# Technology Plan

## Ross Valley Elementary

July 1, 2012 - June 30, 2015

This plan is for EETT.

## Table of Contents

## Background and Demographic Profile

### Introduction

We live in a rapidly changing and increasingly complex society with unprecedented quantities of information for consideration. The use of technology can help our students develop the skills necessary to meet the State of California's Common Core standards and the development of 21st Century learning skills that will aid in a successful transition to High School and the world beyond. The purpose of this technology plan is to provide a framework in which further integration of technology will continue to enhance learning and individual development.

With this in mind, The Ross Valley School District believes that technology should be integrated into the overall learning experience of each student and all students should have equal access to innovative technologies. In support of this belief the District has updated our technology plan for a new three-year cycle in order to meet the District's educational goals and the certification requirements of the California Department of Education.

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 Ross Valley School District Technology Plan describes the process in which we will integrate computers and related technology into the District curriculum. For each goal the Technology Master Plan outlines the objectives that will support the mission of the Ross Valley School District. The plan identifies the method for routine review and revision to insure 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.

### District Overview

Ross Valley School District has a reputation for outstanding academic achievement, innovative and responsive teaching and a caring community of parents and staff. We are proud of the academic accomplishments of our students who consistently score well above state averages in the highest performing county in the state. The values of the Ross Valley School District community are evident in every classroom throughout the District. We are committed to ensuring every student is successful, engaged in learning and challenged to think critically. We support the social and emotional development of our students and have established a character education program that emphasizes respectful communication and emotional and physical safety. We respect the shared responsibility of stewardship for the earth and giving back to the community through programs of environmental awareness and service to the community.

The Ross Valley School District is an elementary district serving the Marin communities of San Anselmo and Fairfax. Three school sites are located in San Anselmo: Wade Thomas Elementary School serves grades K-5, with a student population of 434 students in the current year;

Brookside Upper (currently grades 1-5) has 434 students; and Brookside Lower (grades K -3 in the current year) has 317 students. Two schools are located in Fairfax: Manor Elementary School (grade K-5) has 420 students and White Hill Middle School (grade 6 – 8) with 605 students for a total enrollment of 2212. The majority of White Hill Middle School graduates attend Sir Francis Drake High School in the Tamalpais Union High School District, as well as private schools in Marin County and San Francisco.

Ross Valley School District has a strong tradition of community involvement and participation in the education of its children. Parents and community businesses take part in the educational and decision-making process through fundraising, classroom volunteering, participation on Site Councils and other school and district committees.

The District is supported financially by many sources (described in more detail in the Funding and Budget section). The District's status for State funding is Revenue Limit. From a socioeconomic point of view, there are currently 11% of District students participating in the National School Lunch Program. Anecdotally, 90-95% of district families have internet-connected computers at home. The student population includes a small but growing number of foreign-language (primarily Spanish) speakers. The District alsosupports about 10% of its students with various special education services.

Ross Valley School District's 2011 Academic Performance Index (API) scores, based on the annual STAR assessment of students in Grades 2 through 8, continue to be some of the highest in the State. The District had a median API score of 922 for 2011, with all significant subgroups achieving an API of 780 or above.

## 1. Plan Duration

**July 1, 2012 - June 30, 2015**

The Ross Valley School District Technology Plan will be in effect from July 1, 2012 - June 30, 2015 for a total of three years.

*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

### Stakeholders

Technology Plan Writing Committee

**Eileen Rohan**
Superintendent, Ross Valley School District

**Toni Beal**
Director, Student Services

**Sean Maher**
Network Manager

**Jason Richardson**
Principal, Manor Elementary School

**Ron Garry**
Teacher, Wade Thomas Elementary

**Rebecca Hayhurst**
Teacher, Brookside Lower

**Michael Bessonette**
Teacher, Brookside Upper

**Chris Lyons**
Teacher, Manor Elementary School

**Martha Crow, Juan Pommier, Katie Frank, Bob Lewis**
Teachers, White Hill Middle School

**Tina Stolberg**
Library Specialist, White Hill Middle School

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 two separate occasions between December 2011 and April 2012 and collaborated in development of the District document using online document editors. Many teachers on the team will continue to work on educational technology issues related to teaching and learning. 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.

### 3a. Current Technology Use

Currently, all RVSD students have access to technology in their schools. Students access computer technology in the computer learning labs at school sites. At all levels, students are expected to utilize technology to further their learning. The Special Education department and specialists ensure that students with disabilities are provided access to appropriate assistive technologies. Access and use of technology before and after school hours occurs at some district schools and through web-based applications.

Students at elementary schools have access to computers in classrooms for projects, intervention and practice. Each elementary classroom has at least one teacher work station; other classrooms have the teacher work station and up to three additional Internet-connected computers. One elementary school has access to a 30 laptop mobile cart. Students in grades 3 - 8 also have regularly scheduled time in the computer lab to practice and apply technology skills.

Middle school students have access to internet-connected computers in the library, a lab, and via two mobile laptop carts for projects, intervention and practice. Students also have access to computers during lunch, Connections (advisory period?) and before school.

The current classroom standard includes one teacher computer, a document camera and a projection system. All classrooms have telephone and Internet access. With the recent upgrades to the District's wireless infrastructure, we have expanded coverage to 90% of classrooms across the District.

#### *Number and Location of Computers*

According to the December 2011 survey data, there are a total of 459 instructional computers in the Ross Valley School District. All computers have Internet access. Only 20% of the District's 459 computers are less than 2 years old.

| Site | No. of Computers | No. of Students | Student to Computer Ratio | No. of Rooms | No. of Computers < 2 yrs |
|---|---|---|---|---|---|
| Brookside Lower | 38 | 317 | 8:1 | 20 | 38 |
| Brookside Upper | 101 | 434 | 4:1 | 23 | 94 |
| Manor | 88 | 417 | 5:1 | 22 | 55 |
| Wade Thomas | 63 | 428 | 7:1 | 23 | 60 |
| White Hill | 169 | 610 | 4:1 | 34 | 117 |
| Totals: | 459 | 2206 | 5:1 | 122 | 364 |

Although the overall student to computer ratio is 5:1 this ratio increases to 23:1 for computers less than 2 years of age.

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

Teachers were asked to complete the Ed Tech Profile and a District developed survey, based on the skills identified in RVSD's 2009-12 Technology Plan, to determine teachers' use of technology in teaching and learning. Of the 103 elementary and middle school CORE classroom teachers, 45 responded to the District survey. The results of this District survey follow.

| District-Wide Grade Level Technology Survey - December 2011 Use of Technology in the Classroom RVSD Skills Continuum & NETS | | | | | |
|---|---|---|---|---|---|
| | K/1st | 2nd/3th | 4th/5th | 6th | 7th/8th |
| | 15 responses | 12 responses | 9 responses | 2 responses | 7 responses |
| Indiv Practice ELA/MA | 20% | | | | |
| Indiv Creative Time | 7% | | | | |
| Partner Practice ELA/MA | 0% | | | | |
| Partner Creative | 0% | | | | |
| Word Processing | | 88% | 100% | 100% | 85% |

| | | | | | |
|---|---|---|---|---|---|
| Keyboarding | | 88% | 100% | 100% | 85% |
| Power Point/Presentation | | 33% | 67% | | 57% |
| Internet | | 25% | | | |
| Video/Digital Camera Use | | | 0% | 50% | 57% |
| Multimedia Software | | | 11% | 0 | 42% |
| No Access To Computers | 80% | | | | |

As indicated above, 2nd - 8th grade teachers focus primarily on developing students' skills in the areas of word processing and keyboarding. Power point is utilized as the preferred presentation software beginning in third grade. All teachers reported a lack of access to updated and relevant classroom technology.

District Survey Questions: ***How do students use computers and other technologies in the classroom?***

In kindergarten and first grade, 80% of the teachers (12/16) who responded, reported that students do not have access to computers in the classroom. One teacher reported she had used a laptop cart one day a week, until technical difficulties made the effort nearly impossible without parent volunteer support. Projection cameras are used throughout this grade level as an instructional strategy.

