPs (4th grade), EBSCO, World Book, and Enchanted Learning. There are nine laser printers and one color laser printer between the office, hallways, and classrooms, and various inkjet printers in individual classrooms.

Mill Valley Middle School

The Middle school has two computer labs with approximately 30 desktop computers in each. One lab is used for technology instruction and the other is available for teacher sign-up. The library has 16 desktop computers, 30 laptop computers, 30 iPads, and 15 iPod Touches. Students have access to the desktop computers during the school day and for one- hour after school. The other devices are available for teacher check out and in-library instruction. By August 2012, the common area in each pod floor will have a mini-lab that will consist of approximately 7- 8

desktops. These labs are available for use during class time. Each teacher has a laptop provided by the District that teachers have access to at all times. Additional technology tools include: LCD projectors and document cameras in the majority of classrooms, digital cameras and Alpha Smart word processors available for check out.

Most students at MVMS have access to a computer and the internet at home. The public library is open seven days a week and also offers access to computers and the internet.

Old Mill

The school has 44 classroom computers, 8 computers in the library media center and 50 laptops on mobile carts. There is no computer lab. Due to the facility design (with classrooms on three levels and outside portables), staircases form a barrier to access making it difficult to utilize mobile carts in Grades K-3. Seventeen laptops are located on the third floor and 30 laptops are on the first floor, providing access only for 4th and 5th grade. While there are 1-4 desktop machines in grades 3-5, many are in need of updating and compatibility issues occur. Old Mill also has an iPad cart with 30 iPads for student use. Teachers can check out digital cameras and camcorders. All teachers have access to digital projectors although they are not always compatible with teacher laptops. There is no student access to computers after school. Teachers have laptops on loan from the district and can connect from home.

Park School

The library has a 20 laptop cart, 4 other laptops, and 4 new desktops. There is a cart with 30 iPads, and each teacher and the principal has an iPad. There are three mobile carts with wireless capability, each with 24-30 laptop computers. Because of physical plant limitations, scheduling and teacher preferences, the amount of student access to technology varies from grade to grade. Most student groups have appropriate access, as needed. There is no access to technology before and after school due to building access and supervision. All computers provide Internet access. Fifth graders have Internet accounts which allow them to access work from home. Each teacher has an LCD projector, document camera, Flip video camera and digital camera. Teachers are provided with personal laptops on loan from the district. The library website provides online access to World Book, EBSCO, and Enchanted Learning. Access is available to these databases from both school and home. All computers have access to Type to Learn, Microsoft Office, iWork programs, KidPix, Comic Life, and Keynote. Most students have access to the Internet at home.

Strawberry Point

There are 40 classroom computers at Strawberry Point, providing 1-2 computers per teacher. The library has 15 desktop computers. There are four mobile laptop carts- one cart of 30 netbooks, one cart of 30 MacBooks, two carts of 20 MacBooks. Each classroom teacher and support personnel have Macintosh laptops provided by the district. Some support personnel (RAMP, EL,

Speech) have iPads for school use. The Learning Center has several desktop computers available for students receiving Special Education Services. There are digital cameras, video cameras, and LCD projectors available for use. Each classroom has an overhead projector and a document camera. The school has one digital microscope that can be used with a digital projector. The library has a SmartBoard. A school scanner and multiple network laser printers are also accessible. Access to technology is available for all student groups. Wireless connectivity is available for all mobile computers throughout the school. All classrooms have scheduled library times where technology is integrated. Library computers are also available for use outside of scheduled times. Laptop carts and other technology devices can be checked out of the library and an online calendar is used for scheduling. The library website provides online access to World Book, EBSCO, and Enchanted Learning. Access is available to these databases from both school and home. All computers have access to Type to Learn, Microsoft Office, iWork programs, Comic Life, and KidPix.

Tam Valley

There are 65 classroom computers and each room has 2-4 working computers. All teachers have laptops on loan to them from the district. There are 16 new computers in the library for student use. There are two mobile MacBook laptop carts, one with 20 and one with 30. There is also a cart with 20 Netbooks. There are also three iPad carts: one with 30, one with 25, and one with 25. The third grade classrooms and the Learning Center have additional iPads. There are also 30 AlphaSmart NEOs in each of the fourth grade classrooms for typing practice and word processing. Frequency and use of technology varies from class to class. All school computers have wireless Internet access Every classroom has wall mounted LCD projectors with interactive whiteboards and document cameras. Teachers each have their own digital camera and Flip video camera. Three digital movie cameras and five student cameras are available for checkout. Fourth grade has a set of 8 digital cameras. The school has one digital microscope that can be used with a digital projector. All classrooms have scheduled library times where technology is integrated. Library computers are also available for use outside of scheduled times. The library website provides online access to World Book, EBSCO, and Enchanted Learning. Access is available to these databases from both school and home. All computers have access to Lexia, Type to Learn, Microsoft Office, iWork programs, and KidPix. Technology is available to all students, during the school day. Most students have computer and Internet access at home.

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

The following section describes current use of hardware and software to support teaching and learning at each site.

Edna Maguire Elementary

Grades K-2

Students learn how to log-in and operate computers. In the library, they learn about computer terminology and basic functions like capitalizing and using the mouse. First graders use KidPix with their insects, farm animals, and ocean research projects. Second graders use World Book Online to research and Keynote to share the information from their life cycles projects. They also go online to instructional sites that promote reading, math practice, and interactive learning (such as www.starfall.com).

Grade 3-5

Fourth grade students work on typing skills (Type to Learn) weekly. Some third grade students are introduced to Type to Learn. Fourth and fifth grade students are required to submit word processing assignments regularly. Some third grade students are introduced to word processing. All students learn how to use technology for research. They are taught information literacy skills both in the library and in the classroom. Students have access to EBSCO online databases and World Book Encyclopedia through the school library. They use interactive websites to build grade level skills (such as online dissections in science, History Alive, FOSSWeb and http://www.multiplication.com). All students learn how to share knowledge using presentation software like PowerPoint and Keynote. Other uses of technology in fourth grade include Web 2.0 forms of collaboration and communication such as a classroom blog, Google Docs, Glogster, and BBC Science. Many 4th and 5th grade students maintain electronic files of all their work that can be transferred between home and school computers. Students also use other modes of technology such as digital cameras and video cameras to enhance learning and to interact with others.

Administrative Usage

All teachers are expected to maintain a classroom WEB site for home school communication. iWeb, Schoolwires and Blogspot are currently being used. All teachers use Aeries online portal to submit daily attendance and progress reports. Fifth grade teachers use EasyGradePro for grade reporting during rotation. Entourage calendars are used for laptop cart sign-ups. IEP paperwork is now done online through SEIS. Home/school communication regularly happens through email in the classroom and the office.

Mill Valley Middle School

MVMS students currently use the iWork and iLife suites, the Adobe Creative Suite, Scratch, Google Earth, SketchUp, Microsoft Word and iStop Motion to create content-related projects. The library subscribes to several online services and databases including EBSCO, SIRS Discoverer, World Book Online and BrainPop. Students can access the databases from school and home. Teachers have access to all of this applications and many use the grading program EasyGrade Pro and maintain a class website currently hosted by School Wires. Some teachers have begun using My Big Campus (available through our district filter system, LightSpeed) a closed social network to interact with students online with regards to classroom assignments.

Sixth graders take a one-trimester technology class which includes instruction in specific applications such as word processing, digital image editing, animation, digital slide shows, digital storytelling, digital music production. Some seventh and eighth graders choose to take an advanced technology class as an elective. All teachers and students are encouraged to come to the library for information literacy and technology lessons related to each curricular area at MVMS. Students learn the basics of effective keyword searching and how to evaluate internet sites for authenticity. Many teachers also bring their classes to the library to collaborate on curricular units involving online research and culminating in projects using applications including iMovie, Pages and Keynote. Many teachers include an assignment that includes a technology component in their curriculum.

Old Mill Elementary

All classroom teachers use computers for Internet and Email. All classrooms have a digital projector that can be linked to the teacher laptop. Teachers have access to digital video cameras and digital cameras.

Kindergarten

Students have access to the computer through the teacher laptop and whole group instruction. They do not have computers in their classroom and do not have access to the mobile carts.

First Grade

Students use the teacher's laptop to blog on the class web site. They also use web sites such as http://www.starfall.com and have bookmarked other appropriate reading sites.

Second Grade

Students have access to a few desktop computers per classroom. They access math web sites for flashcard programs. Computers are rarely used in the K-2 classroom.

Third Grade

Students work on their typing skills using Type to Learn. Students also use word processing software for typing, Safari for web searches and KidPix for Art. They use the AlphaSmarts for word processing, then transfer work to classroom desktops for editing and printing. Students

learn basic research techniques then apply them to projects on solar system, plants and animals, and Mill Valley history.

Fourth Grade

Students use laptops in the classroom to research biomes, missions, and California biographies. They then create Keynote presentations, which they present to parents and peers. Students practice keyboarding skills using Type to Learn.

Fifth Grade

Students use laptops for various research projects including looking up information, word processing, and formatting text in a variety of ways (i.e. text boxes, word art, pictures). They create and format an explorer newspaper. Speeches are recorded and uploaded to the class website. Students research and create Keynote presentations on planets. Students create "About Me" brochures on the laptops. Students practice keyboarding skills using Type to Learn and they have created presentations with iMovie.

ELL/RSP

EL students have access and use Rosetta Stone during the school day and from home. RSP students have access to SOLO Software from resource teacher's laptop but no access within the general education classroom but no access from desktop in the RSP room. There are currently no students requiring assistive technology per IEPs or IEP goals but several students could benefit from the use of assistive writing programs. Students also access computers from the school library.

Library

In 1st and 2nd grade, students use websites for research and demonstrations/ exploration of website to support curriculum. At the end of 2nd, grade the students begin using the library catalog. In 3rd, 4th and 5th grades, the students use the library catalog and access the library website to research specific content areas. The students model computer and researching techniques for peers.

Park Elementary

The teacher librarian collaborates with teaching staff to plan, integrate, and implement technology curriculum at all grade levels. All classrooms use email to communicate with staff and parents. The school website is used as a tool for home-school communication. Teachers use laptops to create newsletters and handouts, which are used for homework and curriculum in various content areas. Digital Cameras, LCD projectors, document cameras, Flip video cameras, and printers are standard equipment for all classrooms and for some specialists. Teachers use Flip cameras to send home videos of classroom activities and field trip footage. All classrooms have Internet access.

Kindergarten

Teachers create digital slideshows using iPhoto.

First Grade

Teachers use document cameras for language arts, math, science and social studies. Teachers use laptops to provide students with writing experiences that include illustration, capture of images from the Internet for use in documents, and simple use of Microsoft Word menus. The Internet is used to access content in all subject areas and for research purposes. Students are introduced to KidPix, Comic Life, Microsoft Word and Safari.

Second grade

Students create picture books using iPhoto and digital cameras. A document camera is used in all curricular areas. Students use Safari, Enchanted Learning, and World Book to conduct research in all subject areas. Students use laptops as a part of math centers. . Students use Comic Life for storytelling and for presenting non-fiction information.

Third Grade

Students use Keynote, Comic Life, Pages, EBSCO, World Book, and Safari for research projects and presentations in all subject areas. By third grade, all students are introduced to Type to Learn and use it for keyboard practice.

Fourth Grade

Students use Microsoft Word to present poetry compositions, and writer's workshop. Students conduct research in all content areas. Students use Internet for math practice. Students are introduced to basic concepts of digital citizenship. Common Sense Media curriculum on digital citizenship is used to educate students and parents on safe technology use. Laptops are used for word study and math skills with RAMP students.

Fifth Grade

Each classroom has a writing blog and a poetry blog which students post to throughout the year. Each student creates a blog where they are required to post information on a topic, write a bibliography, and reflect on the entire process. There is a 5th grade math blog used by students with advanced math skills who place out of a unit of study. Using Google Docs, students create word processing documents that can be accessed at home and at school, for fiction and non-fiction. Students use the Internet for research in all content areas. The Internet is used in math for skills practice with RAMP students. Students use online reference sources, such as EBSCO and World Book to support research. Digital citizenship curriculum is used to educate students and parents on safe technology use. Students use the document camera and projector to present information.

Special Education

The Resource Specialist classroom is equipped with a projector. Students have access to laptops from the East and West Wing laptop carts for Internet access, Word processing, and math skills.

Strawberry Point Elementary

The teacher librarian collaborates with teaching staff to plan, integrate, and implement technology curriculum at all grade levels. The school website is used as a tool for home-school communication. In addition, many teachers communicate via email. All students have access to Lexia to support the Language Arts curriculum.

Kindergarten

Students learn basic computer skills using KidPix for drawing and assignments that teach alphabet, sound and word recognition skills. Students are instructed in responsible technological use.

First Grade

Computers are used for storytelling. Garage Band is used for creating audio books. There is teacher-directed use of a SmartBoard in the library. Students use word processing software to write and revise a story based upon wordless books. Students are introduced to World Book Online as a reference source and learn to navigate websites to find information. Students are instructed in responsible technological use.

Second Grade

Students utilize Keynote in order to create presentations on Extraordinary People and demonstrate knowledge of Animal Life Cycles by creating diagrams. These activities introduce proper window management while searching and copying images from the Internet. Web sites are used to reinforce math and language arts skills. Students use KidPix to present a written paragraph and illustration on an animal research project. Students are introduced to online resources (such as World Book Online, Enchanted Learning) and websites that can be utilized for research. Teachers make use of the SmartBoard to show Google Earth and other lessons. Students are instructed in responsible technological use and respecting personal property in a digital environment.

Third Grade

Students create riddles in Social Studies using Keynote presentation software. Google images are accessed, selected and resized to illustrate the Riddle presentations. They learn to create bullets in order to add text and how to use color and shape tools. In Math the students create geometric pictures using Pages and input fraction data into an Excel template to show a pie chart. Students use ComicLife to make a comic retelling the book *Charlotte's Web*. In Science and Social Studies classes, the Internet is used as a research tool and appropriate sites are bookmarked in advance. Word processing assignments include the History of Mill Valley and a Coast Miwok Project. Students have access to laptops for creating Coast Miwok and History of Mill Valley final projects. Teachers make use of the SmartBoard to introduce Keynote and its features. The librarian created a storytelling Keynote slideshow to support the Coast Miwok Project. Type To Learn is used to build keyboarding skills. Each third grade teacher utilizes a Flip Camera to create "movies" demonstrating District Character Traits. Students are instructed in responsible

and ethical use of technology. A Schoolwires website for each teacher serves as a communication tool.

Fourth Grade

Students use Type To Learn to build their typing skills. They also use word processing for narrative and persuasive writing assignments. Students develop information literacy skills by learning how to evaluate website validity and reliability. Students use Keynote software to present information on California Regions They learn how to utilize EBSCO and other databases for research at school and home. The SmartBoard is used for whole group learning. Students receive instruction in Digital Citizenship including lessons involving the safe and ethical use of technology.

Fifth Grade

Students create newscast videos simulating weather reports using iMovie and Flip video cameras. They present reports on Explorers of the New World, using Keynote software. Word processing is used for a human body assignment, explorer reports, and various language arts writing assignments. Students practice information literacy skills by authenticating web sites. Type To Learn is used to build keyboarding skills. Students are taught proper use of online databases and access them at home. Students receive instruction in Digital Citizenship including lessons involving the safe and ethical use of technology and creating effective passwords.