Eighty-eight percent (7/12) of second and third grade teachers who responded, reported that students use technology to build skills in word processing and keyboarding; 50% use power point; and only 38% use the Internet. Document and digital and flip video cameras are used by students to demonstrate and present what is learned.

At the 4th-8th grade level, teachers use technology for students to build skills in word processing, keyboarding and presentation software. They use the Internet as a research tool to gain knowledge and experience in developing NETS skills. Students in grades seventh and eighth are introduced to multimedia software in addition to document cameras, flip videos and lap top carts. Math teachers use graphing calculators.

Special Education teachers reported that they utilize technology to access grade level curriculum and remediate skills and abilities.

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

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

The Board of Trustees recognizes that content and performance standards are necessary to clarify for students, parents/guardians and staff what students are expected to know and be able to do at each grade level and in each area of study. The Board has adopted high standards for student achievement that meet or exceed statewide standards and challenge all students to reach their full potential. Essential Standards are based on a review of state standards and assessment of the skills that students will need in order to be successful in the workplace and in higher education, including basic skills, problem-solving abilities and conceptual thinking.

Special care is taken to ensure the proper articulation of standards among District schools. With the recent adoption of the California Common Core standards, the District has begun the process of aligning the currently adopted Essential Standards to the Common Core.

The District's overall goal is to have students meet or exceed California State Common Core standards and demonstrate proficiency in the 21st Century learning skills: Critical Thinking and Problem Solving, Communication, Collaboration, and Creativity and Innovation. The National Education Technology Plan, 2010, *Transforming American Education: Learning Powered by Technology,* along with the updated International Society for Technology in Education standards, (2008) identify six critical standards to advance learning: Creativity and Innovation; Communication and Collaboration; Research and Information Fluency; Critical Thinking; Problem Solving and Decision Making; Digital Citizenship; and Technology Operations and Concepts.

As outlined in the National Education Technology Plan (2010):

> "Education is an enterprise that asks, What's worth knowing and being able to do?
>
> Education experts have proposed answers to this question, and although they differ in the details all recognize that what we need to know goes beyond the traditional three Rs of Reading, 'Riting, and 'Rithmetic. Whether the domain is English language arts, mathematics, sciences, social studies, history, art, or music, 21st-century competencies and expertise such as critical thinking, complex problem solving, collaboration, and multimedia communication should be woven into all content areas."

Our existing Information Literacy Skills Continuum adopted in 2009 which provided an articulated set of skills for students, teachers and library specialists will need to be updated to reflect this current technology focus.

In addition to the academic and technology standards, the District uses the Strategic Plan, District Goals, and site based Single Plans for Student Achievement to support instructional

goals. The Strategic Plan was developed through the collaboration of teachers, administrators and community members.

The mission of the District is to provide the quality educational experience all students deserve, which is grounded in best practices, reflects the highest academic standards, and is responsive to community expectations. We keep the focus on our students, and we are committed to providing a program of academic excellence, cultural richness, social, emotional, and physical development that educates, supports, challenges and inspires the whole child.

The RVSD technology plan strives to ensure technological resources are an integrated part of all programs and departments and used to enhance delivery of instruction, support all areas of the curriculum, promote communication and informed decision making, and support the educational needs of students, staff and community. The RVSD Technology Plan provides the direction necessary to ensure that technological resources are used in an integrated manner that results in improved student achievement and the efficient delivery of services.

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: Teachers will use their knowledge of subject matter, teaching and learning, and technology to facilitate the experiences that advance student learning, creativity, and innovation.**

Objective 3d.1.1: By June 2015 75% of K-8 teachers will integrate technology to advance student learning, creativity and innovation to implement the California Common Core Standards.

Benchmarks:

- Year 1: By June 2013 55% of K-8 teachers will integrate technology to advance student learning, creativity and innovation to implement the California Common Core Standards.
- Year 2: By June 2014 65% of K-8 teachers will integrate technology to advance student learning, creativity and innovation to implement the California Common Core Standards.
- Year 3: By June 2015 75% of K-8 teachers will integrate technology to advance student learning, creativity and innovation to implement the California Common Core Standards.

| Implementation Plan | | | | |
|---|---|---|---|---|
| **Activity** | **Timeline** | **Person(s) Responsible** | **Monitoring & Evaluation** | **Evaluation Instrument** |
| Recruit and identify a cadre of staff to provide leadership and coaching to colleagues. | April 2012 - May 2012 - Initial Annually beginning April for Fall | Superintendent, Educational Services, Technology | District and site administrators will construct the application, recruitment and selection of teacher leaders. | Completed applications. |

| | | | | |
|---|---|---|---|---|
| Provide professional development through regional conferences and local trainings. | June 2012 - June 2015 | Superintendent, Educational Services, Technology | Tech mentors' attendance at district, county and state-wide conferences. | Sign-in sheets, agendas for Tech Mentors' meetings and state-wide conferences. Attendees' plans and execution of collegial in-service and trainings. |
| Coordinate and provide quarterly staff development trainings. | Quarterly, 2012-13; 2013-14; 2014-15 | Superintendent, Educational Services, Technology, Tech Mentors, Principals | District and site administrators will track the development and implementation of all activities and accomplishments based on teacher evaluations/ feedback. Modifications will be made as needed to ensure that we meet or exceed objectives. | Invitations, schedule of trainings/sites, presenter materials, attendance sheets, feedback from participants |
| Designate at least 1 of 3 Teacher Professional Development Days to technology integration and implementation of ISTE NETS For Teachers | Annually, May 2013, 2014, 2015 | Superintendent, Educational Services, Technology, Tech Mentors. Curriculum Committee | | Invitations, schedule of trainings/sites, presenter materials, attendance sheets, feedback from participants |
| Teachers will incorporate technology into the curriculum | 2012, ongoing | Teachers, library-media specialists | | Lesson plans, student projects |
| Teachers will evaluate the effectiveness of their technology-infused lessons and discuss ways to improve them | 2012, ongoing | | | Lesson plans, project assessments, PLC meeting notes |

**Goal 3d.2: Students will access and use appropriate technology to generate new ideas, products, or processes to demonstrate academic proficiency and share their learning.**

Objective 3d.2.1: By June, 2015 75% of all students will access and use appropriate technology to generate new ideas, products, or processes to demonstrate academic proficiency and share their learning.

Benchmarks:

- Year 1: By June, 2013 45% of all students will access and use appropriate technology to generate new ideas, products, or processes to demonstrate academic proficiency and share their learning.
- Year 2: By June, 2014 60% of all students will access and use appropriate technology to generate new ideas, products, or processes to demonstrate academic proficiency and share their learning.
- Year 3: By June, 2015 75% of all students will access and use appropriate technology to generate new ideas, products, or processes to demonstrate academic proficiency and share their learning.
-

| Implementation Plan | | | | |
|---|---|---|---|---|
| **Activity** | **Timeline** | **Person(s) Responsible** | **Monitoring & Evaluation** | **Evaluation Instrument** |
| Identify, share and support appropriate grade level on-line curricular and productivity resources. | September 2012 - June 2015 | Tech Mentors, Curriculum Leads, Educational Services, Technology | Quarterly Tech district-wide grade level trainings will include this benchmark in every meeting. | Agendas, feedback from attendees regarding quarterly district-wide grade level technology trainings |
| Develop district-wide Intranet to encourage the development, collaboration and sharing of resources. | June 2012 - August 2012 | Technology, Educational Services, Tech Mentors | District and site administrators will track the development and implementation of all activities and accomplishments based on teacher evaluations/ feedback. Modifications will be made as needed to ensure that we meet or exceed objectives. | Quarterly feedback from users. |
| Provide ongoing support and professional development for classroom teachers to increase their knowledge and access to appropriate resources for students to access and use. | August 2012 - June 2015 | Educational Services, Technology, Site Administrators, Tech Mentors | | Quarterly Grade Level Team Meeting Agendas Attendance sheets, attendee feedback |
| Students will create technology-infused projects that demonstrate their learning, express their ideas, and/or enhance collaboration | September 2012, ongoing | Teachers, Educational Services, Site Administrators | | Samples of student self-assessment, peer reviews |

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.

The District follows the National Educational Technology Standards for Students (NETS), that encompass a full range of technology competencies to evaluate the skills and knowledge students need to learn effectively and live productively in an increasingly global and digital world. Today's students need to be able to use technology to analyze, learn, and explore. Digital age skills are vital for preparing students to work, live, and contribute to the social and civic fabric of their communities.

The NETS define technology literacy skills in six broad categories:

1. Creativity and innovation
2. Communication and collaboration
3. Research and information retrieval
4. Critical thinking, problem solving, and decision making
5. Digital citizenship
6. Technology operations and concepts

Ross Valley School District has identified the NETS standards performance indicators for students, teachers and information literacy skills that students and staff must possess to become successful navigators, communicators, information processors, and producers of knowledge. A great variety of research projects and other curricular activities currently carried out in our District include the development of information literacy skills. Teachers play a central role in assuring that skills are covered each year at each grade level, many via research projects carried out in a large part at the library media center. Further training is needed to help teachers successfully plan for and integrate technology standards into student assignments at the appropriate grade levels. The integration and utilization of technology to help all students master common core standards in Language Arts, Math, Science, and History Social Sciences curriculum areas is incorporated into the District Goals. School action plans address curricular goals specific to the site, based on their analysis of student performance data.

**Goal 3e.1: Students will use a variety of digital media to locate, organize, analyze and evaluate information from a variety of sources.**

Objective 3e.1.1: By June 2015, 80% of students will use a variety of digital media to locate, organize, analyze and evaluate information from a variety of sources.

Benchmarks:

- Year 1: By June 2013 60% of students will use a variety of digital media to locate, organize, analyze and evaluate information from a variety of sources.
- Year 2: By June 2014 70% of students will use a variety of digital media to locate, organize, analyze and evaluate information from a variety of sources.
- Year 3: By June 2015 80% of students will use a variety of digital media to locate, organize, analyze and evaluate information from a variety of sources.

| Implementation Plan | | | | |
|---|---|---|---|---|
| **Activity** | **Timeline** | **Person(s) Responsible** | **Monitoring & Evaluation** | **Evaluation Instrument** |
| Revise the RVSD Information Literacy Skills continuum to align to the 2007 ISTE NETS standards | August 2012-June 2013 | Educational Services, Technology, Principals, Library Specialists and teaching staff | Library specialists, district wide grade level and committee meeting agendas to monitor progress | Meeting agendas and sign in sheets |
| District wide grade level and department teams will identify key learning outcomes aligned to curricular common core standards | October 2012-June 2015 | Education services, technology, principals, library specialists and teaching staff | District and site administrators will track the development and implementation of all activities and accomplishments based on evaluations instruments and feedback. Modifications will be made as needed to ensure that we meet or exceed objectives. | Meeting minutes, learning outcomes/curricular standards matrix?? |
| Develop grade level specific benchmark interdisciplinary projects | October 2012-June 2015 | Tech mentors, Education services, technology | | Tech mentors' meeting minutes, shared technology resources on website |
| Implement year 1 pilot of performance based interdisciplinary end of year benchmarks for grades 2-8 | August 2013-May 2014 | Pilot teachers, Site administrators, Education services, technology | | Student interdisciplinary projects |
| Identify appropriate technology resources | August 2012-June 2015 | Tech mentors, Education services, technology | | Tech mentors' meeting minutes, shared technology resources on website |
| Review and revise benchmarks | August 2014-June 2015 | Tech mentors, Education services, technology | | Revised performance assessments |

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

Ross Valley School District has a Technology, Network and Internet Services Student Acceptable Use Policy (AUP) that is signed by each student and parent at the beginning of each new school year. The district's Internet use policies and practices reinforce the importance of technology use for educational purposes only, reduce the potential for misuse and increase detection of misuse through effective supervision and monitoring. The AUP will need further updating to include policies on use of cell phones, instant messaging, text messaging, cell phone cameras, mp3 Players, laptop/iPads brought from home, and other electronic devices at school.

Per Ross Valley School Districts Board Policy *5131.9,* students are provided with guidance on academic honesty. This board policy will need to be revised to addresses the concept of students' ethical use of information technology. The middle school provides the greatest amount of information for student guidance through its student/parent handbooks and planners regarding academic honesty. Within these planners, there are sections devoted to Internet usage, plagiarism, and academic integrity to that also include consequences for abusing given privileges.

Though elementary schools provide information pamphlets to parents, there is no mention about ethical usage of information technology, nor is the subject broached about academic honesty. By the fourth grade, students are made aware of the definition of plagiarism and they are taught citation skills, though the application is inconsistent throughout the district.

A comprehensive plan will be necessary to meet expectations of AB 307, California legislative bill (Chavez legislation) that will plan for instruction and monitoring the curriculum in order for all students to become aware of their responsibilities about legal use of electronic file sharing, Internet usage, copyright and fair use, and plagiarism.

Cited Resources through Federal/State Legislation and ISTE standards:

***Assembly Bill 307 [Chavez Bill]***

(Education Code Section 51871.5) The guidelines and criteria for federal funding shall include a component to educate pupils and teachers on the appropriate and ethical use of information technology in the classroom, Internet safety, the manner in which to avoid committing plagiarism, the concept, purpose, and significance of a copyright so that pupils are equipped with the skills necessary to distinguish lawful from unlawful online downloading, and the implications of illegal peer-to-peer network file sharing.

***ISTE Digital Citizenship***

Students understand human, cultural, and societal issues related to technology and practice legal and ethical behavior. Students:

- Advocate and practice safe, legal, and responsible use of information and technology.
- Exhibit a positive attitude toward using technology that supports collaboration, learning, and productivity.
- Demonstrate personal responsibility for lifelong learning.
- Exhibit leadership for digital citizenship.

**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.**

| Implementation Plan | | | | |
|---|---|---|---|---|
| **Activity** | **Timeline** | **Person(s) Responsible** | **Monitoring & Evaluation** | **Evaluation Instrument** |
| Review standardized District-Wide Acceptable Use Agreement and distribute at the start of each school year. | July 2012–Ongoing | Technology, District and Site Administrators, Site Tech Mentors | District and site administrators, along with teachers will track development and implementation. Evaluations will be reported through the Acceptable Use Policy | Board Reports and Revised Acceptable Use Policy |
| Research existing digital citizenship programs and related issues, using materials published by such organizations as CTAP, ISTE, BrainPop, Cybersmart, Common Sense Media, and Netsmartz, to teach about plagiarism, netiquette, fair use, and copyright. | 2011-2012 | Administrators, Technology, Site Tech Mentors, Teachers | Tech Mentors to evaluate research | Meeting minutes |
| Select specific grade level appropriate digital citizenship material for instruction K-8 (currently in use or suggested by research in above activity), determine which setting is best (tech class, assembly, library, etc.), and lay out cyberethics scope and sequence for a comprehensive K-8 program | 2012-2013 | Administrators, Technology, Site Tech Mentors | Administrators oversee selection of digital citizenship material, Site administrators oversee implementation | Meeting minutes |

| | | | | |
|---|---|---|---|---|
| Provide instruction at all grade levels regarding cyberethics (e.g., tech classes for issues on downloading, library for issues on plagiarism, copyright, citation, class meetings for activities in ethics). | Ongoing | Counseling staff, teacher librarian, site administrators | Site administrator solicit reporting at grade level meetings | Meeting minutes |
| Expand existing District policies (such as 6163.4) regarding bullying, slurs, sexual harassment, plagiarism, and other ethical issues to include the use of technology, such as cyberbullying and sexting. | 2011-2012 | Counseling staff, Site Administrators, School Board, Superintendent | Site administrators determine appropriate additions, submit to Board | Board meeting minutes |
| Develop a one page "cheat sheet" offering teachers guidelines regarding fair use and copyright, along with the District policy on plagiarism and its consequences, to distribute to teachers | 2012-2013 | Teacher librarians, site administrators, Technology | Teacher librarian oversee creation and distribution of "cheat sheet" | Development of "cheat sheet" |
| Ensure that the District policies regarding cyberethics are aligned with the ISTE Digital Citizenship standards | Ongoing | Site Administrators, counseling staff, School Board | Site administrators to report to Board | Board meeting minutes |
| Include instances of cyber-abuse in site discipline logs. | Ongoing | Site Administrators | Site administrators keep track of logged instances | Discipline logs |

## 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 students' access to You Tube, MySpace, Facebook and sites deemed inappropriate by the Ross Valley School District.