Support Services (Special Education, English Language Learner, Reading and Math Program).

Students use voice-activated word processing software to assist with writing. Students use audio books to make literature accessible. All ELL (English Language Learner) students have personal accounts to a web-based *Rosetta Stone* program to supplement English Language development.

Tam Valley Elementary

All classroom teachers use technology for attendance, progress reports, newsletters, email, class web pages, graphic illustration, curriculum support materials and photo displays. All teachers use both a document camera and interactive whiteboard to engage students in learning.

Teacher Librarian

The teacher librarian collaborates with teaching staff at all grade levels to plan, integrate and implement technology curriculum. The Library maintains a library web site that has links to the library catalog, subscription databases, World Book Encyclopedia, and web sites to support curriculum and learning.

Kindergarten

In Kindergarten, teachers use KidPix to support the primary curriculum. They create slide shows of student activities with digital images and iPhoto. Keynote is used for assessments. Teachers also use iMovie and Comic Life.

First Grade

Students access websites like Starfall [http://www.starfall.com] for word comprehension and phonics, for math support, access to Enchanted Learning and World Book Online for research. Teachers use iMovie and iDvd software for showing videos.

Second Grade

Students access websites which support the science and social studies curriculum. They use databases, such as World Book Online and Enchanted Learning, for research. Websites are also used to promote enrichment or remediation. Word processing software is used to type poems. IPhoto is used for processing digital images that accompany student projects. A digital microscope is used to magnify objects in science.

Third Grade

Students use Type to Learn to improve their keyboarding skills. They learn to use the library website to access the catalog, databases, and selected websites to support the curriculum. A digital camera and IPhoto are used to gather and process images. Students use Comic Life to create graphic novels and KidPix slide show for science presentations. Teachers make Keynote presentations, use graphics for lesson design and digital cameras for projects. Students create Keynote presentations as well as commercials using iMovie. Web sites are used for whole group learning and classroom demonstrations.

Fourth Grade

Students create slide shows using Keynote for research reports and class presentations. They research using subscription databases and topic-related websites as well as evaluate websites. They use Word Processing software for writing and publishing and AlphaSmart NEOs are used weekly to help improve keyboarding skills. Digital cameras are used to gather images for projects. Comic Life software allows students to tell a story and add photos. Teachers create Keynote presentations to teach curriculum. They also use digital cameras. Students maintain electronic files of all their work that can be transferred between home and school computers.

Fifth Grade

Students perform research using subscription databases and web sites. They evaluate websites, use digital cameras to capture images and word processing for publishing.

Learning Center

The learning center supports students' classroom technology activities in a small group setting with additional teacher support. Additional remedial opportunities are available with the use of programs such as Lexia. Websites such as Starfall, Xtramath and Dancemat Typing provide individual practice in areas of deficit. Additional keyboarding opportunities are available for students with disabilities which impact their writing and/or fine motor skills. Several students

have individual assistive technology in place for parts or all of their school day as dictated by their IEPs, particularly those students with low-incidence disabilities such as visual and hearing disabilities.

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

The district's overall goal is to have students meet or exceed Common Core State Standards (CCSS) in the core curriculum with an emphasis on students in lower performance levels increasing achievement at a faster rate. All school sites incorporate technology planning into their school site plans as a tool for learning and for meeting state content standards. School action plans address curricular goals specific to the site, based on their analysis of student performance data.

Recognized as an outstanding district, the MVSD provides an educational program based on both the high academic standards and the keen interest of staff and community. There is a commitment to provide students with a core curriculum that includes the arts. Though sharing the same academic expectations for students, each school has its own culture and shared practices. By integrating gardens, creeks, and wetlands in the curriculum, our schools have connected environmentally with their community.

The district provides a curriculum that is based on the Common Core State Standards (CCSS) and performance outcomes. It is expected of staff that they design their curriculum to promote a rigorous academic content that is challenging, integrative and exploratory to ensure learning. The primary curriculum goal is to sustain, enhance, and continuously assess our educational program: curriculum, instruction, and the learning environment.

As outlined in the MVSD Strategic Plan, the goal of our instruction is to engage and support all students in learning. Teachers utilize varied teaching and learning practices to access, evaluate and promote learning. This is done in an environment of mutual respect.

District strategic goals that will help shape the District Technology Plan

The Mill Valley School District will:

- Use information technologies to help students learn how to learn, solve problems, and to gain access to a wide variety of resources within and beyond the school.
- Use technology in a fashion that respects the special talents of each individual in the school, and helps each one develop new knowledge and skills while building self-esteem. Each student will have access to the technology tools most appropriate for his/her own learning style.
- Provide the appropriate technology tools to enable students to be active and enthusiastic learners who use technology to gain new perspectives and knowledge, and to share that knowledge with others.

- The role of the teacher will continue to evolve from dispenser of information to facilitator of learning, using technology as a key element in this shift. All teachers will integrate technology into their teaching as well as their own professional development. The Mill Valley Elementary School District will assist teachers and staff in developing the skills necessary to make this integration possible.
- Each teacher in the Mill Valley Elementary School District will be equipped with a computer that is fully capable of connecting with many sources of information; collaborating with colleagues, and communicating with parents.
- Proficiency in the use of technology tools will be evaluated as part of student assessment in curricular areas as well as teacher integration.
- Technology will continue to play a key role in the administration, management and communication within the schools and District.

The district's goal is to use technology not as a subject unto itself but as a diverse set of tools to enhance student learning. Despite current budget constraints, the district considers technology a priority at all school sites.

Five major goal areas are identified in the long-range strategic plan.

- THE EDUCATIONAL PROGRAM – Sustain, enhance and continuously assess our educational program: curriculum, instruction, and the learning environment.
- MIDDLE SCHOOL - Strengthen the reputation and program of the Middle School in order to provide a rich, fulfilling middle school experience for all students.
- FACULTY AND STAFF – Attract, appreciate, develop, and retain excellent faculty, administrators and staff.
- FINANCE – Create long-term funding sources and ensure the continuation of fiscally prudent spending practices to enable the District to establish and maintain stability, security and the highest quality of education for the children.
- COMMUNICATION – Effectively communicate throughout the District, so that students, staff, families and the entire community are informed and empowered to participate.

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: Teacher Use of Technology
We will increase the number of teachers utilizing technology as a tool to support all students in meeting, exceeding, and demonstrating mastery of state academic content standards.

Objective 3d.1.1: By June 2015, 100% of classroom teachers will demonstrate increased use of technology as a tool to improve delivery of instruction and to support all students in meeting, exceeding, and demonstrating mastery of state academic content standards.

Benchmarks:

- Year 1: By June 2013, 70% of teachers will demonstrate increased use of technology as a tool to improve delivery of instruction and to support all students in meeting, exceeding, and demonstrating mastery of state academic content standards.
- Year 2: By June 2014, 85% of teachers will demonstrate increased use of technology as a tool to improve delivery of instruction and to support all students in meeting, exceeding, and demonstrating mastery of state academic content standards.
- Year 3: By June 2015, 100% of teachers will demonstrate increased use of technology as a tool to improve delivery of instruction and to support all students in meeting, exceeding, and demonstrating mastery of state academic content standards.

Implementation Plan				
Activity	**Timeline**	**Person(s) Responsible**	**Monitoring & Evaluation**	**Evaluation Instrument**
Plan units of practice that incorporate use of technology and that have "real world" relevancy and are integrated to the grade level curricula	2012, Ongoing	Classroom Teachers, Teacher Librarians, DTAC	District administrators and school site administrators will track the development and implementation of all activities and accomplishments through monthly progress reports at regular district/site administration meetings. Modifications to our district activities will be	Teacher lesson plans, logs of technology usage
Teacher Librarians and Technology committee members will assist teachers in integrating technology skills into the curriculum.	2012, Ongoing	Teacher Librarians, DTAC		Classroom lessons

Allocate teacher time for professional development during staff meetings and professional development days. Survey staff and develop targeted staff training.	2012, Ongoing	District and Site Administrators, Classroom Teachers, Teacher Librarians, DTAC	made as needed in order to ensure that we meet or exceed measurable objectives.	Staff meeting and Professional Development day agendas
Teachers will take an annual survey to determine how they have effectively integrated technology skills into at least one curricular unit.	Spring 2013, Annually	Classroom Teachers, DTAC		Survey
Revisit and revise the MVSD technology standards outlining levels of proficiency for each grade. Teachers will understand and integrate standards at each grade level. The above annual teacher survey will illustrate teacher implementation and integration of the standards.	2013, Ongoing	Classroom Teachers, Teacher Librarians, DTAC		Meeting notes, teacher survey
Teacher technology survey will be developed to evaluate knowledge and implementation of technology standards.	Spring 2013	DTAC, Director of Technology		Online survey

Goal 3d.2: Students will use technology to master Common Core State Standards, support higher level thinking skills, increase collaboration, and participate in global learning communities.

Objective 3d.2.1: By June 2015, 100% of students will use technology in at least four projects as described in the Common Core Standards.

Benchmarks:

- Year 1: By June 2013, 100% of students will use technology to enhance student learning in at least one project as described in the Common Core Standards.
- Year 2: By June 2014, 100% of students will use technology in at least three projects as described in the Common Core Standards.
- Year 3: By June 2015, 100% of students will use technology in at least four projects as described in the Common Core Standards.

Implementation Plan				
Activity	**Timeline**	**Person(s) Responsible**	**Monitoring & Evaluation**	**Evaluation Instrument**
Teachers will adapt lesson plans so that students in all grades will create assignments that demonstrate appropriate use of technology skills to communicate understanding of learning objectives. DATC members will assist teachers in adapting and creating technology-rich units.	2012, Ongoing	Site Administrators, Teachers, District Technology Advisory Committee (DTAC), IT Staff	Curriculum Groups, Grade Level Coordinators and Site Administrators will track the implementation of all activities, reporting progress annually at district meetings. Modifications to district activities will be made as needed.	Logs of mobile lab usage, samples of student projects, teacher lesson plans, rubrics, and other formative assessments.
Teachers will develop rubrics or other assessment instruments.	2012	Teachers, DTAC, IT Staff		
Students will produce or participate in projects that demonstrate mastery of technology skills.	2012, Ongoing	Site Administrators, Teachers, District Technology Advisory Committee (DTAC) IT Staff		

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.

Information Literacy

Information literacy skills are lifelong learning skills that require a student to apply higher-level thinking. These skills are not taught in isolation but integrated throughout the curriculum. Information literacy requires collaboration between all stakeholders. They will work together to teach the essential knowledge and skills that prepare students to locate, analyze, evaluate, interpret and communicate information and ideas in an information-intensive environment. Authentic practice of these skills will enable students to realize their potential as informed citizens who think critically and solve problems.

The use of technology is an integral part of information literacy. The Mill Valley School District Technology Standards lists these grade-level appropriate technology skills, which include: being able to effectively search the library catalog, online databases, reference sources, and Internet;

critically evaluate the authority, credibility and currency of information; note-taking; presentation of information in a variety of formats such as word processing and multimedia.

Goal 3e.1: By 2015 All K-8 students will achieve the Mill Valley School District Technology Standards goal of being technology literate by 8th grade.

Objective 3e.1.1: By June 2015, 100% of the students will demonstrate proficiency with the Mill Valley School District Technology Standards.

Benchmarks:

- Year 1: By June 2013, 100% of the Teachers will be introduced to the Mill Valley School District Technology Standards.
- Year 2: By June 2014, 100% of the students will have been introduced to the Mill Valley School District Technology Standards.
- Year 3: By June 2015, 100% of the students will demonstrate proficiency with the Mill Valley School District Technology Standards.

Implementation Plan				
Activity	**Timeline**	**Person(s) Responsible**	**Monitoring & Evaluation**	**Evaluation Instrument**
Provide professional development to raise teacher awareness of the Mill Valley Technology and Common Core standards	2012, Ongoing	Principals, Teacher Librarians, DTAC	Curriculum Groups, Grade Level Leads and Site Administrators will track the implementation of all activities, reporting progress annually at district meetings. Modifications to district activities will be made as needed.	Meeting Notes from Staff Meetings and professional development time dedicated to technology standards embedded in Common Core Standards
Assess student technology proficiency progress on an annual basis	2012, Annually	Classroom teachers, teacher librarians		2013, current assessment, 2014 Self assessment, 2015 comprehensive assessment
Develop self-assessments for 2-8 students	June 2013	DTAC, Director of Technology		Assessment for students
Develop assessments for 2-8, to measure expected independent skills by grade level	June 2014	DTAC, Director of Technology		Assessment for students
Introduce and familiarize students to MVSD Technology Standards through grade-appropriate activities	2013-15	Classroom teachers, teacher librarians		Teacher lesson plans, staff meeting notes

Objective 3e.1.2: By 2015, 100% of all 2-8 students will meet the Mill Valley School District Technology Standards (independent mastery standards per grade level) as measured by district assessment.

Benchmarks:

- Year 1: By 2013, 70% of all 2-8 students will meet the Mill Valley School District Technology Standards (independent mastery standards per grade level) as measured by district assessment.
- Year 2: By 2014, 80% of all 2-8 students will meet the Mill Valley School District Technology Standards (independent mastery standards per grade level) as measured by district assessment.
- Year 3: By 2015, 100% of all 2-8 students will meet the Mill Valley School District Technology Standards (independent mastery standards per grade level) as measured by district assessment.

Implementation Plan				
Activity	**Timeline**	**Person(s) Responsible**	**Monitoring & Evaluation**	**Evaluation Instrument**
Teach students how to apply digital tools to gather, evaluate and use information.	2012, Ongoing	Teacher librarians, classroom teachers	Curriculum Groups, Grade Level Leads and Site Administrators will track the implementation of all activities, reporting progress annually at district meetings. Modifications to district activities will be made as needed.	Grade level meeting notes, teacher observation, student data from assessments and other surveys, evidence of lesson plans that incorporate technology standards.
Embed technology skills into the curriculum and develop assignments where students can demonstrate mastery of both the curriculum and technology skills.	2012, Ongoing	Classroom teachers, teacher librarians		
Collect examples of best practices to provide resources for teachers.	2012, Ongoing	DTAC, District Grade Level, Middle School Department Groups, Site Grade Level Groups		

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

Teachers will participate in staff development at all sites covering these topics. Continuing staff development will cover changes and updates to these topics. They will learn how to teach students about the need to cite ALL sources, including images, written information and music used for creating presentations. Teachers learn to encourage students to use Creative Commons and other copyright-free materials. Teachers will also learn and teach students the difference between using online sources for an in-school presentation and posting that presentation online. Students will understand the need to cite sources and quote or paraphrase information they use. Each school will develop, incorporate and consistently enforce a plagiarism discipline policy.

Goal 3f.1: We will increase student, teacher and administrator awareness of safe, secure, legal and ethical use of the Internet and other forms of electronic communication through a Digital Citizenship program of instruction for students. Students will be able to distinguish lawful from unlawful uses of copyrighted works, including the following topics: the concept and purpose of both copyright and fair use; distinguishing lawful from unlawful downloading and peer-to-peer file sharing; and avoiding plagiarism. [AB 307]

Implementation Plan				
Activity	**Timeline**	**Person(s) Responsible**	**Monitoring & Evaluation**	**Evaluation Instrument**
A fall staff meeting presentation will cover an overview of the above topics. Staff will be offered a handout they can use with students outlining the laws and rules of copyright, ethical use and plagiarism.	Fall 2012 and Ongoing	Teacher librarians and/or DTAC members will provide the staff development. Site Administrators, Director of Technology	Curriculum Groups, Grade Level Leads and Site Administrators will track the implementation of all activities, reporting progress annually at district meetings. Modifications to district activities will be made as needed.	Staff Meeting Agendas and Notes
A spring staff meeting presentation will check in with teachers and survey their use of the above information in their teaching.	Spring 2013 and Ongoing	District Technology Committee, Site Administrators, Director of Technology		Staff Meeting Agendas and Notes

In the spring, teachers will report on any projects or lessons they taught that required students to cite their sources. Teachers will also report on how they taught their students to avoid plagiarism, how they checked for plagiarism, and any incidents were handled.	Spring 2013 and Ongoing	District Technology Committee, Site Administrators, Director of Technology		Staff Meeting Agendas and Notes
Teacher librarians at the elementary level will provide one lesson for each grade level addressing digital ownership and plagiarism.	2013 - 2015	Elementary Librarians, Director of Technology		Lesson Plans
The middle school teacher librarian, while collaborating with teachers, will provide one lesson for sixth-grade core classes addressing digital ownership and plagiarism.	2013 - 2015	Middle School Librarian, Director of Technology		Class Lesson Plans

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)

Internet sites are filtered to prevent access to You Tube, MySpace, Facebook and sites deemed inappropriate by the Mill Valley School District.

Students use online communication technology extensively outside of the school day. However, it is seldom used during the school day with the exception of emailing homework and database articles to themselves from school. Students know their network accounts are not private. Much of what we teach students about cybersafety is informal, which contributes to the hit-and-miss nature of Internet safety education. Our students need to be able to collaborate and experiment in a safe and protected online environment in order to develop the 21 st century skills they will need to function as global citizens in the workplace and at school.

Some of the cybersafety measures currently used in the district are:

- All schools provide internet access that filters content to prevent inappropriate material from being viewed
- Parent education on cybersafety is provided at some schools on Back To School Night
- Students have access to a laptop cart and individual logins. Students do not have email accounts unless it is a home account
- Students are taught not to divulge personal information online.
- Students are taught about cyberbullying and how to protect themselves.
- Educational resources from Common Sense Media are used.
- Librarians and teachers screen websites for content and instruct students regarding website safety
- Teacher Librarian provides lessons for students on website evaluation
- Cyber safety posters are displayed in the library
- Students are instructed on protecting their district provided accounts and respecting the privacy of each other.
- Students' online work is monitored closely in the classroom and library
- Students who use file-sharing (such as Google docs) are taught how to grant specific permission for others to view their files.

Goal 3g.1: We will educate all students, teachers and administrators on how to avoid dangerous, inappropriate, or unlawful online behavior, as evidenced by the establishment of a Digital Citizenship Task Force and all teachers' use of District Digital Citizenship standards and curriculum.

Implementation Plan				
Activity	**Timeline**	**Person(s) Responsible**	**Monitoring & Evaluation**	**Evaluation Instrument**
Develop a District-Wide Technology Use student contract.	2012-2013	DTAC, Site Administration	Curriculum Groups, Grade Level Leads and Site Administrators will track the implementation of all activities, reporting progress annually at district meetings. Modifications to district activities will be made as needed.	Completion of Technology Use student contract
Refine and adopt K-8 Digital Citizenship Standards.	2013-2014	Director of Technology, DTAC, Superintendent, Librarians		Board minutes where adoption was approved
Develop and adopt a K-8 digital citizenship curriculum that is integrated with character education themes.	2013-2015	Site Administration, Superintendent, Librarians, Safe School Planning, DTAC		Teacher lesson plans, meeting notes
Establish a representative digital citizenship task force of Mill Valley staff, parents and students.	2014-2015	Superintendent, Director of Technology, Site Administration		Meeting Logs
Develop a parent education plan	2014-15	Digital Citizenship Task Force, IT, Superintendent		Parent Education Plan, meeting notes
Review standardized District-Wide Acceptable Use Agreement and distribute at the start of each school year.	2012, Ongoing	Superintendent, IT, School Board, Site Administration		AUP
Communicate specific board policies (5131.2) on responsible and safe use of technology to students, parents, and staff.	2012, Ongoing	Superintendent, Principals, School Board		Newsletters, parent education publicity, teacher lesson plans, board minutes

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

Our long-term goal is to provide equitable access to all technology across the district. While all students in MVSD have access to technology at their schools, whether in the form of tablets, laptops or desktop computers and peripheral devices. Each school does not have the same equipment or number of devices which stems from the funding sources for technology. Technology in the district is funded by either the district, the educational foundation (Kiddo!), or by each school's PTA/PTSA. Each school has both different funding priorities and amounts donated per student. Generous funding does provide teachers access to various equipment. Training and support leads to varying levels of implementation in classrooms.

Inequity to access also comes from a lack of staffing in school libraries with computers at each school. The middle school's part-time library aide supervises at lunch and after school, allowing students access to 16 desktop computers with which to complete school work. However, the elementary schools are currently unable to offer this after-hours access.

Access to technology resources will be prioritized for students in special needs programs such as Special Education, English Language Learners, and GATE.

The district will try to address current funding imbalances to ensure equitable access for all students by developing a plan with the funding stakeholders.

A specific goal for device access (tablet, laptop, desktop) would be a 3:1 ratio at the third, fourth, and fifth grade levels, and a 1:1 ratio at the middle school level.

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.

Attendance and grade reporting is taken through Aeries. Middle School and some elementary teachers use Easy Grade Pro as a grade book and then enter the grades into Aeries later.

Goal 3i.1: Teachers will use data driven methods to deliver differentiated instruction

Objective 3i.1.1: By June 2015, 100% of all teachers will access and utilize Aeries to monitor student progress and drive instructional practice.

Benchmarks:

- Year 1: By June 2013, 70% of all teachers will access and utilize Aeries to monitor student progress and drive instructional practice.
- Year 2: By June 2014, 85% of all teachers will access and utilize Aeries to monitor student progress and drive instructional practice.
- Year 3: By June 2015, 100% of all teachers will access and utilize Aeries to monitor student progress and drive instructional practice.

Implementation Plan				
Activity	**Timeline**	**Person(s) Responsible**	**Monitoring & Evaluation**	**Evaluation Instrument**
Explore a variety of effective student assessment tools to differentiate classroom instruction.	2012-13	DTAC, Director of Technology, Superintendent	District administrators and school site administrators will track the development and implementation of all activities and accomplishments through monthly progress reports at regular district/ site administration meetings. Modifications to our district activities will be made as needed in order to insure that we meet or exceed measurable objectives	Meeting Notes
Continue to utilize DataDirector for data analysis while exploring other student assessment tool	2012-13	Teachers, Administrators, District staff		DataDirector usage reports
Standardize procedures for input / output of student responses, assessment data	2012, Ongoing	District Administrative Council		Administrator and teacher training materials, sign-in sheets, log-ins to site, usage records, DataDirector Custom Reports.
Provide professional development for Administrators.	2012, Ongoing	County Office of Ed		
Provide professional development for teachers.	2012, Ongoing	County Office of Ed, Principal		

Provide professional development in the use of standards-aligned test banks.	2012, Ongoing	County Office of Ed, Principal		
Ensure that administrators have the fundamental skills to interpret data at the site level.	2012, Ongoing	Superintendent		Administrator and teacher training materials, sign-in sheets, log-ins to site, usage records
Develop goal-monitoring reports for administrators and teachers	2012, Ongoing	IT/Principal		
Implement District Database Specialist position.	2012, Ongoing	School Board, District Administrative Council		
Expand the types of data collected and used for school improvement efforts	2012, Ongoing	IT, District Administrative Council		
Teach staff to use data thoughtfully. Sustain a culture of continuous improvement through data driven decision-making.	2012, Ongoing	Principals, IT, Teacher Leaders		
Gather details on the process in which teachers are differentiating instruction in response to students who need additional support.	2012, Ongoing	Teachers, resource, RAMP		

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 are comfortable using e-mail as a communication tool both between colleagues at school and between teachers and parents. They also use many other forms of electronic communication. Parents without computer/internet access can sign-up to receive paper copies of the information.

Examples of two-way communication between home and school:

- The Cisco IP Phone System is available school- and district-wide and provides parents with voice mail communication.
- Voice messaging is accessed through staff email accounts as well.
- MVSD makes use of *School Messenger*, (part of Cisco Unified Communications), to push out timely and emergency alerts to parents.
- All staff members are provided with district email accounts for access 24/7 from school and at home.
- All certificated staff have laptops to communicate electronically from school or home.
- The District website provides information to parents including a district calendar.
- School principals send a weekly message to parents with upcoming events.
- School websites vary within the district. Some of the elementary sites are created and maintained by parent volunteers. The web sites have school-wide information such as school reminders, principal messages, and provide parents the ability to order lunches online.
- All teachers have access to SchoolWires for their class websites. Many teachers use their websites to post homework and student resources. Some elementary teachers maintain class web sites that may include the weekly newsletter, blog, calendar, photos, homework assignments and student work.
- Some elementary teachers use iWeb to create class sites.
- School web sites include links to teacher sites, school calendars and daily bulletins.
- Some teachers in both elementary and middle schools use a class blog.
- The library link on school websites provides parents and students with important learning tools such as subscription-based encyclopedias, online databases and access to the library catalog
- Some teachers provide parents with electronic versions of class newsletters via email
- At the middle school, parents can subscribe to online notices through Constant Contact, an email marketing tool.
- At some schools, the PTA posts its own newsletter online and sends communications to parents on a regular basis.
- PTA calendars are posted on school sites.
- Parent feedback is collected via email, voice mail, survey data, and web-based services.

Goal 3j.1: All teachers and administrators will make use of technology tools to enhance and improve communication between home and school using voice mail, email and web-based services.

Objective 3j.1.1: By June 2015, 100% of teachers and administrators will communicate with parents using effective email skills (ie. groups, attachments) and web-based services (ie. parent sign-ups, blogs).

Benchmarks:

- Year 1: By June 2013, 90% of teachers and administrators will communicate with parents using effective email skills (i.e. groups, attachments) and web-based services (i.e. parent sign-ups, blogs).
- Year 2: By June 2014, 95% of teachers and administrators will communicate with parents using effective email skills (i.e. groups, attachments) and web-based services (i.e. parent sign-ups, blogs).
- Year 3: By June 2015, 100% of teachers and administrators will communicate with parents using effective email skills (i.e. groups, attachments) and web-based services (i.e. parent sign-ups, blogs).

Implementation Plan				
Activity	**Timeline**	**Person(s) Responsible**	**Monitoring & Evaluation**	**Evaluation Instrument**
Collect email addresses for all parents of students.	2012, Ongoing	Exec Asst. Student Learning and District Communications	District administrators and school site administrators will track the development and implementation of all activities and accomplishments through monthly progress reports at regular district/ site administration meetings. Modifications to our district activities will be made as needed in order to insure that we meet or exceed measurable objectives	Web, email and RSS feed logs, Number of logins and visits to teacher and administrator websites, number of parents subscribing to RSS feeds, volume of email traffic to parent listservs. Revive annual parent and staff surveys of communication use.
Optimize parent contact database, by training parents and staff on how to keep email and emergency contacts up-to-date.	2012, Ongoing	Exec Asst. Student Learning and District Communications		
Implement Administrative emergency messaging and general communications systems for contact with staff, parents, and other stakeholders via VOIP Software.	2012, Ongoing	Exec Asst. Student Learning and District Communications		
Provide essential communications to families without access to the internet and to non-English speaking families.	2012, Ongoing	AC		
Train teachers on use of bilingual tools.	2012-13	ELL staff		

Train teachers and administrators about email and web publishing, with focus on tools and policies (appropriate content, privacy, safety).	2012, Ongoing	MVSD Teachers, IT, District Technology Committee		
Train and coordinate school and District office staff or parent volunteer to maintain public and private event calendars.	2012, Ongoing	MVSD Teachers, IT, District Technology Committee		
Develop district-wide standards for electronic home-school communication.	2013-2015	IT, AC, District Technology Committee		

Objective 3j.1.2: By June 2015, 100% of teachers and administrators will communicate with parents by updating their website a minimum of 4 times per year.

Benchmarks:

- Year 1: By June 2013, 100% of teachers and administrators will communicate with parents by updating their website a minimum of 2 times per year.
- Year 2: By June 2014, 100% of teachers and administrators will communicate with parents by updating their website a minimum of 3 times per year.
- Year 3: By June 2015, 100% of teachers and administrators will communicate with parents by updating their website a minimum of 4 times per year.

Implementation Plan				
Activity	**Timeline**	**Person(s) Responsible**	**Monitoring & Evaluation**	**Evaluation Instrument**
Provide staff support and training for current website management	2013-2015	District Technology Specialist & Site Technology Specialists	Use sign-in sheets, staff feedback, self-report survey	Trainer logs, trainer evaluations
Provide staff ongoing support for current website management	2013-2015	District Technology Specialist & Site Technology Specialists	Site Technology Specialists' records of support, self-report survey	Support logs, and support evaluations

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 degree to which the technology is integrated into the learning environment and supports classroom and school management will be measured using indicators such as student-computer ratios, student and teacher surveys (CBEDS data and EDTECHPROFILE), and classroom observations of student engagement with technology resources.

Teacher Librarians, Department chair and Grade Level teacher groups are the primary personnel responsible for the delivery of the curriculum that addresses the common Core State Standards (CCSS) throughout the District. As indicated in the Monitoring columns of the goal tables in Sections 3d-3j, these groups together with the District Technology Committee (DTAC) and Site Administrators will track the development and implementation of curriculum activities and accomplishments periodically, and report progress at regular District and Site administration meetings. Modifications to Plan activities will be made as needed in order to ensure that the District meets or exceeds measurable objectives.

Teachers will complete the EdTech Profile assessment of technology proficiencies annually. Students in selected grades will participate in an annual student survey of technology activities. Annually, the Department chair and Grade Level Groups and District Technology Advisory Committee will review synthesized and analyzed data and make adjustments to Site and District Technology Plans, as well as provide data analysis for the Superintendent and the Board of Trustees.