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 21st 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.
- Library Specialists and teachers screen websites for content and instruct students regarding website safety
- 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 in Grades K-8 on how to avoid dangerous, inappropriate, disrespectful, or unlawful online behavior.**

| Implementation Plan | | | | |
|---|---|---|---|---|
| **Activity** | **Timeline** | **Person(s) Responsible** | **Monitoring & Evaluation** | **Evaluation Instrument** |
| Develop and implement a K-8 digital citizenship curriculum that is integrated with social-emotional learning. | 2013-2015 | Site Administration, Superintendent, Library Specialists, 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. | Site Single Plans for Student Achievement, Parent handbooks, District website |
| Establish a representative digital citizenship committee of RVSD staff, parents and students. | 2014-2015 | Superintendent, Network Manager, Site Administration | | Meeting Logs |
| Develop a parent education plan | 2014-15 | Digital Citizenship Committee, Technology, 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, Technology, 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.

All students in Ross Valley School District have access to computers in their classrooms. Mobile carts provide additional access for project based learning in Grades 6-8, and at Manor Elementary School. All elementary schools also have a dedicated computer lab designed for instruction with the teacher who coordinates a computer curriculum that works in tandem with the classroom curriculum. At the middle school there is one computer lab and one library lab. The library at the middle school is open to students during their lunch hour and before school, five days a week. Subscription based library and research services from EBSCO are made available to students both from school and at home.

Students with an individualized education program have access to technology hardware, software and peripherals as deemed appropriate and defined by the IEP site team and the student's IEP goals. English learners have access to technology hardware, software and peripherals needed to support their English language acquisition, as well as their achievement in the academic standards.

Our long-term goal is to provide equitable access to all technology across the district. While all students in RVSD have access to technology at their schools, whether in the form of 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, or by each school's PTA organization. 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.

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.

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.

RVSD staff use technology to facilitate day to day responsibilities. In 2007, the District began using DataDirector, a web-based data and assessment management system, to house data for all state standardized tests (eg CST, CELDT, CMA, CAPA etc..), District benchmarks and site assessments. DataDirector facilitates teacher analysis of student data by allowing teachers to view, aggregate, disaggregate, and report on student demographic and assessment data including sub-group information. The system provides built in reports including CST Scaled Scores, CST Cluster Scores, Multiyear CST Performance Summaries, and content area common assessments. Teachers can view detailed reports for district and site benchmarks that include item analysis and summary data.

Period-by-period attendance, grade reporting and class scheduling in the Middle School is done using Aeries Student Information System. In addition, all Elementary schools in the District utilize Aeries as the attendance, and student record keeping system.

In 2011, RVSD began using a web-based program called the Special Education Information System (SEIS) to develop IEP's for special education students. In SEIS, teachers complete web-based IEP forms to generate and store IEP's. Since the program is web-based, information can be easily shared among teachers when needed. AT the District level, SEIS enables monitoring of student programs and services to better serve the needs of the special education population. By analyzing current service trends, RVSD is able to make informed decisions about the needs of student groups or the possible over-identification of different groups. SEIS also allows the District to better monitor student timelines to meet IDEA requirements.

The District will continue to explore other procedures and systems that allow for efficient distribution and analysis of data to meet individual student academic needs.

**Goal 3i.1: All administrators and teachers will access and use student information for data-driven decision making to support students' social, emotional, behavioral and academic needs.**

Objective 3i.1.1: By June 2015 80% of all teachers will utilize technology to maintain student record-keeping and access student assessment data to assess and monitor students' social, emotional, behavioral and academic progress.

Benchmarks:

- Year 1: June 2013 40% of all teachers will be proficient in using a District supported system that allow for efficient distribution and analysis of data to meet students' social, emotional, behavioral and academic needs.

- Year 2: June 2014 60% of all teachers will be proficient in using a District supported system that allow for efficient distribution and analysis of data to meet students' social, emotional, behavioral and academic needs.
- Year 3: June 2015 80% of all teachers will be proficient in using a District supported system that allow for efficient distribution and analysis of data to meet students' social, emotional, behavioral and academic needs.

| Implementation Plan | | | | |
|---|---|---|---|---|
| **Activity** | **Timeline** | **Person(s) Responsible** | **Monitoring & Evaluation** | **Evaluation Instrument** |
| Develop and revise attendance and grade reporting training materials. | Annually beginning June 2012 | Assistant Superintendent, Human Resources, Ed Services, Technology | Annual training provided for all new administrators and teachers | Training materials and evaluation |
| Provide annual DataDirector training for teachers and administrators. | Annually Aug-Sep beginning 2012 | Human Resources, Technology | Schedule and communicate training dates to all site administrators and teachers | Training materials and evaluation; Access log monitoring |
| Provide annual Aeries training for teachers and administrators. | Annually Aug-Sep beginning 2012 | Ed Services, Technology, Principals | Schedule and communicate training dates to all site administrators and teachers | Training materials and evaluation |
| Provide annual SEIS training for Special Ed staff. | Annually Aug-Sep 2012 | Ed Services, SELPA | Schedule and communicate training dates to all special ed staff | MCOE provided attendance logs |
| Provide technical support for Aeries and DataDirector. | 2012, and Ongoing | Technology | User usage and demand for technical support | SchoolDude ticketing system |
| Administer EdTechProfile | Annually beginning January 2013 | Superintendent, Technology, Principals | Establish schedule and timeline for completion | Completed EdTechProfile Surveys |
| Sustain a culture of continuous improvement through frequent assessment and sharing of results | 2012, and Ongoing | Grade Level clusters, Principals, Superintendent | District and site administrators will track development and implementation of all activities and accomplishments through progress reports at regular district/ site administration meetings. . | Meeting notes and agendas, shared discussions |

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.

RVSD recognizes that strong parent involvement and collaboration are key components for a child's educational progress and as a result all sites and their administrators are encouraged to utilize a variety of venues to communicate with parents and the community. Many schools produce a monthly newsletter containing a message from the principal, spotlight on teachers, noteworthy student news, and information about school events. Newsletters are designed electronically using word processing or publishing software to generate professional documents. In many cases, the newsletters are a joint project involving input from site administration, teachers, and students; and the use of computers and network technologies facilitates easy sharing of information among all involved.

All RVSD staff members currently have a *Google Apps for Education* e-mail account. It is suggested that teachers communicate with each other, administrators, and parents through e-mail; and the District employs a consistent naming convention for all e-mail addresses (firstinitiallastname@rossvalleyschools.org) to assist parents, students, and employees in determining e-mail addresses for specific individuals. In addition Google Apps for Education provide teachers with the ability to create their own web pages.

RVSD has a District web site at http://www.rossvalleyschools.org/, and each District department and school site has its own web presence within that District site. Utilizing the District's current web site content management system, sites and departments have been able to create and modify simple, template-based web pages. To further enhance home-school communication, the District will transition to a new web site content management system in fall 2012. This system offers a variety of features that allow sites to easily incorporate event calendars, e-mail lists, and staff directories into their sites.

Parents and community members are currently able to provide feedback through email, voice mail, and surveys. Our goal is to use technology to make all teachers and administrators more accessible to parents and the school community.

**Goal 3j.1: Utilize technology to improve two-way communication between school and home.**

Objective 3j.1.1: By June 2015, 100% of all teachers and administrators will be accessible to parents and community members through email, school websites and teacher webpages.

Benchmarks:

- Year 1: By June 2013, 80% of all teachers and administrators will be accessible to parents and community members through email, school websites and teacher webpages.
- Year 2: By June 2014, 90% of all teachers and administrators will be accessible to parents and community members through email, school websites and teacher webpages.

- Year 3: By June 2015, 100% of all teachers and administrators will be accessible to parents and community members through email, school websites and teacher webpages.

| Implementation Plan | | | | |
|---|---|---|---|---|
| **Activity** | **Timeline** | **Person(s) Responsible** | **Monitoring & Evaluation** | **Evaluation Instrument** |
| Publish current teacher email contact information on school and District websites. | Annually beginning July 2012 | Human Resources, Technology | Monthly review and updates to ensure current information is available to the public | School site and District websites |
| Develop and update webpage production training materials and quick reference guides. | Ongoing beginning July 2012-2015 | Technology | Annual review based on participant feedback | Feedback from teachers, EdTechProfile |
| Transition to a new web site content management system in to enhance home-school communication. | Fall 2012 | Technology, Education Services | Websites will be monitored at the district and site level for content | Usage reports |
| Provide training for teachers on webpage development. | Annually beginning Sep-Dec 2012 | Technology | Scheduled training dates and sign in sheets, number of teacher webpages | EdTechProfile, parent feedback, and teacher feedback |
| Provide parent outreach regarding new website and two-way communication tools | December 2012, and annually | Principals, Technology | Website will be monitored at the district level | Parent newsletters and communication materials; parent survey |

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 Educational Services department will lead, assess and monitor the implementation of the educational components of this technology plan (Sections 3d. through 3j.). The Superintendent's weekly Cabinet meeting agendas will include a line item for updates to ensure benchmarks are met. The Technology Department will also work closely with the Educational Services Department to ensure that the goals of the technology plan are feasible and can be supported by existing infrastructure. Education Services will meet quarterly to monitor the timelines and various committees and groups within the technology plan to ensure the District stays focused on meeting identified goals, objectives, and benchmarks. The Technology Department, Educational Services, and the technology coaches will review the plan at annual meetings where reports will be made on the status of implementation. Identified problems will be discussed and strategies developed to revise this living document as needed. Based on information discussed, the Superintendent will report annually to all stakeholders.

## 4. Professional Development

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

The EdTech Profile (ETP) Survey, developed by the California Department of Education's State Educational Technology Service (SETS), has historically been given to all District employees annually. The results of the survey were used to determine training and professional development needs for classified, certificated and administrative staff.

This year, at the recommendation of the Marin County Office of Education (MCOE), all staff were invited to participate in a modified version of the ETP. One hundred and thirty four employees completed the ETP Lite survey authored by MCOE. Although similar, the ETP Lite survey produced a different set of data from previous years making it somewhat difficult to measure progress toward goals outlined in the 2009-12 RVSD Tech Plan.

**Current Technology Skills:**

In general the following data from the EdtechProfile Lite indicates a need for increasing staff's skills in the areas of general computer knowledge; database, spreadsheet, and presentation software; information literacy, internet safety and ethical use of technology.

| Teachers, Classified Staff and Administrators Current Technology Skills | NA | L1 Beginning Level | L2 Beginning Intermediate Level | L3 Intermediate Level | L4 Advanced Intermediate | L5 Advanced | Total L4 & L5 | PD Related to Section |
|---|---|---|---|---|---|---|---|---|
| Question 1: Rate your skill level in Internet functions. | 0% | 1% | 5% | 47% | 26% | 21% | 47% | 3e |
| Question 2: Rate your skill level in general computer knowledge and functions. | 0% | 2% | 17% | 42% | 24% | 15% | 39% | 3e |
| Question 3: Rate your skill level in Information Literacy. | 2% | 3% | 18% | 41% | 27% | 10% | 37% | 3e |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Question 4: Rate your skill level in Internet Safety. | 2% | 12% | 27% | 35% | 17% | 8% | 25% | 3g |
| Question 5: Rate your skill level in Email functions. | 2% | 2% | 5% | 44% | 26% | 22% | 48% | 3e |
| Question 6: Rate your skill level in Word Processing. | 0% | 1% | 6% | 32% | 38% | 24% | 62% | 3e |
| Question 7: Rate your skill level in presentation software. | 8% | 17% | 23% | 23% | 21% | 9% | 30% | 3d |
| Question 8: Rate your skill level in spreadsheet software. | 8% | 17% | 32% | 20% | 12% | 11% | 23% | 3i |
| Question 9: Rate your skill level in database software. | 17% | 29% | 26% | 16% | 7% | 5% | 12% | 3i |
| Question 10: Rate your understanding of ethical use of technology. | 5% | 10% | 17% | 37% | 20% | 12% | 32% | 3f |

**Technology Integration:**

Professional development must focus on integration of appropriate educational resources to advance teachers' instructional practice and support student learning. Less than 40% of respondents rated themselves as advanced for every question.

| Using Technology in the Classroom | Never Used | L1 Beginning Level | L2 Beginning Intermediate Level | L3 Intermediate Level | L4 Advanced Intermediate | L5 Advanced | Total L4 & L5 | PD Related to Section |
|---|---|---|---|---|---|---|---|---|
| Question 1: How well do I integrate technology tools when I teach? | 3% | 8% | 42% | 34% | 11% | 3% | 14% | 3d |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Question 2: How well do I use multimedia resources ? | 9% | 14% | 38% | 27% | 12% | 1% | 13% | 3d |
| Question 3: How well do I use technology tools to encourage student collaboration and peer evaluation? | 33% | 26% | 24% | 14% | 3% | 0% | 3% | 3d |
| Question 4: How well do I use a classroom web page? | 41% | 13% | 11% | 13% | 12% | 11% | 23% | 3j |
| Question 5: How well do I use technology to improve two-way communication between home and school? | 5% | 3% | 11% | 45% | 18% | 18% | 36% | 3j |
| Question 6: How well do I use technology tools for student record-keeping and assessment? | 10% | 19% | 16% | 33% | 14% | 8% | 22% | 3i |

**Technology use to support student learning:**

Similarly, few respondents rated themselves as above average or excellent when it came to using technology to support student learning.

| Using Technology to Support Student Learning | Never Used | L1 Beginning Level | L2 Beginning Intermediate Level | L3 Intermediate Level | L4 Advanced Intermediate | L5 Advanced | Total L4 & L5 | PD Related to Section |
|---|---|---|---|---|---|---|---|---|
| Question 1: How frequently are technology tools integrated into student learning activities? | 11% | 14% | 26% | 22% | 17% | 10% | 27% | 3d |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Question 2: How frequently do students use technology resources to achieve instructional goals? | 32% | 14% | 22% | 19% | 11% | 2% | 13% | 3d |
| Question 3: How frequently do students use technology resources to collaborate and/or give each other feedback? | 59% | 17% | 14% | 8% | 2% | 0% | 2% | 3d |
| Question 4: Rate your students' information literacy skills. | 26% | 8% | 12% | 49% | 6% | 0% | 6% | 3e |
| Question 5: Rate your students' access to computer-based and online technology. | 30% | 12% | 15% | 31% | 10% | 3% | 13% | 3d |

As indicated by the EdTechProfile Lite teachers and administrators will benefit from a well designed model for professional development that includes, general computer skills, and integration of technology to advance instructional practice and support student learning. District and site support staff have indicated a strong interest in attending local training to increase efficiency, accuracy and improve communication.

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.

RVSD believes that staff development may begin with a training, but must involve ongoing support through coaching, modeling and follow-up professional growth opportunities. As indicated by the data collected in the EdTechProfile we need to provide differentiated "Just in Time" training to all staff. As stated in *Educational Technology Planning: A Guide for School Districts:*

"Time is the greatest stumbling block for providing relevant and timely high-quality learning opportunities for teachers – time to plan, reflect, design lessons together, and examine and make meaning of content and teaching standards. Teachers need time both on-site and away from school to pursue learning opportunities."

To best meet the technology-related professional development needs of all RVSD staff, the District will take a multifaceted approach. To start, Technology personnel will continue to meet regularly with the Superintendent, Educational Support Services and staff to clearly identify needs, establish staff development priorities and ensure alignment of Professional Development with District Goals. Training will be provided through a variety of methods including direct instruction, modeling, hands-on practice and self-paced online tutorials.