4. Professional Development

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

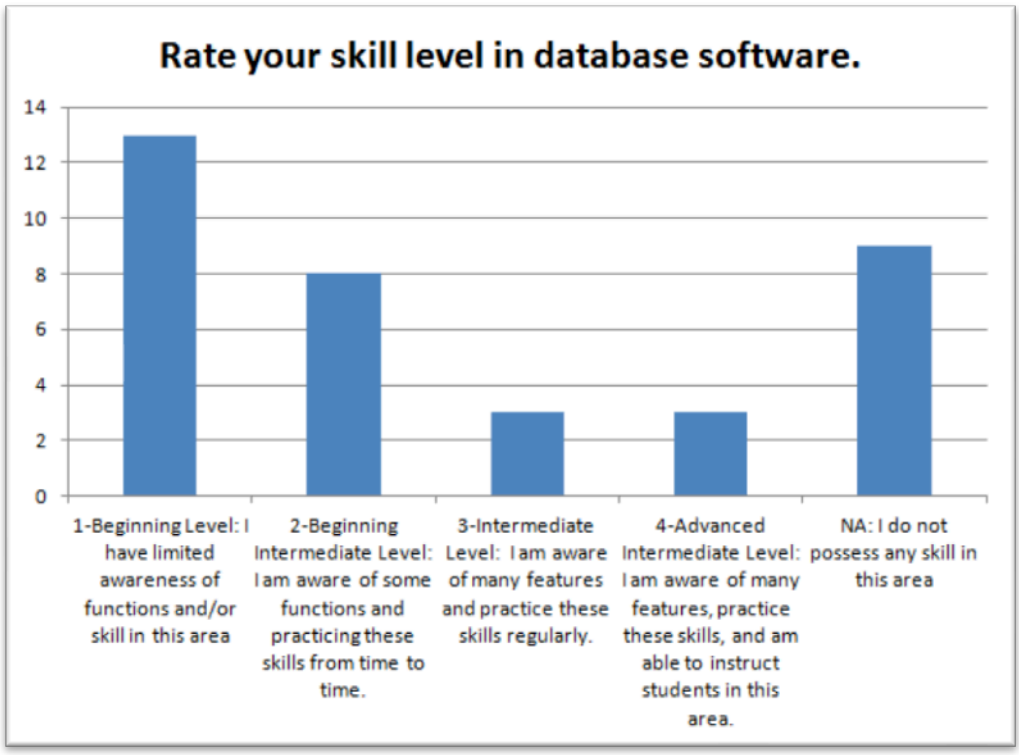
The results of the EdTech Profile Lite indicate a baseline from which Mill Valley School District plans to build technology proficiency and frequency of classroom integration among teachers and administrators. The following table lists the 21 questions in "EdTech Profile Lite" survey and the percent of respondents that rated themselves as advanced intermediates or advanced users.

In the area of teachers' and administrators' technology skill level, respondents rated themselves lowest in the following areas based on the combined total percentage of L4 and L5: database software (8%), spreadsheet software (22%), Internet safety (33%), ethical use of technology (35%), and presentation software (45%).

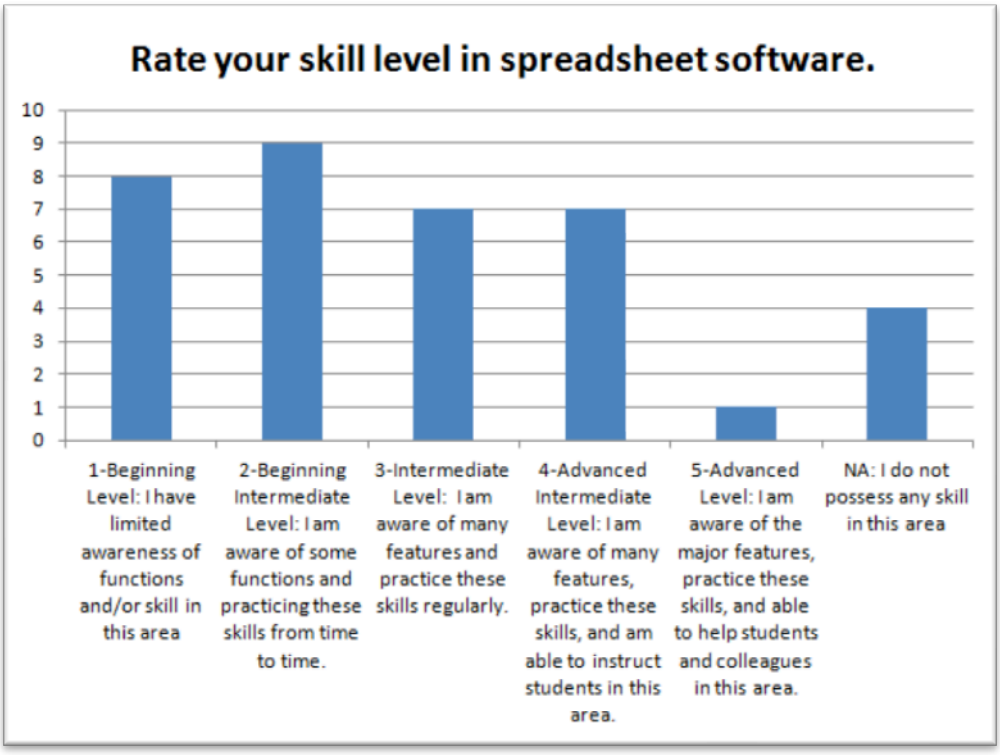
Teachers' and Administrators' Current Technology Skill Levels	NA	L1 Beginning Level	L2 Beginning Inter-mediate Level	L3 Inter-mediate Level	L4- Advanced Inter-mediate	L5- Advanced	Total L4 & L5	PD Related to Section
Question 1: Rate your skill level in Internet functions.	0%	4%	8%	29%	40%	19%	59%	3e
Question 2: Rate your skill level in general computer knowledge and functions.	0%	8%	12%	19%	37%	25%	62%	3e
Question 3: Rate your skill level in Information Literacy.	0%	4%	13%	23%	40%	19%	59%	3e
Question 4: Rate your skill level in Internet Safety.	2%	19%	19%	27%	27%	6%	33%	3g
Question 5: Rate your skill level in Email functions.	0%	6%	2%	33%	42%	17%	59%	3e
Question 6: Rate your skill level in Word Processing.	0%	0%	8%	31%	33%	29%	62%	3e
Question 7: Rate your skill level in presentation software.	4%	19%	17%	15%	33%	12%	45%	3d
Question 8: Rate your skill level in spreadsheet software.	10%	22%	27%	20%	18%	4%	22%	3i
Question 9: Rate your skill level in database software.	4%	15%	25%	21%	29%	6%	35%	3i
Question 10: Rate your understanding of ethical use of technology.	10%	14%	13%	24%	19%	21%	40%	3f

The following charts show the results of staff self-evaluations for proficiency with:

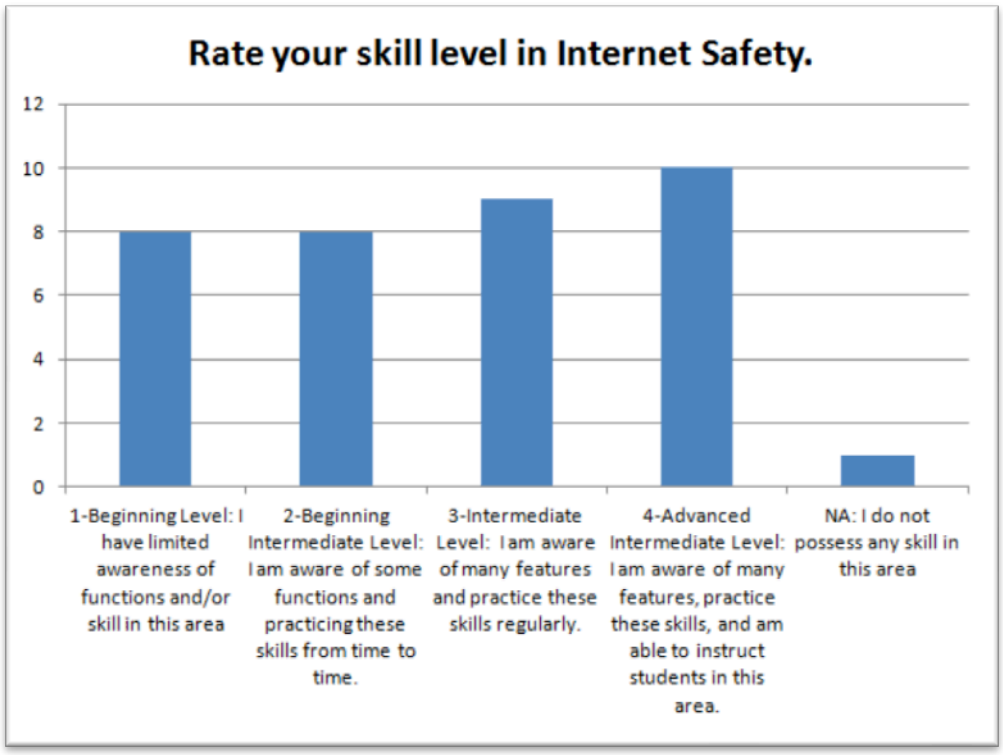
Database Software



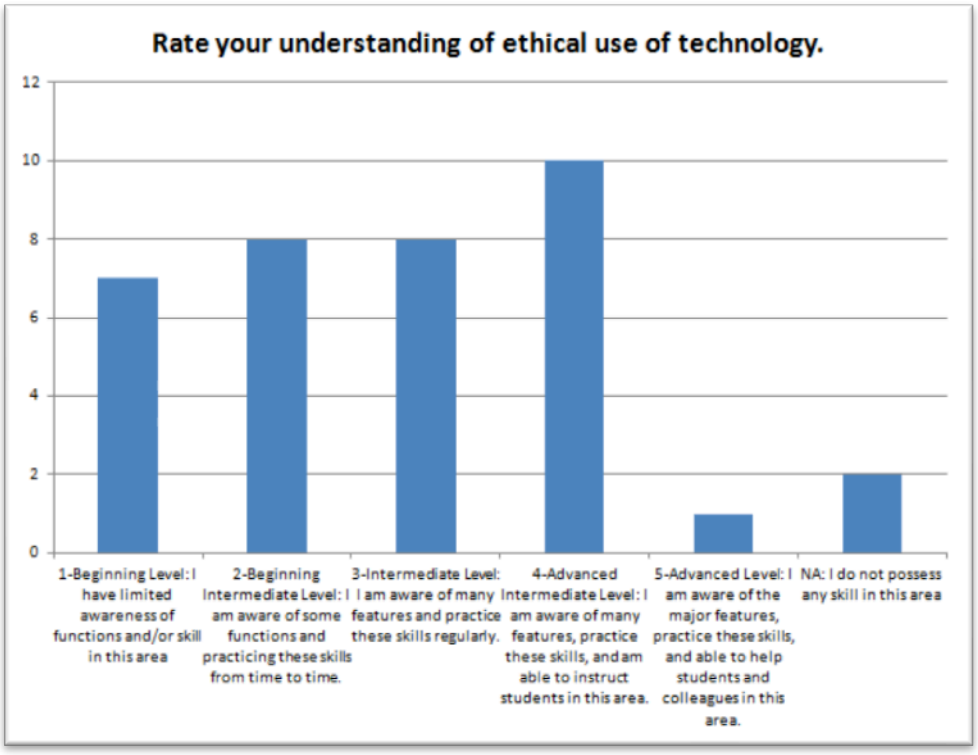
Spreadsheet Software



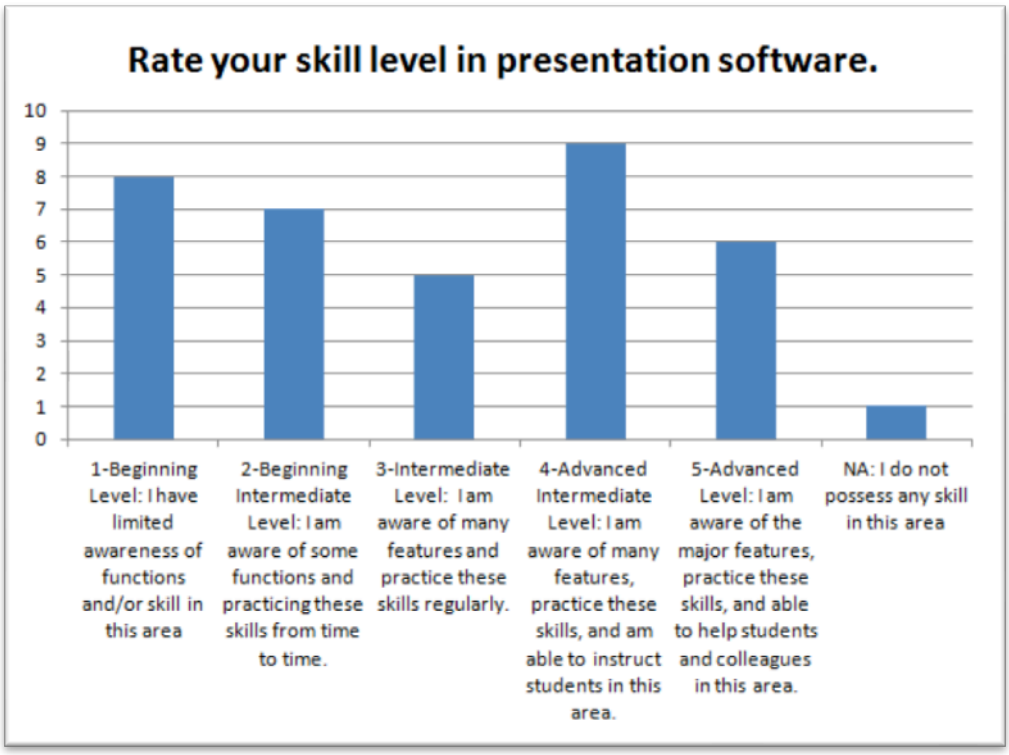
Internet Safety



Ethical Use of Technology



Presentation Software



Technology professional development must focus on helping teachers use technology in the classroom, based on the survey data. Less than 40% of respondents rated themselves as advanced intermediates or advanced users for every question in this category.

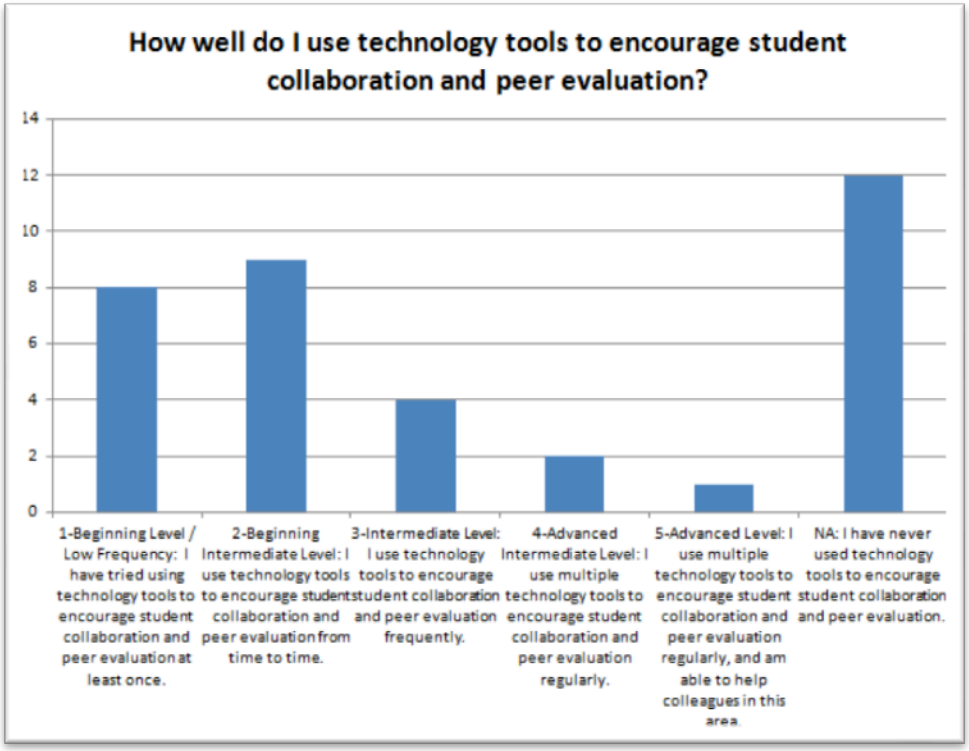
In ascending order in the area using technology in the classroom, respondents rated themselves lowest in being able to**:** use technology tools to encourage student collaboration and peer evaluation (6%), use technology tools for student record-keeping and assessment (26%), integrate technology tools when teaching (30%), use multimedia resources (31%), use a classroom webpage (38%), and use technology to improve two-way communication between home and school (39%).