The District will use a multi-tiered approach to training teachers, administrators and classified employees based on feedback and survey results from our EdTechProfile Lite. Below follows our priority of professional development and training:

- Recruit and train a cadre of instructional coaches at school sites to assist with the integration of technology into existing curricula
- Recruit and support a cadre of teachers to attain Intel's Teach Elements Program: Collaboration in the Digital Classroom, Assessment in 21st Century Classrooms, Project-Based Approaches, Thinking Critically with Data, Educational Leadership in the 21st Century
- Provide "Just-in-Time" skills-based trainings
- Identify "Scouts" those individuals who will visit other locations and attend conferences in search of, and to promote continued expertise and best practices

The work of our trainers, coaches and "scouts" will be coordinated and facilitated by the team of staff in our educational services and technology departments.

The Intel Teach Elements Program Professional Development was designed to help teachers understand 21st Century Teaching so there can be 21st Century Learning for students. The program "promotes standards-aligned, project-based approaches and multiple forms of assessment for learning. Courses help teachers transform instruction to engage students with appropriate use of technology, Web 2.0, and social networking to foster learning, creativity, and

communication." Teachers have the option of using free teaching tools and resources, participating in Intel Teach Elements Courses, and joining a global online community.

The second aspect of our training strategy will address the requests of teachers and staff who feel a need for basic skills (e.g. Google Apps, DataDirector, etc...). Small group and/or 1:1 trainings will be provided on early release Wednesdays, designated professional development days or as requested by school sites and/or district departments.

The third prong of our professional development model will be the Tech Coach teachers who will serve as instructional coaches or "translators" as the research refers to them. The Tech Coaches will provide the Just-in-Time support for teachers seeking ways in which to integrate technology with their curriculum. These efforts will be further supported by a series of workshops available through Intel Teach Elements Program modules.

Lastly, a small number of the Tech Coach teachers will be charged with attending appropriate conferences and visiting other sites, both within and outside California, to search out new ideas and best practices to further enhance our technology plan and implementation. They will be the ones who explore additional ideas, such as 1:1 computing, before expenditures and implementation.

Based on the EdTechProfile Lite survey, 42% of our teachers indicated they were at the beginning-intermediate level with integrating technology in their teaching, only using technology tools from time to time. Because access to instructional technologies in RVSD has been limited to a teacher workstation, projection system and a document camera, with just a few teachers having access to flip video and digital cameras, it's difficult to project if this data reflects interest, proficiency in use, or a lack of opportunity due to limited materials.

**Goal 4b.1: Teachers will be trained on technology integration and district approved technology tools to support the implementation of common core standards and 21st Century Skills.**

Objective 4b.1.1: 75% of all teachers will be trained on technology integration and district approved technology tools to support the implementation of Common Core standards and 21st Century Skills.

Benchmarks:

- Year 1: By 2013, 25% of all teachers will be trained on technology integration and district approved technology tools to support the implementation of Common Core standards and 21st Century Skills.
- Year 2: By 2014, 50% of all teachers will be trained on technology integration and district approved technology tools to support the implementation of Common Core standards and 21st Century Skills.
- Year 3: By 2015, 75% of all teachers will be trained on technology integration and district approved technology tools to support the implementation of Common Core standards and 21st Century Skills.

| Implementation Plan | | | | |
|---|---|---|---|---|
| **Activity** | **Timeline** | **Person(s) Responsible** | **Monitoring & Evaluation** | **Evaluation Instrument** |
| Develop guidelines for technology integration and a list of technology tools as guided by site, grade level and content area. | July 2012 | Education Services, Tech Mentors, Technology | Annual review based on teacher feedback | Feedback from surveys sent to teachers |
| Recruit and identify a cadre of staff to provide leadership and coaching to colleagues | April 2012-May 2012, and Annually | Superintendent, Educational Services, Technology | District and site administrators will construct the application, recruitment and selection of teacher leaders | Completed applications |
| Provide professional development through regional conferences and local trainings on technology integration and Common Core Standards | June 2012-June 2015 | Superintendent, Educational Services, Technology, Tech Mentors | District and site administrators will track development and implementation of all activities and accomplishments through progress reports at regular district/ site administration meetings. | Training materials and evaluation; Access log monitoring |
| Plan site specific Wednesday trainings | August 2012 - May 2013 | Technology, Site Principals | | Meeting calendars, agendas |
| Integrate District approved technology and use of approved technology tools with hands-on teacher training | 2012, and ongoing | Tech Mentors, Technology | | Meeting notes, training materials |
| Provide professional development on Project-based learning | June 2013, and ongoing | Superintendent, Educational Services, Technology, Tech Mentors | | Sign-in sheets, training materials, lesson plans |
| Provide professional development on Collaboration in the 21st Century Classroom | June 2013, and ongoing | | | |
| Provide professional development on Assessment in 21st Century Classrooms | June 2014, and ongoing | | | |
| Provide professional development about Thinking critically with data | June 2014, and ongoing | | | |
| Include technology training in new teacher orientation | August 2012, and annually | | | |

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.

In conjunction with the Superintendent, the Educational Services department will be the primary coordinator for implementation of the professional development components of this technology plan and will work collaboratively with the Technology Department to ensure consistency in quality and approach in the development of all training. Ongoing guidance and feedback will be actively sought through from the District's Technology and Curriculum and Professional Development Committees to develop and select appropriate workshops and trainings to meet staff needs.

Evaluation instruments will be developed and utilized by participants at the end of each training. Feedback from the evaluations will be compiled and shared with the Technology Coaches, Educational Services and Technology Department, and used to inform future staff development/training needs.

The directors of Educational Services and the Technology department will meet regularly with the Superintendent.

## 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:**

| Age of Computers in Ross Valley School District | |
|---|---|
| 5-10 Years Old | 344 |
| 3-4 Years Old | 23 |
| 0-2 Years Old | 92 |
| Total Number of Computers: | 459 |

**Elementary Schools**

The four elementary sites in the District each serve an average of 400 students. Grades K through 3 maintain a maximum of 20 students per class, while grades 4 and 5 average 26 students per class. Each K-2 classroom is equipped with at least one computer, a document camera and a projection system. The 3-5 classrooms average 3 desktop computers, a document camera and projection system. The wade Thomas and Manor schools have computer labs capable of accommodating a maximum of 20 students. The Brookside Upper lab is capable of accommodating 28 students, and the Brookside Lower campus was just setup with a 10 computer iMac lab. Manor school has a mobile cart housing 30 netbooks that travel from class to class, and Brookside Lower has a cart with 10 aging apple laptops. Our reports show that 80% of the elementary school computers are greater than 5 years old. Of those machines 29% have known issues with their motherboards and aren't expected to last much longer.

All elementary schools have PBX phone systems, centralized copiers and networked printers across campuses. Digital cameras and video cameras are available through the library and can be augmented from the District spares supply for projects requiring additional equipment.

**Middle School**

The White Hill Middle School serves approximately 610 students with an average class size of 25. Each classroom has at least two computers, a document camera and a projection system. White Hill has a 28 student computer lab, and a smaller space in the library capable of accommodating 18 students. There are 3 mobile laptop carts available to teachers at the school. One is equipped with 10 aging apple laptops and is used across the campus. A second cart is equipped with 16 netbooks and is mainly used for a robotics club after school program. The last cart was purchased in the 2011-12 school year and equipped with 23 Dell laptops for use in a

new math intervention program at the school. Each cart is equipped with a wireless access point, and a network printer.

**Existing Internet Access:**

**Internet**

The Ross Valley School District uses and optical-ethernet WAN service provided by AT&T through the Marin County Office of Education (MCOE). All sites are connected to the District Office via 10 Mbps connections and then to the internet via a 100 Mbps connection to MCOE. This structure allows for easy sharing of resources across sites, and easy collaboration. Additionally, as MCOE is effectively the internet provider, the District is able to use content filtering provided by MCOE. This is capable of being temporarily overridden as circumstances require by site administrators and teachers when sites like YouTube need to be accessed for instructional purposes.