These results indicate that professional development in the use of technology in the classroom would be beneficial. This plan will focus on professional development to help teachers enhance their technology proficiency and basic computer skills and increase their proficiency in integrating technology into the curriculum. Although student record-keeping proficiency was rated very low, it will not be emphasized in this plan due to the possibility that the data analysis and student assessment tools may be changing. Goal 4b.2 is directed at increasing the use of web-based communication tools to raise proficiency levels and frequency of use to intermediate to advanced levels.

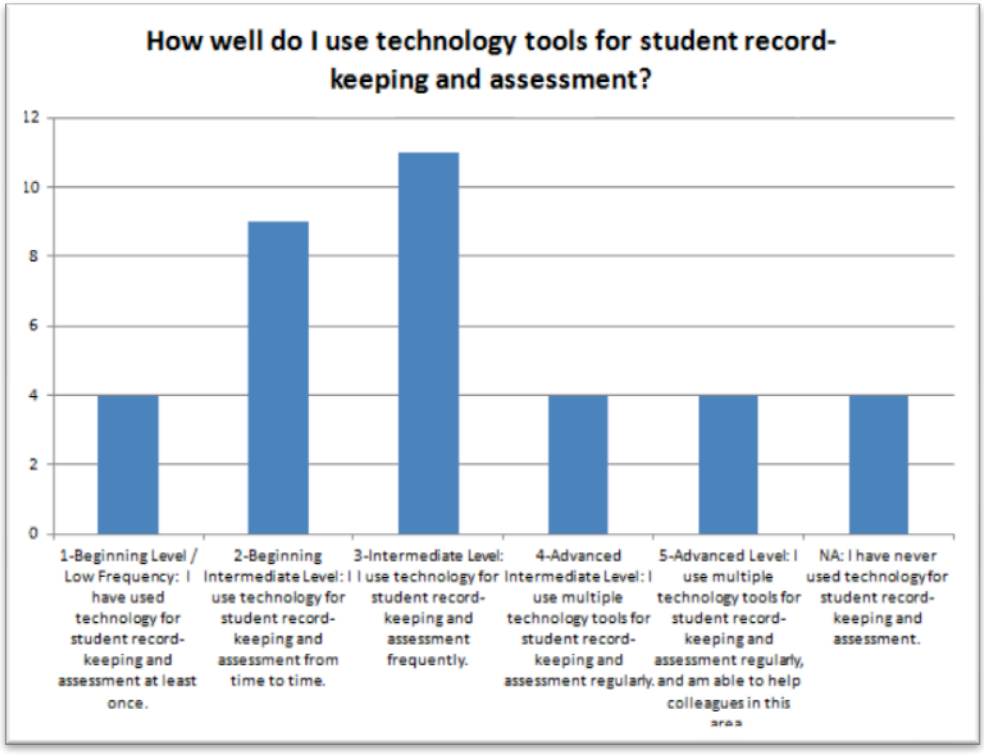
Using Technology in the Classroom	NA	L1 Beginning Level	L2 Beginning Inter-mediate Level	L3 Inter-mediate Level	L4- Advanced Inter-mediate	L5- Advanced	Total L4 & L5	PD Related to Section
Question 1: How well do I integrate technology tools when I teach?	2%	4%	29%	35%	13%	17%	30%	3d
Question 2: How well do I use multimedia resources?	2%	17%	33%	17%	23%	8%	31%	3d
Question 3: How well do I use technology tools to encourage student collaboration and peer evaluation?	31%	19%	25%	19%	4%	2%	6%	3d
Question 4: How well do I use a classroom web page?	17%	15%	17%	12%	13%	25%	38%	3j
Question 5: How well do I use technology to improve two-way communication between home and school?	2%	6%	10%	44%	27%	12%	39%	3j
Question 6: How well do I use technology tools for student record-keeping and assessment?	10%	8%	27%	29%	13%	23%	26%	3i

The following charts show the results of staff evaluations for:

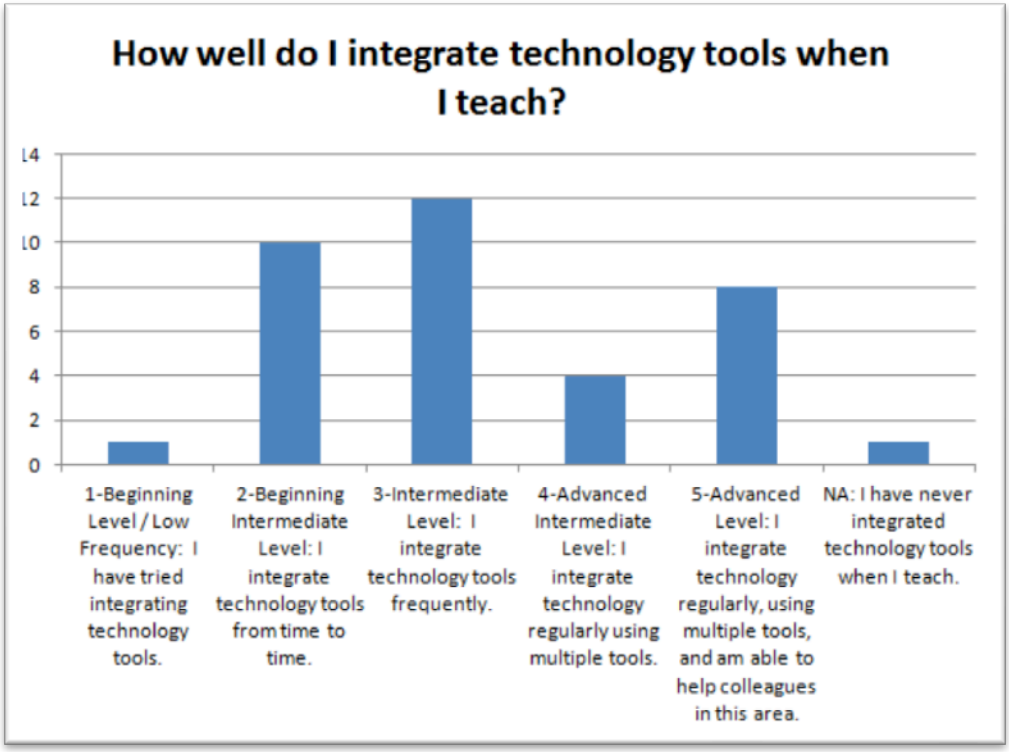
Using Technology Tools to Encourage Student Collaboration



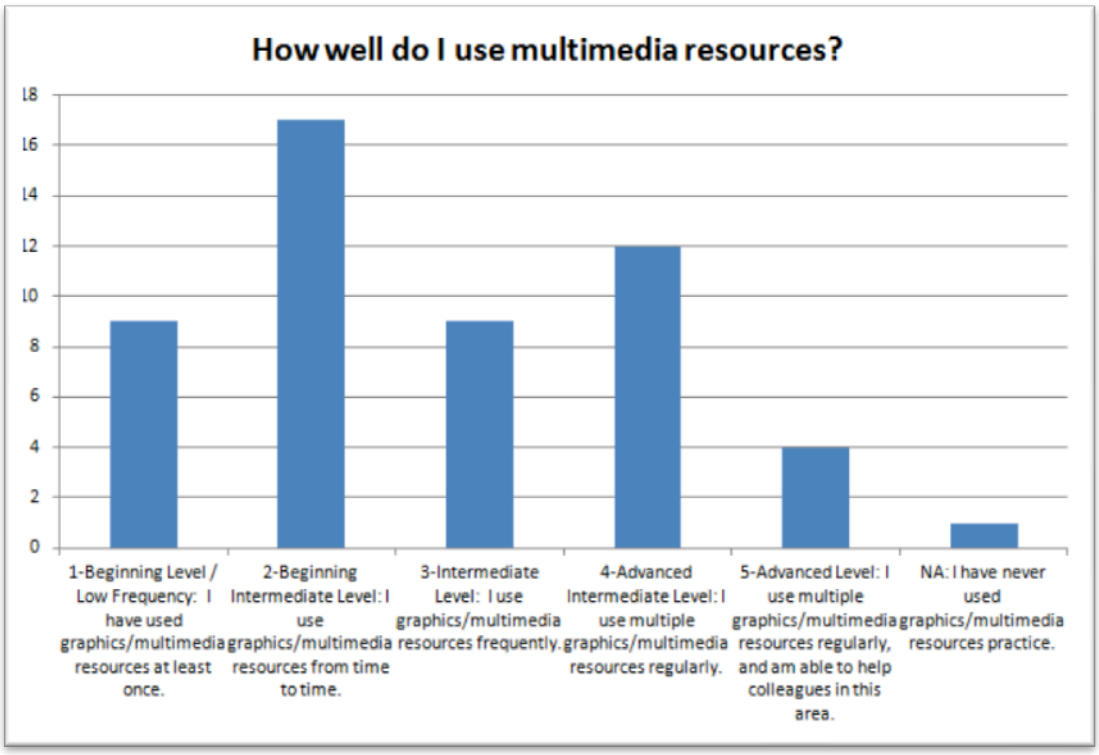
Using technology Tools for Student Record-Keeping and Assessment



Integrating Technology Tools When Teaching



Using Multimedia Resources



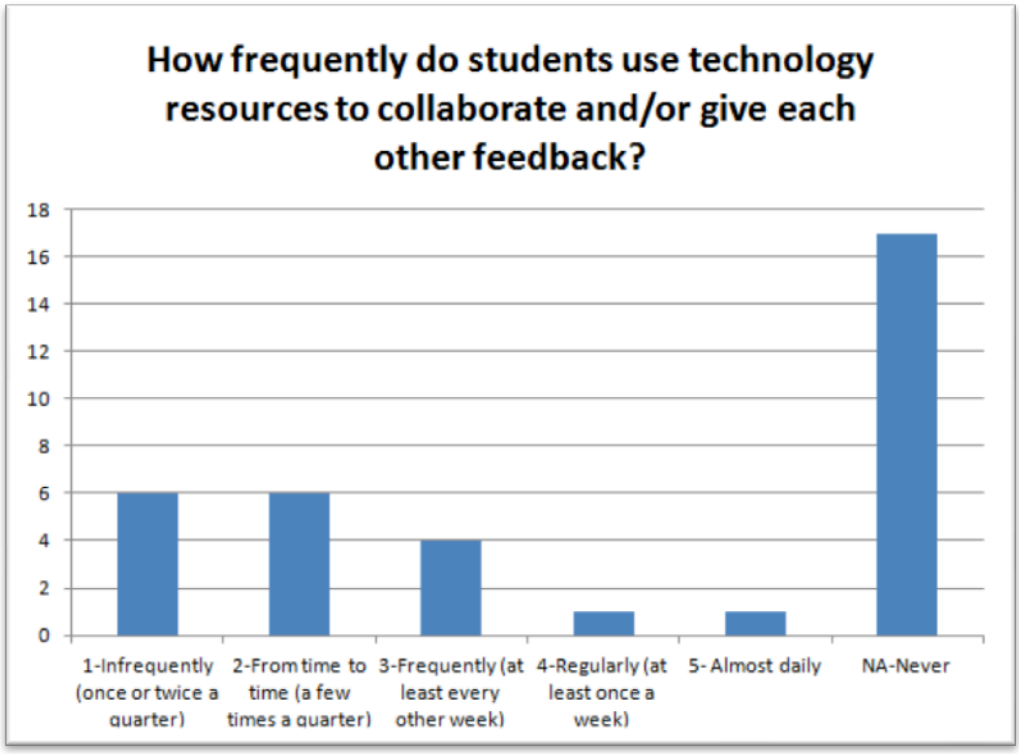
Similarly, few respondents rated themselves as above average or excellent when it came to using technology to support student learning. In ascending order, teachers rated themselves lowest in how frequently students use technology resources: to collaborate and/or give each other feedback (6%), to achieve instructional goals (18%). 20% rated their students' information literacy skills as intermediate or below.

Using Technology to Support Student Learning	NA	L1 Beginning Level	L2 Beginning Inter-mediate Level	L3 Inter-mediate Level	L4- Advanced Inter-mediate	L5- Advanced	Total L4 & L5	PD Related to Section
Question 1: How frequently are technology tools integrated into student learning activities?	3%	8%	32%	29%	15%	13%	28%	3d
Question 2: How frequently do students use technology resources to achieve instructional goals?	10%	11%	29%	34%	10%	6%	16%	3d
Question 3: How frequently do students use technology resources to collaborate	31%	26%	27%	8%	3%	5%	8%	3d

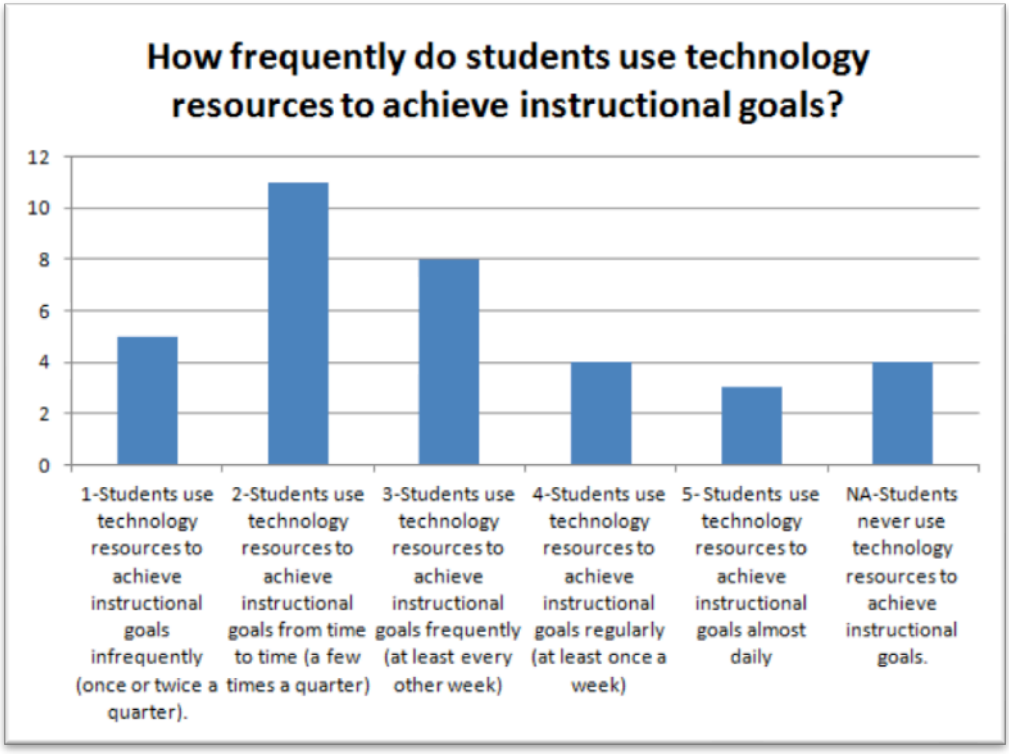
and/or give each other feedback?								
Question 4: Rate your students' information literacy skills.	16%	10%	2%	44%	23%	6%	29%	3e
Question 5: Rate your students' access to computer-based and online technology.	11%	8%	6%	34%	26%	15%	41%	3d

The following charts show the results of staff evaluations for:

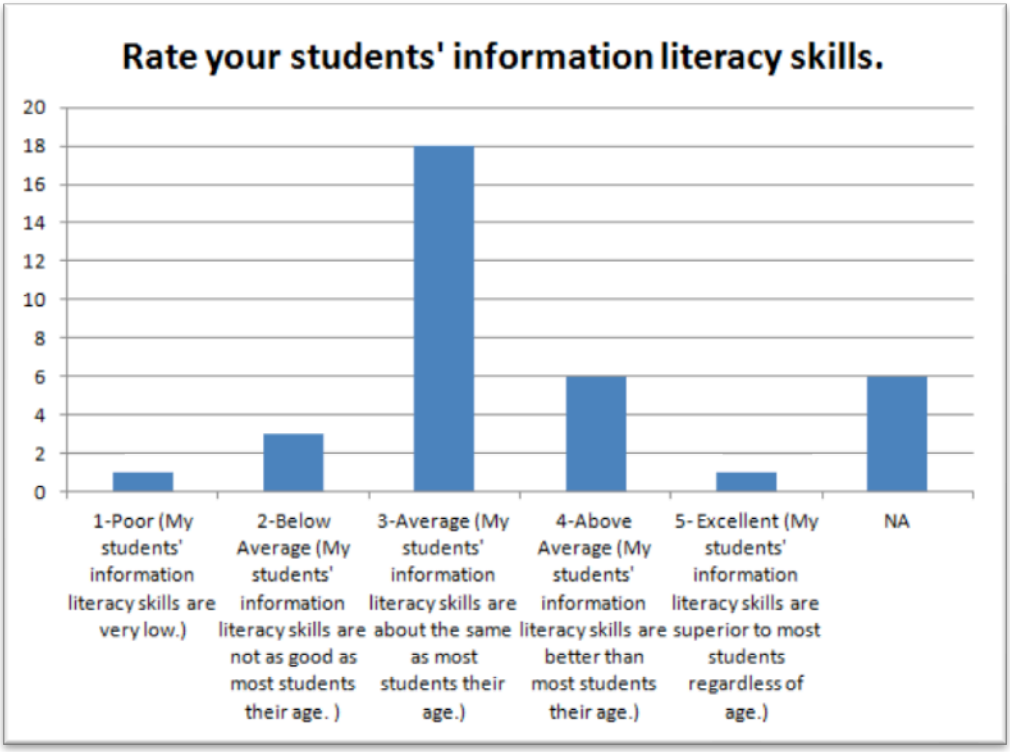
Frequency: Student Collaboration and/or Feedback



Frequency: Students Use of Technology to Achieve Instructional Goals



Students' Information Literacy Skills



4b. List of clear goals, measurable objectives, annual benchmarks, and an implementation plan for providing professional development opportunities based on your district needs assessment data (4a) and the Curriculum Component objectives (sections 3d through 3j) of the plan.

Goal 4b.1: All teachers will effectively and consistently integrate technology into all curriculum areas.

Objective 4b.1.1: By June 2015, 100% of teachers will show an increase in their technology proficiencies and basic computer skills and demonstrate increased proficiency in integrating technology into the curriculum.

Benchmarks:

- Year 1: By June 2013, 60% of teachers will show an increase in their technology proficiencies and basic computer skills and demonstrate increased proficiency in integrating technology into the curriculum.
- Year 2: By June 2014, 80% of teachers will show an increase in their technology proficiencies and basic computer skills and demonstrate increased proficiency in integrating technology into the curriculum.
- Year 3: By June 2015, 100% of teachers will show an increase in their technology proficiencies and basic computer skills and demonstrate increased proficiency in integrating technology into the curriculum.

Implementation Plan				
Activity	**Timeline**	**Person(s) Responsible**	**Monitoring & Evaluation**	**Evaluation Instrument**
Introduce teachers to ISTE NETS for Students and Teachers.	2012, Ongoing	Teacher Librarians, Teachers	District administrators and school site administrators will track the development and implementation of all activities and accomplishments through monthly progress reports at regular district/ site administration meetings. Modifications to our district activities will be made as needed in order to insure that we meet or exceed measurable objectives	training materials, sign-in sheets and evaluations, examples of technology enriched lesson plans, examples of student work
Survey teachers on technology professional development needs. Based on survey results, offer professional development opportunities for teachers to increase basic skills. Schedule trainings in a variety of locations and formats to address educator needs.	2012, Ongoing	Teacher Librarians, Teachers		Annual administration of EdTech Profile and/or District survey data, Analysis of aggregate survey data. Increased proficiency in basic computer skills and curriculum integration, training materials, sign-in sheets and evaluations, examples of

Offer opportunities for training with new district technologies so teachers will be exposed to emerging technologies to implement into classroom instruction.	2012, Ongoing	DATC, Administrators Superintendent	technology enriched lesson plans, examples of student work, school websites
Develop several models of training including peer-to-peer, small group, in-house experts, just-in-time learning, webinars, video streaming, external trainers etc	2012, Ongoing	DATC, Administrators Superintendent	
Develop in-house experts who are willing to train other teachers in specific areas.	2012, Ongoing	DATC, Administrators Superintendent	
Develop protocols for peer coaching and compensation at each site.	2012, Ongoing	Administrators Superintendent	
Explore funding opportunities to enroll a team of teachers to attend at least one major multi-day ed-tech conference (for example: CUE, CLMS, NECC) per year. Teachers would share out information.	2012, Ongoing	Administrators Superintendent Teacher Leaders	
Promote no-cost/low-cost professional development opportunities offered at the county office and through CTAP.	2012, Ongoing	Administrators Superintendent CTAP	
Provide teachers with training in the areas of cyberethics (such as copyright, and privacy) and cybersafety as well as in "netiquette" considerations when using email and web publishing.	2012, Ongoing	Teacher Librarians District Technology Committee	

Publish and disseminate a calendar of trainings available, including in-house workshops, guest presenters, summer trainings, conferences, county trainings, CTAP, and videoconferencing	2012, Ongoing	Superintendent, Director of Technology, Teacher Librarians		
Use social networking sites to establish database of educational web sites and applications to be shared and accessed by district teachers, tagged as to grade level and curriculum area.	2013, Ongoing	Director of Technology Administrators Teacher Leaders		
Offer a teacher cyberfair/ technology fair annually where teachers can share examples of technology enriched lesson plans and methods of integration.	2013, Ongoing	Administrators Teachers		
Collaborate at grade level and subject area meetings on development of technology-enriched curricula.	2012, Ongoing	Administrators Teachers		
Administer EdTech Profile teacher assessments on an annual basis to track progress.	2012, Annually	Teachers, Administrators		
District will employ a Technology Integration Classroom Coach	2014-15, Ongoing	DATC, Administrators Superintendent		

Goal 4b.2: Teachers will know how to make use of web-based communication tools (web sites, wikis, blogs, listservs) to improve communication with other staff and with students and parents.

Objective 4b.2.1: By June 2012, 60% of teachers will show an increase in their technology proficiencies using web-based communication.

Benchmarks:

- Year 1: By June 2013, 70% of classroom teachers will demonstrate increased proficiency using web-based communication.

- Year 2: By June 2014, 85% of classroom teachers will demonstrate increased proficiency using web-based communication.
- Year 3: By June 2015, 100% of classroom teachers will demonstrate increased proficiency using web-based communication.

Implementation Plan				
Activity	**Timeline**	**Person(s) Responsible**	**Monitoring & Evaluation**	**Evaluation Instrument**
Develop and deliver or inform staff about web-based communication trainings designed to meet the varying needs and abilities of teachers.	2012, Ongoing	CTAP, MCOE, Professional Organizations, IT Staff, Technology Integration Specialists	District administrators and school site administrators will track the development and implementation of all activities and accomplishments through monthly progress reports at regular district/ site administration meetings. Modifications to our district activities will be made as needed in order to insure that we meet or exceed measurable objectives	Annual administration of EdTech Profile and/or District survey data, Analysis of aggregate survey data. Increased proficiency in basic computer skills and curriculum integration, training materials, sign-in sheets and evaluations, examples of technology enriched lesson plans, examples of student work, school websites
Teachers will create and maintain class web pages to share information and facilitate communication with parents.	2012, Ongoing	Administrators, Teachers, Teacher Librarians		
Teachers will use a variety of technologies to communicate with parents.	2012, Ongoing	Classroom Teachers, Teacher Librarians		
The English Language Learning staff will explore technologies that provide translations for school communications.	2013, Ongoing	ELL Coordinator, Technology Integration Specialists		
The English Language Learning staff and Technology Integration Specialists will provide assistance to teachers when communicating with families who cannot communicate in English.	2014, Ongoing	ELL Coordinator Technology Integration Specialists		
Collaborate at grade level and subject area meetings on development of web-based communication ideas.	Ongoing	Site Administrators, Teachers		

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.

Administrators, teachers and administrative staff will include a technology goal in their list of annual goals. Site administrators will evaluate and monitor progress.

Sign-in sheets, workshop evaluations and examples of teacher uses of technology in curriculum will be used by the District Technology Advisory Committee (DTAC) to track professional development in the district and to monitor how well the training is implemented into daily instruction.

Teachers will complete the EdTech Profile assessment of technology proficiencies annually.

As indicated in the Monitoring column of the goal tables in Section 4b, the site Technology Specialists and school Site Administrators will track the development and implementation of all professional development activities and accomplishments monthly and report progress at regular District and Site administration and technology meetings.

Modifications to technology plan activities will be made as needed in order to insure that the District meets or exceeds measurable objectives.

Annually, the District Technology Advisory Committee will review summary data and make adjustments to Single Plans for Student Achievement, and District Technology Plans, as well as provide data analysis for the Superintendent and the Board of Trustees.

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:

- Each site, depending on size of the facility has between 7 and 10 (or more) printers.
- Each classroom has, at minimum, 2 computer workstations. Each school also has, at minimum, 2 laptops carts, one with a capacity of 20 laptops and the other with a capacity of 30. In many cases schools have added 20 and 30 laptops carts in addition to that standard.
- Schools are also implementing iPads in various ways at each school.
- Each teacher at a school site that is .5 FTE and above, currently have their own district issued laptop.
- MVSD utilizes TrackIT! - a product of Numara Software Publishers. The software suite allows users to enter work orders and check in on their status. TrackIT is also an asset management solution. It performs automatic inventory of all MVSD computers, detects hardware specifications and exports the data for analysis in spreadsheet form.

Existing Internet Access:

- Each school has an MDF or server room containing an AT&T fiber optic connection to the MVSD WAN as well as the Internet. Each MDF and IDF contain layer 3 Cisco POE switches. Each school has its own file/print server that connects to the District Office Domain controller. Also, contained in the MDF is each school is a Cisco Voice gateway device powering/connecting all of the sites' Cisco IP Phones. UPS' are located in each site server room to protect against power outages/surges.
- Each school site is equipped with 10 to 15 Cisco Wireless Access Points, an enterprise wireless solution, depending on the size of the facility. Because of its modular enterprise design, the district plans to continue to add WAP's as funding becomes available.
- MVSD employs a star topology network, with the District Office MDF serving as the center, offering most network services.
- The district uses Cisco Call Manager and Unity to provide IP phones as well as digital voicemail also accessible through email. The district employs 3 PRI trunk lines with around 200 DID phone numbers available as well as virtual extensions within the Cisco IP phone system. The phone system meets and exceeds not only public educational needs, but also the standard found in the private sector.
- The district is eligible for E-rate discounts for Internet services.

- All staff members, certified and classified, have mvschools.org domain email accounts. Students do not have access to district email accounts.
- WAN connections through the district are fiber optic provided by AT&T's Opt-E-Man Network. All connections are rated at100mbs or greater. The district connects to MCOE for the gateway to the Internet, which is at 100mbs .
- All sites and facilities within the district are connected to the MVSD network.

Existing Electronic Learning Resources: All software purchases must meet a minimum set of standards consistent with the California Learning Resource Network (CLRN), as well as the needs and standards of Mill Valley School District. The district coordinates purchasing of site and district licenses to obtain the best values. District software licenses include:

- District license for Microsoft Office
- Licenses for iLife and iWork on every Apple Computer
- KidPix – limited site licenses at each school
- Rosetta Stone – site license for ELL populations at each school
- Solo Literacy Suite – with word prediction, text reader and graphic organizer for Special Ed students
- Follett Enterprise for School Libraries
- Aeries District License
- DataDirector district license
- EasyGrade Pro
- EBSCO online subscription databases
- School Messenger Phone Tree System
- Constant Contact

Existing Technical Support: The Tech Support Department is comprised of five (5) members: the Director of Technology, two System Administrator II technicians, and two System Admin III technicians.

- The Sys Admin II is responsible for most issues/problems at the local sites involving classroom and teacher computers, printers, phones and general technical issues.
- The Sys Admin III position is responsible for all network and infrastructure performance and maintenance issues that affect the district office as well as all of the school sites. Many times technical problems and issues can be exchangeable between the II and III position depending on the particular moment in time.

Tech Support Response Time

The average response time depends on factors, internal and external, project load and time of year. However, the technology team has a target goal of repair anywhere between one and two days, excluding exceptional circumstances outside the team's control.

District support staff will, whenever possible, prioritize support of classroom instruction ahead of other support duties to ensure that instruction is the primary focus of technology support in the district. Support to classroom instruction is compromised if a network outage or other major system complication occurs.

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:

- Most of the district focus will be on keeping desktops, laptops, and mobile devices current as well as increasing access to these devices for student use.
- Student, teacher and administrative staff workstations will need to be kept up to date with memory upgrades and through life-cycle replacement for machines that are too slow to operate some current and future multimedia software.
- Older machines will be repurposed as word processing and web browsing stations until they are retired.
- Printers, scanners and other peripherals that are used daily in the classroom will need replacement as they wear out. Peripherals for new programs such as videoconferencing will also need to be purchased.
- Teacher laptops were just refreshed, with older teacher computers moving to school laptop carts. This will help create greater access for students.
- With the recent implementation and success of mobile devices, the Mill Valley School District will explore these as a less expensive alternative to computers. These devices have the potential to provide more access for student use.

Electronic Learning Resources Needed:

- Operating system software, and software that is used throughout the curriculum will need upgrades every 2-3 years.
- Renewal of current productivity, library software, and content-specific software such as Lexia
- Renewal of web hosting and communication software
- A management system for mobile devices will need to be implemented to streamline content and application distribution.

Networking and Telecommunications Infrastructure Needed:

- A high capacity internal network is required for fast access from wired and wireless clients to central resources on file and application servers. The existing network was

recently put into place and is adequate to current tasks. The bandwidth needs to be increased to accommodate future needs generated by growth and mobile devices.

- Several district infrastructure components will need to be replaced and maintained in the next few years including:
    - Cisco Call Managers
    - Cisco Pix Firewall
    - Cisco Core Switches

Physical Plant Modifications Needed:
A generator is needed to supply power in case of long term power loss.

Technical Support Needed:
IT Support Staffing is adequate and should continue to be funded at the current level. However, based on the curriculum and professional development goals, more instructional technology support and facilitation is needed.

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.

- New teacher laptops will be purchased through a 3-year lease program.
- The district has defined parameters for upgrading classroom equipment that are consistent with business standards and will apply them to purchasing decisions.
- In 2012, desktop and laptop computers that are deemed end of life will be transitioned out of the schools
- Operating system software, and district/site licensing software that is used throughout the curriculum will be replaced every 2-3 years, as needed.
- New points of access for wireless infrastructure will be added as needed.
- Switches in schools will be replaced to provide faster connectivity

Annual Benchmarks & Implementation Plan

Year 1 Benchmark: Implementation of mobile device management system, and upgrade existing infrastructure.