The current configuration of circuits is proving to be a challenge as bandwidth speeds during heavy network usage are sluggish. Given the fact that AT&T is capable of making software only upgrades which will not require any hardware changes at the sites, we will need to increase our bandwidth in the very near future.

**Network**

The LAN network infrastructure at each site is operating at 100Mbps. Due to the age of the facilities however, there is a considerable amount of cabling which should be replaced. While the cabling is functional, many individual copper cable runs exceed 400 feet and several at Manor School in particular exceed 600 feet. Additionally, most of the existing wiring is surface mounted to the walls and is subject to occasional damage from teachers hanging items on the walls.

White Hill has a considerable fiber-optic infrastructure. This has proved helpful as many of the grade 6-8 textbook adoptions have significant online components, however, network congestion occurs when several classes simultaneously access video or multimedia resources on the internet. A bandwidth upgrade will likely resolve these issues.

**Existing Electronic Learning Resources: Software and Electronic Resources**

The District has adopted a Microsoft Windows based standard for computers. The standard load on the majority of our computers includes Microsoft Windows XP with MS Office 2003 Professional, Panda Cloud antivirus software and a collection of open source media-focused applications. Additionally, a collection of open-source applications are used for music, astronomy, and art. We are in the process of upgrading the MS Office suite to the 2007 version which we have under a volume license. Any new computers purchased within the past year have been deployed with Windows 7 Professional and the MS Office 2007 Suite.

Most day-to-day use of software or electronic resources centers around either using MS Office to produce original content, or using textbook adoption resources or other online resources to retrieve or evaluate information. Chief among these electronic resources are the streaming video provided via the CCOE Ed1Stop Portal and at the middle school EBSCO Middle Search.

Teachers, principals and District administrators also use DataDirector, a web based tool for the analysis of assessment data which is useful, among other things, for determining greatest areas of need and individualizing instruction. At present STAR data as well as Common Core Standards assessment data are accessible through DataDirector.

New software is continuously evaluated for use and judged against the following guidelines.

- Alignment to District adopted curriculum
- Engagement of the learner in the curriculum
- Ability to provide "on the fly" differentiation based on the individual learner's needs
- Return on investment

**Existing Technical Support:** The Ross Valley School District currently employs three full time technical staff. One Technical Support Specialist is primarily responsible for providing Tier I support as well as database administration and support for site and District administrative operations. One Technical Support Specialist is responsible for Tier II and III support. One Network Manager is primarily responsible for Tier III and IV support as well as site, District, and multi-agency technological interaction and support. Out of practicality and due to the physical and numerical size of the District, all technical staff perform varying degrees of each others' assignments, and function more as a team rather than a tiered organization.

The technology department is responsible for overseeing day-to-day operations of all computers, networking, telephony, internet access, email, website administration, SIS administration, policy administration, future needs assessment and planning, CSIS CALPADS and CALTIDES reporting, DataDirector and assessment system oversight, and supporting all issues involving the use of technology for curricular support such as Ed1Stop and EBSCO.

District support staff will, whenever possible, prioritize support of classroom instruction ahead of other support duties to insure that instruction is the primary focus of technology in the District. Key teachers and staff at each site who have demonstrated success at integration of technology into their daily activities are also called upon to informally function as Tier I curriculum support. Individual support incidents are mostly initiated and tracked via the District HelpDesk ticketing system, SchoolDude, an online service also used by the District maintenance department for managing maintenance work orders.

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:**

- Servers need to be replaced across the District. At the middle school we're running two Windows 2000 servers, one without enough RAM to allow remote connections. In order to ensure safety, consistency and ease of use for staff and students we need to upgrade our servers at each site with multi-core machines and Windows Server 2008.
- Internal and offsite storage, as well as backup software will need to be purchased to prevent any catastrophic data loss that could occur. All servers will be equipped with Raid arrays for redundancy purposes.
- Computers and/or mobile devices are needed to replace obsolete equipment and improve student-to-computer ratio

**Electronic Learning Resources Needed:**

- The Winnebago Spectrum software running in our libraries is no longer supported by the vendor. Research needs to be done to evaluate the best possible replacement and new software needs to be purchased.
- 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
- Our District website is confusing and needs to undergo a full re-design. In order to continue to expect good communication from our staff, we as a district must also provide a clear and well organized website through which we communicate to all invested parties.
- A management system for mobile devices will need to be implemented to streamline content and application distribution.

**Networking and Telecommunications Infrastructure Needed:**

- Bandwidth to our schools will need to be increased. We are currently providing a 10mbps connection to each location, and speed issues are evident during heavy traffic periods. Since our fiber Opt-E-Man network is already in place the upgrade can be done quickly and easily through our ISP. Cost permitting we'd like to upgrade each site to 100mbps.

**Physical Plant Modifications Needed:**

No physical plant modifications are needed at this time.

**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 in the form of tech mentors and "scouts" 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.

The Ross Valley School District is committed to maintaining a solid technological infrastructure to adequately address the curriculum and professional development components of this plan. In this section we will establish clear goals, objectives, and benchmarks for obtaining hardware, infrastructure, learning resources, and technical support. Due to the constant advancements in technology, the District is not able to fully predict the technology needed to implement these goals, objectives, and benchmarks over the next three years. This plan details infrastructure needs based on current technology; however, adjustments will be made to coincide with current technological trends.

| **Year 1 Benchmark:** By June 2013, the Ross Valley School District will have upgraded all its servers to support increased network activity and data storage. The District will increase its bandwidth to each school site to meet the demands of new web based tools. We will also evaluate, purchase and upgrade a replacement solution for our Libraries cataloging needs. | | |
|---|---|---|
| **Recommended Actions/Activities** | **Timeline** | **Person(s) Responsible** |
| Assess server specific needs of individual schools. | June 2012 | Technology |
| Purchase and configure servers. | July 2012 | Technology |
| Work with ISP vendor on quotes for increased bandwidth, then with the Business department to budget for the project. | July 2012 | Technology, Fiscal |
| Migrate data and promote new servers into DC roles. Test various functions and troubleshoot any issues that arise. | July - August 2012 | Technology |
| 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 | Technology, Site Administrators |

| | | |
|---|---|---|
| Purchase mobile devices and desktop computers to lower student to computer ratio. | By June of each year | Network Manager, Site Administrators |
| Provide sites with necessary IT and instructional technology support. | Fall 2012 and ongoing | Network Manager, Technology |
| Maintain IT documentation for all system administration tasks with details of software configuration, software licenses, accounts and passwords, and instructions. | Fall 2012, and ongoing | Network Manager, Technology |
| 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 with advanced management capabilities. | January 2013, and ongoing | Network Manager, Technology |
| 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, and Annually | Superintendent, Network Manager, Technology, Site Administrators |
| Offer a variety of instructional technology trainings throughout the course of the year to support District curricular goals | Fall 2012 - Spring 2013, and Annually | Network Manager, Technology |
| Meet with Library specialists to assess needs and review options for new resource management software. | September - November 2012 | Technology, Library Specialists |
| Obtain quotes from various vendors and work with the Business Department to budget for the expense. | December 2012 | Technology, Fiscal |
| Purchase, Install and begin testing software and various tasks involved with new implementation. | February - April 2013 | Technology |
| Train all users including Library specialists, teachers and administrators. | May - September 2013 | Technology |

| **Year 2 Benchmark:** By June 2014, the District will have upgraded their centralized storage capabilities to create redundant backups, with offsite backup storage options. | | |
|---|---|---|
| **Recommended Actions/Activities** | **Timeline** | **Person(s) Responsible** |
| Evaluate data backup requirements and space needed. Purchase hardware and necessary software to automate operations. | June-July 2013 | Technology, Fiscal |
| 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 | Technology, Site administrators |
| Purchase mobile devices and desktop computers to lower student to computer ratio. | By June of each year | Network Manager, Site Administrators |
| Provide sites with necessary IT and instructional technology support. | Fall 2012 and ongoing | Network Manager, Technology |
| Provide sites with necessary IT and instructional technology support. | Fall 2012 and ongoing | Network Manager, Technology |
| Maintain IT documentation for all system administration tasks with details of software configuration, software licenses, accounts and passwords, and instructions. | Fall 2012, and ongoing | Network Manager, Technology |
| 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 with advanced management capabilities. | January 2013, and ongoing | Network Manager, Technology |
| 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, and Annually | Superintendent, Network Manager, Technology, Site Administrators |
| Offer a variety of instructional technology trainings throughout the course of the year to support District curricular goals | Fall 2012 - Spring 2013, and Annually | Network Manager, Technology |