Year 2 Benchmark: Increase staff development to support the increase of technology use in the curriculum.

Year 3 Benchmark: Continue replacement of outdated or unsupported equipment as well as additional equipment for use in the classroom.

Year 1 Implementation Activities		
Recommended Actions/Activities	**Timeline**	**Person(s) Responsible**
District will implement a mobile device management system upgrade to support mobile device implementations	Aug. 2012 and ongoing	IT
District will upgrade wireless and existing infrastructure at schools sites to support additional devices.	Aug. 2012	IT
District will conduct an annual inventory of software purchased by schools, departments, special programs and teachers; will develop a list/database and devise procedures for keeping it updated. District/sites will purchase upgrades and additional licenses for existing software and services as needed.	Sept. 2012 and yearly thereafter	IT, Site administrators
Purchase mobile devices and desktop computers to maintain student to computer ratio.	By June of each year	Director of Technology, Site Administrators
Meet with funding interests to develop long term purchasing plan to develop equitable technology access for all sites	Sep. 2012 and ongoing	Director of Technology, Superintendent
Install new security appliance for district	By June 2013	Director of Technology
Provide sites with necessary IT and instructional technology support.	Fall 2012 and ongoing	Director of Technology, IT
Maintain IT documentation for all system administration tasks with details of software configuration, software licenses, accounts and passwords, and instructions.	Fall 2012, and ongoing	Director of Technology, IT

Conduct a detailed annual review of network bandwidth requirements at the classroom level, to determine whether the wired and wireless network equipment will have adequate bandwidth for the coming year. Replace wireless access points should be 802.11n capable with advanced management capabilities.	January 2013	Director of Technology, IT
Conduct annual state technology survey in January each year and evaluate results.	January 2013	Director of Technology
Purchase new server for Teacher storage and backup	Aug. 2012	Director of Technology, IT
Identify 3-4 faculty each school year from various grade and curriculum areas at each site to attend trainings and develop ideas around the use of technology in the existing curriculum.	Fall 2012 - Spring 2013	Director of Technology, IT, District Technology Advisory Committee, Instructional Technology Coach
Offer a variety of instructional technology trainings throughout the course of the year to support district curricular goals	Fall 2012 - Spring 2013	Director of Technology, IT, District Technology Advisory Committee, Instructional Technology Coach

Year 2 Implementation Activities		
Recommended Actions/Activities	**Timeline**	**Person(s) Responsible**
District will conduct an annual inventory of software purchased by schools, departments, special programs and teachers; will develop a list/database and devise procedures for keeping it updated. District/sites will purchase upgrades and additional licenses for existing software and services as needed.	Sept. 2013	IT, Site administrators
Provide sites with necessary IT and instructional technology support.	Fall 2013- Spring 2014	Director of Technology, Site Administrators

Conduct a detailed annual review of network bandwidth requirements at the classroom level, to determine whether the wired and wireless network equipment will have adequate bandwidth for the coming year. Replace wireless access points should be 802.11n capable with advanced management capabilities.	January 2014	Director of Technology, IT
Conduct annual state technology survey in January each year and evaluate results.	January 2014	District Tech Director & Site / Tech Staff
Replace existing Cisco Call Managers and explore moving to virtual servers	July 2014	Director of Technology, IT
Explore implementation of a Storage Area Network (SAN) to support Virtualized Server environment.	Spring 2014	Director of Technology, IT
Evaluate existing equipment for replacement cycle	Spring 2014	Director of Technology, Site Administrators
Add additional student devices so that 60% of students have access to devices supporting the required applications and services. Devices will be selected as technology progresses and taking a cost effective approach to ensure we maximize our spending.	Spring 2014	Director of Technology, IT
Identify 3-4 faculty each school year from various grade and curriculum areas at each site to attend trainings and develop ideas around the use of technology in the existing curriculum.	Fall 2013 - Spring 2014	Director of Technology, IT, District Technology Advisory Committee, Instructional Technology Coach
Offer a variety of instructional technology trainings throughout the course of the year to support district curricular goals	Fall 2013 - Spring 2014	Director of Technology, IT, District Technology Advisory Committee, Instructional Technology Coach

Year 3 Implementation Activities		
Recommended Actions/Activities	**Timeline**	**Person(s) Responsible**
District will conduct inventory of software purchased by schools, departments, special programs and teachers; will develop a list/database and devise procedures for keeping it updated. District/sites will purchase upgrades and additional licenses for existing software and services as needed.	Sept. 2014 thereafter	IT, Site administrators
Purchase mobile devices and desktop computers to maintain student to computer ratio at lower cost without compromising productivity and instruction. Reposition portable computers in core classrooms as well as in shared carts. Upgrade memory as needed.	By June of each year	IT Department, Fiscal Services
Provide sites with necessary IT and instructional technology support.	Fall 2014-Spring 2015	Director of Technology, Site Administrators
Conduct a detailed annual review of network bandwidth requirements at the classroom level, to determine whether the wired and wireless network equipment will have adequate bandwidth for the coming year. Replacement wireless base stations should be 802.11n capable with advanced management capabilities.	January 2013	Director of Technology, IT
Conduct annual state technology survey in January each year and evaluate results.	January 2015	Director of Technology, District Technology Advisory Committee
Identify 3-4 faculty each school year from various grade and curriculum areas at each site to attend trainings and develop ideas around the use of technology in the existing curriculum.	Fall 2014 - Spring 2015	Director of Technology, IT, District Technology Advisory Committee, Instructional Technology Coach

Offer a variety of instructional technology trainings throughout the course of the year to support district curricular goals	Fall 2014 - Spring 2015	Director of Technology, IT, District Technology Advisory Committee, Instructional Technology Coach

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 Director of Technology will be responsible for monitoring and evaluating the activities in Section 5c. The District Technology Committee/ will support the monitoring and evaluation of this section of the plan by analyzing the evaluation data described in Section 5c. They will make recommendations on improving the implementation of plan infrastructure benchmarks.

Realizing that all equipment purchases will be made according to budgetary constraints for that year, a meeting with the DATC, and Superintendent will take place annually to establish the funding priorities and to map out a plan.

The District Director of Technology will support the monitoring and evaluation of this section of the plan by:

- Monitoring and evaluating help desk records and purchase requests
- Monitoring and evaluating District survey results to measure progress on benchmarks district-wide
- Monitoring input from teachers
- Monitoring and evaluating State technology survey results

Review of progress will be reported annually to the Superintendent and Board of Education.

6. Funding and Budget

6a. List of established and potential funding sources.

Established Funding Sources:

E-Rate

E-Rate is the commonly used name for the Schools and Libraries Program of the Universal Service Fund, which is administered by the Universal Service Administrative Company (USAC) under the direction of the Federal Communications Commission (FCC). The program provides discounts to assist most schools and libraries in the United States (and U.S. territories) to obtain affordable telecommunications and Internet access. It is one of four support programs funded through a Universal Service fee charged to companies that provide interstate and/or international telecommunications services.

The program allows for subsidy of expenditures for these categories of E-Rate Services:

- Plain old telephone service (POTS)
- Voice-over IP (VOIP) Telephony
- Wireless data services such as Blackberry
- Long Distance telephone services
- Email, automated voice notification, and safety related services
- Internet access and Internet services, including fiber-optics
- Other SLD services congruent with implementation of the current technology plan.

Paragraph 59 of the Schools and Libraries Fifth Order, states that the Universal Service Administrative Company (USAC) has "been treating technology plans approved under the [United States] Department of Education's Enhancing Education Through Technology (EETT) as acceptable technology plans subject to one qualification. Consistent with the [Federal Communications] Commission requirement that program applicants demonstrate that they have the necessary resources required to utilize E-Rate discounts, USAC has required that the EETT technology plans be supplemented by an analysis that indicates that the applicant is aware of and will be able to secure the financial resources it will need to achieve its technology aims, including technology training, software, and other elements outside the coverage of the Commission's support program."

The E-Rate addendum is maintained separately by the district and not required for inclusion in the technology plan.

Other Funding Sources

"Kiddo!"- the Mill Valley Schools Foundation, was established by parents in 1982 to supplement shrinking school budgets. Initially supporting Art in the schools, it has expanded to provide financial support of music, drama, art, dance and poetry programs and district technology needs. Kiddo! has raised over $12 million for Mill Valley Schools. Annually, Kiddo! commits $225,000 in support for technology specialists in the schools and district office.
http://www.cde.ca.gov/pd/ai/tg/

After School Education and Safety (Proposition 49)
http://www.cde.ca.gov/ls/ba/as/ases06fundingfaq.asp

Best Buys Te@ch Awards – $2,500 grants given out every January to classroom teachers. The application is due in September of each school year.
http://communications.bestbuy.com/communityrelations/teach.asp

California Teleconnect Fund - SB 1102 requires that the E-rate discount must first be applied prior to applying the CTF discount to CTF-eligible services, regardless of whether the school or library has applied for, or has been approved for E-rate.
http://www.cpuc.ca.gov/static/telco/public+programs/ctflist.htm

CAL-Save – Cal-Save leverages the statewide buying power of California's schools and public agencies to secure the lowest possible prices on district licenses such as Microsoft Operating System or Productivity Suites, web-based services like Atomic Learning and discounts on digital cameras, projectors and other needs.
http://www.calsave.org

CTAP - http://myctap.org

A state-funded K-12 agency providing technology leadership support through low-cost/no-cost workshops and trainings around five themes:

- Digital Age Learning and Creativity
- Digital Citizenship and Responsibility
- Learning and Leading with Data
- Managing/Supporting a Learning Network
- Business Meets Education

EETT Formula Grant. Title II, Part D, Enhancing Education Through Technology is an annual award to districts for technology since 2002. Writing this district technology plan automatically qualifies the district for funding.
http://www.cde.ca.gov/ls/et/ft/eettformula.asp

Potential Funding Sources:

One of the challenges for raising technology funding for our District arises from the fact that we have few students participating in the free and reduced Student Lunch Program, which disqualifies us from applying for many grants.

Nonetheless, as the time of austerity budgets continues, we can propose some ongoing cost-saving measures to support funding for technology.

- Apply for all governmental technology grant programs and class-action settlements if award amounts are over $2,000 and if not disqualified by lack of NSLP participation.
- Generate cost savings by evaluating and selecting open-source content and software and lower-cost hardware if they can meet technology plan objectives. This plan includes a pilot program to evaluate the use of tablets such as the Apple iPad to replace conventional laptops that cost 2 to 2 1/2 times as much.
- Investigate the use 4 year leases (instead of purchases) to ensure funding commitment to replace client computers.
- Encourage staff to reduce energy and consumable costs through monitoring and adjusting energy use by computers, printers and other electronic devices, and by sharing and distributing documents electronically rather than on paper. Cost savings from these efforts can then be applied to technology purchases.

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

Item Description	Year 1	Year 2	Year 3	Funding Source Including E-Rate
1000-1999 Certificated Salaries				
Salaries Certificated Staff--Teacher/Librarians	$16,000	$17,000	$18,000	General Fund
Professional Development--Certificated Salary	$17,000	$17,000	$17,000	General Fund
2000-2999 Classified Salaries				
Salaries Classified Staff	$475,000	$485,000	$495,000	General Fund, Foundation
4000-4999 Materials and Supplies				
Curriculum	$5,000	$7,500	$7,500	General Fund
5000-5999 Other Services and Operating Expenses				
Professional Development--General (Consulting, Materials & Supplies)	$5,000	$5,000	$5,000	General Fund/Title II
Software	$10,000	$10,000	$10,000	General Fund
Electronic Resources	$25,000	$25,000	$25,000	General Fund
Technical Support (Outside Support through maintenance agreements)	$10,000	$12,000	$13,000	General Fund
6000-6999 Equipment				
Infrastructure	$50,000	$20,000	$30,000	General Fund
Hardware	$75,000	$75,000	$75,000	General Fund/Foundation/PTA
Totals:	$688,000	$673,500	$695,500	

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

The District still has a number of computers over 4 years old. As technology change accelerates, operation of older computers becomes more difficult if the technology offered to teachers and students needs to be compelling. For this reason, the District will make every effort to replace workstation computers used by teachers and students on a 4 year cycle.

Servers will be independently evaluated annually for their usefulness (largely a factor of CPU speed and storage space). On average, servers can be expected to be replaced on a 5 year rotation, but with an emphasis and reducing the number of in-house servers wherever possible, moving services either to virtualized server images on fewer machines, or on a cloud computing platform (no hardware).

Printers deemed essential will also need replacement on a 5 year basis, but we will make every effort to retire classroom printers that fail out of warranty, by stressing the need to do more and more work paperless. Ink-jet printers have been phased out over time and replaced with network laser style printers that are shared by staff and/or departments. Other peripherals such as video cameras that get heavy student use and that contain moving parts will need to be replaced more frequently -- 3 years is a reasonable expectation for these.

Wireless networking equipment will be need to be replaced as new higher-speed technologies such as 802.11n and WiMax come into use by client computers. It is expected that most of the current 802.11 b/g era wireless equipment will need to be replaced during the plan's effective period 2011 (life cycle of 5 years).

Basic wired network equipment such as routers and switches will need replacement to fulfill new roles (such as voice over IP) and as bandwidth and security requirements increase. The existing stock of basic network equipment is on average about 6 to 7 years old. Voice over IP will inevitably be in the District's future plans as prices come down. It is expected that new VoIP-capable network equipment will become cost-effective for the District about 3 years from now (meaning an average life cycle for our existing basic network equipment of 6-7 years).

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 District Director of Technology, Business Manager, Superintendent, all monitor the annual technology budget. The Business Manager and school administrators review technology funding opportunities each year as the Governor's office proposes, revises and signs the State Education budget. Technology funding is coordinated district-wide; site principals may request specific programs or adjustments but these are considered as part of an overall District budget. The district works closely with its educational foundation **Kiddo!** as well as PTA organizations at each school to maintain and replace technology hardware, software and services.

District committee members regularly receive notification of grant opportunities through CTAP's publication, *Technology Funding Alert*. The Director of Technology, Site Principals and District Technology Advisory Committee (DTAC) members will review corporate grant opportunities and encourage and support grant writing by teachers throughout the school year. In March or April of each year DTAC reviews the expenditures listed in the Technology Plan for the next fiscal year, and presents a summary request to the Board of Trustees, adjusting for enrollment increases and other factors that may not have been foreseen when the plan was written.

The district will take advantage of cost savings through purchase of district and site vs. individual licenses. Wherever possible, the district will make use of State purchasing power through Cal-Save. The Director of Technology will be the lead contact for E-Rate and other governmental grants.

During April, May and June of each year, the Board's Finance Committee reviews the technology spending request as part of the process of setting an overall budget that is formally adopted in June. If adjustments to technology spending become necessary due to increases or decreases in available funds granted by the Board of Trustees, DTAC will determine what adjustments to this plan should be made.

7. Monitoring and Evaluation

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

This educational technology plan is meant to be a “living” document that will guide district decision making over the three-year duration of the plan. It will be monitored, evaluated and revised by the District Technology Advisory Committee (DTAC) as needed. Any revisions to the plan will be presented to the Board of Trustees annually.

The District Technology Advisory Committee will provide overall coordination and oversight of the technology planning process. Coordination will include the implementation of goals and objectives set forth in this plan to integrate technology to meet core curriculum goals.

The District Director of Technology and technology support staff will provide information and oversight to guide the Curriculum, Professional Development and Infrastructure components of this plan, while the District Business Manager, Superintendent and Board Finance Committee will provide coordination and oversight of technology funds and budget issues.

School Principals will provide site-based updates on technology plan implementation and needs; site based training support; input on efforts, outcomes and needs to support implementation of the plan to meet district curricular goals.

Every effort will be made to collect relevant measurable objective data that can be documented, referenced and reviewed, as outlined in the implementation step tables' Monitoring column and in the Evaluation section attached to each goal in Sections 3-5. To create a view of the overall impact of the Technology Plan data will be drawn from the following sources (and others):

- Academic performance data
- Sociological data
- CBEDS data
- CELDT Data
- Surveys of teachers, students and parents
- Classroom observations
- Database of technology integration activities and lesson plans
- Local benchmarks in DataDirector
- Correlations to State or National standards
- EdTech Profile teacher proficiency data
- Documentation of staff development plans and objectives
- Professional development evaluation data
- Correlations to research
- Email and website traffic analysis
- Database of student- and teacher-created electronic resources
- Technology inventory data
- Help desk ticket records

- Total cost of ownership analysis

Responsibility for the evaluation of the overall effectiveness of this plan on teaching and learning will be assigned to many stakeholders.

- Individual teachers will provide data by correlating the use of technology with student outcomes using DataDirector or other measures.
- Grade Level and Curriculum teacher groups at each school will analyze data for strengths and weaknesses in content and grade-specific areas, as part of the District's professional learning communities initiative.
- Site Administrators will examine data at the site, grade level, subject, teacher and student levels, and use DataDirector information, teacher observations and other data to determine where technology use has been effective and where it has not. Principals will focus on where intervention is needed and which interventions have been successful in the past.
- The District Technology Advisory Committee will gather data from these and other stakeholders to identify areas in which technology may have positively affected results and areas in which technology might support future improvement. DTAC will publish its findings in annual reports to the Board of Trustees and make recommendations for the effective use of technology to support curricular goals, and amend the Technology Use Plan as necessary.

The Director of Technology, school administrators and the DTAC will communicate the overall progress and impacts back to the stakeholders, so that positive impacts can be maximized. Communication may occur via meetings of the Board of Trustees, staff meetings, media and press releases, parent education workshops, tours of the district and articles posted on district websites and/or distributed in electronic and print newsletters.

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

The District's Technology Advisory Committee (DTAC), will serve as the primary evaluator of the technology plan and will dedicate at least two of its meetings each year to review progress in meeting benchmarks for each goal and objective in Sections 3-5. The Technology Committee semi-annual review will highlight action items for teachers and administrators that remain to be carried out.

At a more detailed level, scheduled meetings at each school site will have at least one agenda item per meeting to discuss the progress of one or more technology plan implementation steps or goals. Discussions that raise significant problems or successes will be shared with the larger community through discussion time at school staff meetings, at Site Council meetings, or at a weekly District Admin meeting (Superintendent and Site Principals).

The technology advisory committee will prepare recommendations for modifications to the plan and present them to the Board of Trustees annually. After review and comment on these recommendations the plan will be updated on an annual basis.

When mid-course corrections are necessary, the DATC, and Site Administrators will have the authority to request, approve and allocate resources to effect change in technology initiatives.

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

The Superintendent and the District Director of Technology will prepare a formal implementation status report on the progress toward the plan goals and the completion of activities and will submit the report and budget recommendation to the Superintendent and the Board of Trustees on an annual basis.

Other District Advisory Committee members will make occasional presentations and board reports during the year highlighting different aspects of plan implementation.

Reports at all board meetings will be posted online and disseminated to the local community. In addition, administrators, teachers, students, parents and community members will be asked for feedback and comments on technology use through annual surveys, and the results of these surveys will be included in articles posted on district websites and/or distributed in electronic and print newsletters.

8. Collaborative Strategies with Adult Literacy Providers

Mill Valley School District does not have an adult literacy program of its own. But the Tamalpais Union High School District (TUHSD) is nearby and has always provided programs and facilities that can benefit adults in need.

Tamalpais Adult & Community Education services utilize all five of the district's high schools for academic, continuing education and personal enrichment classes. For the most part, the Adult & Community Education population has benefited from the district's technology plan in terms of facilities and hardware (computer labs) and instructional applications (pre-bundled software and other academic and professional applications like Rosetta Stone English Language Acquisition software, PLATO adult basic skills software, and keyboarding programs), as well as professional programs (Photoshop, Dreamweaver, Flash, Premier and more). The Adult & Community Education program, which includes literacy, has the advantage of working with the district and being able to provide current and relevant technology with its collaboration that serves literally thousands of Marin County residents.

TUHSD's Adult Education program offers classes in the following state mandated areas;

- English as a Second Language
- Adult Literacy (basic education, GED and HS Diploma)
- Career and Technical Education
- Adults with Disabilities

The **Marin Community College District** offers community education courses open to adults at its College of Marin, Kentfield campus. Eligibility requirements are that the participants are eighteen years old. Courses offered include a variety of English language, computer literacy and other classes to assist participants in acquiring basic proficiency to more advanced learning. Support for Spanish-speaking community members and for community members with special needs is available.

The **Marin Literacy Program** , sponsored by the Mill Valley Public Library and the Marin County Free Library, offers Adult Literacy programs to all county residents aged 16 and older who are no longer in high school.

9. Effective, Researched-Based Methods and Strategies

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

The goals, objectives, benchmarks and timelines presented or described in the previous sections of the plan are derived from proven strategies and methods for student learning, teaching and technology management and are based on relevant research and effective practices.

Our technology plan lists clear goals and strategies for integrating technology into the curriculum to improve student learning. The following relevant research was examined and integrated into our plan. The research we selected emphasizes best practices for technology integration in the curriculum and important factors that contribute to successful staff development.

Mill Valley School District agrees that technology should be integrated into the curriculum at all levels in order to improve student achievement. Technology improves student performances when the application directly supports the curriculum objectives being assessed. Alignment of project or lesson content with state content standards is an important first step in infusing technology into the curricula.

Relevant research and references that support curricular and professional development goals:

Curriculum

- A survey of 465 teachers in California resulted in 92% affirming that the starting point in infusing technology into the curriculum is having information about the specific content of a program or use of an application that aligns with state- adopted curriculum standards. A number of respondents indicated that an online resource that profiles electronic learning resources with the specific skills and knowledge in areas that align with the content standards would facilitate the selection of programs enabling the integration of technology with the curriculum (Cradler & Beuthel, 2001)

- The CEO Forum on Education and Technology (2001) studied the impact of technology over a five-year period to inform educational decision makers about effective uses of educational technology. The CEO Forum report recommends that schools develop strategic technology and educational plans that ensure alignment across the curriculum, learning standards and objectives. “Technology can have the greatest impact when integrated into the curriculum to achieve clear, measurable educational objectives.” The CEO Forum included 21st Century Skills as a “new set of skills necessary to prepare students for life and work in the digital age. These skills include digital literacy, inventive thinking, effective communication and high productivity abilities.” (CEO Forum on Education and Technology, June 2001).

- Research shows that high quality formative assessment does have a powerful impact on student learning. Black and William report that studies of formative assessment show an effect size on standardized tests of between 0.4 and 0.7, which is larger than most known educational interventions. Formative assessment is particularly effective for students who have not done well in school, thus narrowing the gap between low and high achievers while raising overall achievement. Inside the Black Box: Raising Standards Through Classroom Assessment P Black, D William - Phi Delta Kappan, 1998.

- Technology does provide a small, but significant, increase in learning when implemented with fidelity. While this statistic is encouraging, the real value lies to research lies in the identification of those technology interventions that get sufficiently positive results to warrant the investment. Most educators are looking for the value proposition that will significantly advance learning, teaching, and school system efficiencies. Taking advantage of these leverage points requires serious review of specific research studies that specifically address the needs and challenges of schools and serious attention paid to leadership development, professional development for teachers, school culture, curricular redesign, and teacher preparation. Technology In The Schools: What the Research Shows Metiri Group – commissioned by Cisco System 2006.

- A study of the attitudes of Internet-using public middle and high school students toward "use of the Internet for schoolwork and the broader learning that can take place online." shows that students want to be assigned activities that are relative to their daily lives and they want access to computers beyond that available in computer labs and only at specific times of the day. The digital disconnect: The widening gap between internet-savvy students and their schools. Levin, D, & Arafeh, S., American Institutes for Research for Pew Internet & American Life Project, 2003.

- Robert Marzano identified nine essential strategies that are most likely to improve student achievement across all content areas and across all grade levels. Using educational technology applications and resources, we can build on these recommendations and advance student learning through inquiry, collaborative projects, games, and other activities that will capture student interest and make school exciting and meaningful. We can help students take notes, summarize content and make comparisons and we can use technology to engage them in cooperative learning. We can also reinforce their efforts through formative assessment, feedback and recognition. Using Technology with Classroom Instruction that Works, Howard Pitler, Elizabeth R. Hubbell, Matt Kuhn, Kim Malenoski, Published by ASCD, 2007

- 21st Century Skills
  Technology can foster an increase in the quantity and quality of students' thinking and writing. Productivity tools such as databases, spreadsheets, computer-assisted design, graphics programs and multimedia authoring programs (programs for creating computer-based presentations or lessons) allow students to independently organize, analyze,

interpret, develop, and evaluate their own work. Several features of word processors seem to reduce the phobia often associated with writing and enable high school graduates to be proficient at accessing, evaluating, and communicating information. Educational technologies can, by design, provoke students to raise searching questions, enter debates, formulate opinions, engage in problem solving and critical thinking, and test their views of reality.
EnGauge 21st Century Skills: Literacy in the Digital Age, Lemke, Cheryl, et al. (2003), Available from http://www.metiri.com/21/21%20Century%20Skills%20Final.doc

- Mobile Learning
  "...a wide range of learning activities that could be supported through mobile digital tools and environments include: exploring, investigating, discussing, recording/capturing data, building/making/modeling, sharing, testing, adapting, [and] reflecting (Laurillard, 2007). The following articles, research, and kits offer thoughtful discussion regarding mobile learning--definitions, pedagogy, uses, implementation, challenges, and more.

  - Attwell, G (November 18, 2010). Research on Mobile Learning. Retrieved from Pontydysgu-Bridge to Learning, http://www.pontydysgu.org/2010/11/research-on-mobile-learning/JISC InfoNet (2011).

  - Mobile Learning infoKit. Retrieved from https://mobilelearninginfokit.pbworks.com/w/page/41122430/HomeLaurillard, D. (2007). Pedagogical forms for mobile learning: framing research questions. Retrieved from http://eprints.ioe.ac.uk/627/1/Mobile_C6_Laurillard.pdf

  - Parsons, D. and Ryu H. (2006). A Framework for assessing the quality of mobile learning. Retrieved from http://www.google.com/url?sa=t&rct=j&q=framework%20for%20mobile%20learning&source=web&cd=17&ved=0CGQQFjAGOAo&url=http%3A%2F%2Fciteseerx.ist.psu.edu%2Fviewdoc%2Fdownload%3Fdoi%3D10.1.1.108.2612%26rep%3Drep1%26type%3Dpdf&ei=hqqDTp_7H6rfiALU3Z2gCA&usg=AFQjCNGqXassMiccKx-gL3G9f3C9WW7nQQ&cad=rja

  - Sharples, M. et al. (2007). Mobile learning as a catalyst for change (Open Learning, Vol. 25, No. 3, November 2010, 181-185)
    Retrieved from http://www.telearn.org/warehouse/KAL_Legacy_Mobile_Learning_(001143v1).pdf

- National Educational Technology Plan
  Learning Powered by Technology (2010) is the current National Educational Technology Plan. The District technology plan addresses the five goals and key components identified in the National Educational Technology Plan:

  - Learning: Engaging and empowering students
  - Assessment: Measuring what matters

- Teaching: Preparing and connecting professional educators
- Infrastructure: Providing students and educators access to a comprehensive infrastructure
- Productivity: Redesigning and transforming processes to take advantage of technology to make more efficient use of time, money, and staff

Retrieved January 27, 2012 from http://www.ed.gov/technology/netp-2010

Professional Development

- An extensive report from WestEd examines many studies related to educational technology and school reform. Several key factors are identified as crucial elements for successfully using technology:
    - Technology is best used as one component in a broad-based reform effort
    - Teachers must be adequately trained to use technology
    - Teachers may need to change their beliefs about teaching and learning
    - Technological resources must be sufficient and accessible
    - Effective technology use requires long-term planning and support
    - Technology should be integrated into the instructional framework

  These key elements are addressed in several places in our Technology Plan. They are best found in the areas aligning technology with curricular and professional development goals emphasizing technology-enhanced, standards-based curricular lessons and units. The Learning Return On Our Educational Technology Investment: A Review of Findings from Research, WestED (Ringstaff and Kelley), June 2002

- The greatest gains in student achievement occurred when teachers were trained in the use of technology (Schacter, 1999). Intensive and ongoing staff development that provides opportunities for modeling, practice, and reinforcement of technology use with curricula should be linked to curriculum goals and objectives from the onset of technology implementation efforts (Roschelle et al. 2000). Being mentored by an experienced teacher who is proficient with technology is a strategy that builds teacher confidence and interest in technology (Zhao, Pugh, Sheldon, & Byers, 2002). Extensive research conducted by the Office of Technology Assessment reports that "Districts may be well advised to use multiple training and support strategies tailored to the educational goals of the local site" (OTA, 1995). Information such as that above has prompted Mill Valley School District to provide ongoing professional development, to provide more than one time workshops, to build capacity by designating Technology Leaders and identifying technology mentor teachers to provide "just-in-time" training.

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.

School Districts in Marin County, including Mill Valley, are all connected to AT&T's Opt-E-Man service, a fiber-optic Ethernet network that increases network capacity 30 times. It offers more than 600 times the bandwidth of a T-1 line, a speed fast enough to download almost any image without delay. Students, teachers and administrators have faster online access to information. Suddenly, video streaming and distance learning are viable options for students and teachers.

District-wide, educators have plans to create rigorous authentic learning experiences using these resources. The District is currently using Lexia Reading Program with extended online curriculum. We are exploring blended learning opportunities such as the Khan Academy, iTunes U, and other web-based educational content. We may also include virtual field trips and video conferencing.

Teachers already are taking advantage of webinars for professional development opportunities being streamed through the county office of education. Already, we've seen quadruple the number of teachers taking staff development classes online.

Appendix J - Technology Plan Contact Information
(Required)

Education Technology Plan Review System (ETPRS)
Contact Information

County & District Code: 21 - 65391

School Code (Direct-funded charters only):

LEA Name: Mill Valley Elementary

*Salutation: Mr.

*First Name: Chris

*Last Name: Coffelt

*Job Title: Director of Technology

*Address: 411 Sycamore Ave.

*City: Mill Valley

*Zip Code: 94941-2231

*Telephone: 415-389-7704

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Please provide backup contact information.

1st Backup Name: Margaret Ann O'Connor

E-mail: moconnor@mvschools.org

2nd Backup Name: Sarena Fairrington

E-mail: sfairrington@mvschools.org

* Required information in the ETPRS