| | | |
|---|---|---|
| Evaluate existing equipment for replacement cycle | Spring 2014 | Network Manager, Site Administrators |
| Configure devices and program software. Test backup operations and evaluate efficiency over time. | August-October 2013 | Technology |
| Upgrade centralized storage capabilities, and continue the replacement of outdated and unsupported equipment. | By June 2014 | Technology |

| **Year 3 Benchmark:** Refresh hardware as budget permits. | | |
|---|---|---|
| **Recommended Actions/Activities** | **Timeline** | **Person(s) Responsible** |
| Refresh hardware as budget permits | July 1, 2014-June 2015 | Technology |
| 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 | Technology, Site administrators |
| Purchase mobile devices and desktop computers to lower student to computer ratio. | By June of each year | Network Manager, Site Administrators |
| Maintain IT documentation for all system administration tasks with details of software configuration, software licenses, accounts and passwords, and instructions. | Fall 2012, and ongoing | Network Manager, Technology |
| 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 with advanced management capabilities. | January 2013, and ongoing | Network Manager, Technology |
| 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, and Annually | Superintendent, Network Manager, Technology, Site Administrators |

| | | |
|---|---|---|
| Offer a variety of instructional technology trainings throughout the course of the year to support District curricular goals | Fall 2012 - Spring 2013, and Annually | Network Manager, Technology, District Technology Advisory Committee, Instructional Technology Coach |
| Continue to replace outdated and unsupported equipment as well as increase new mobile equipment into the classrooms, and staff development to support the increase of technology in the curriculum. | By June 2015 | Technology |

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

The Technology department will be the primary coordinator for implementation of the infrastructure, hardware, software, and technical support components of this technology plan. Ongoing guidance and feedback will be actively sought through from the District's Technology and Curriculum and Professional Development Committees to monitor the implementation process to ensure staff needs are met.

Feedback from the evaluations and helpdesk tickets will be compiled and shared with the leadership team on a quarterly basis. The directors of Educational Services and the Technology department will meet regularly with the Superintendent.

## 6. Funding and Budget

### 6a. List of established and potential funding sources.

**Established Funding Sources:**

- E-rate (Discount Program)
- Measure A (local bond measure passed in November 2009)
- Title I
- Title II
- Title III
- General Purpose Funds
- Special Education Program Funds
- Parcel Tax

**Potential Funding Sources:**

- PTA
- Marin Community Foundation
- Any new funding sources created through state and federal legislation
- Bill & Melinda Gates Foundation

Objectives to Secure Additional Funding Sources

- Continue to educate our Board of Trustees on total cost of technology ownership and life-cycle replacement costs, and the negative impacts of not funding replacements on our overall strategic goals.
- 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 Windows- and Linux-based netbooks and 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.
- Work with the SPARK Foundation to seek out in-kind donations of hardware, software and especially web services and applications from community members who work for, or have substantial investments in, high-tech companies.

- Assure that the Board develops line item accounts with adequate funding for technology salaries, hardware, software and staff development to assure success of the technology use plan.
- Work with the Board to create priorities on technology costs identified in this plan in the event that future year allocations cannot fund all technology objectives.

Corporate Technology Grants:

With more teachers receiving advanced technology training and increased integration of technology in the classroom, the potential for winning competitive corporate grants has increased. In the past few years, District teachers have received approximately $5,000 per year in the A+ for Energy and Best Buy grant programs.

- A+ for Energy Teacher Grants ($5,000 to $10,000 per teacher) Over $130,000 in awards for Bay Area teachers last year. Includes technology purchases for projects related to solar energy. Winners are allowed to re-apply. http://www.aplusforenergy.com
- Best Buys Tech Awards – $2,500 grants are given out every January to classroom teachers. The application is due in September of each school year. With two Best Buy stores in the county and multiple awards given from each store, teachers should be encouraged to apply.
  http ://communications.bestbuy.com/communityrelations/teach.asp

Discount Programs and Contracts:

- 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
- CDW-G Education – special pricing/discounts for schools. http ://www.cdwg.com/webcontent/profile/education.asp
- Federal E-RateProgram 20 percent to 90 percent discounts on approved telecommunications, Internet access, and internal connections costs. Basic E-Rate covers phone costs. Requires a county of state-approved Technology Plan. http://www.cde.ca.gov/ls/et/ft/eratemain.asp
- Free or Reduced-cost Professional Development and Technical Support Develop a program of teacher-initiated Professional Learning Networks based on Intel Teach Elements, Twitter, Ning and other Web 2.0 technologies, so that teachers can find free and low-cost technology solutions to improve teaching and learning. An example is the Educator's PLN at http ://edupln.ning.com/ .
- BTSA (Standard 9 & 16 Training) – Free professional development for new teachers. http ://mcoeweb.marin.k12.ca.us/es/BTSA/new_teachers.htm

- TechSETS – California's tech support for schools program, provides reduced-cost training and tech support resources, as an alternative to commercial tech support. http://www.techsets.org
- Hardware and Software Cost Savings Through Open Source: Approximately $150,000 of the annual cost of ownership for technology is spent on proprietary hardware (Apple computers) and software (from Apple, Microsoft and others). Recently, several consortia of international educators are trying to create educational technologies based on low-cost hardware and free, open-source software. Examples of these are listed below. If funding becomes restricted, these programs could provide us with very good alternatives:
- OLPC (One Laptop Per Child) – Although not yet available to US schools, the OLPC machine will be priced at about $200 for a wireless laptop with advanced networking capabilities and customizable, open-source operating system and software. http://laptop.org
- SchoolForge - SchoolForge's mission is to unify independent organizations that advocate, use, and develop open resources for education. We advocate the use of open texts and lessons, open curricula, free software and open source in education. Their software page lists hundreds of educational software applications Available from no cost. http://www.schoolforge.net
- Open Educational Resources, Open Content and Creative Commons – Increasingly, governmental and K-20 educational institutions are creating and sharing audio and video content for use by educators at no cost. The William and Flora Hewlett Foundation has provided seed money to fund these initiatives, which for the most part are still in the organizational stage, and have been generally focused until now on higher education. Our District is already taking advantage of freely available content (Calisphere) provided by the University of California. http://www.hewlett.org/Programs/Education/OER and http://www.calisphere.universityofcalifornia.edu

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

| Item Description | Year 1 2012-2013 | Year 2 2013-2014 | Year 3 2014-2015 | Funding Source Including E-Rate |
|---|---|---|---|---|
| **Infrastructure** | | | | |
| Opt-E-Man fiber bandwidth upgrades | $6,000 | $6,000 | $6,000 | General Fund, E-Rate |
| District and school site server upgrades | $30,000 | | | CSIS Fund |
| Internet Connection | $37,000 | $37,000 | $37,000 | General Fund, E-Rate |
| **Hardware** | | | | |
| PC and Laptop replacement | $60,000 | $60,000 | $60,000 | General Fund |
| External and Offsite Backup Solutions | $1,000 | $300 | $300 | General Fund |
| **Electronic Resources** | | | | |
| Aeries Student Information System | $13,904 | $13,904 | $13,904 | General Fund |
| DataDirector | $3,644 | $3,644 | $3,644 | General Fund |
| SOCS Web Hosting | $6,380 | | | General Fund, E-Rate |
| Destiny library/textbook/internet portal | $25,000 | $9,000 | $9,000 | General Fund |
| QSS | $17,000 | $17,000 | $17,000 | General Fund |
| **Personnel** | | | | |
| Information Literacy Dept. | $204,707 | $207,742 | $210,943 | General Fund |
| Information Technology Dept. | $207,299 | $217,916 | $226,054 | General Fund |

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

The District has identified 75% of its computers as being at least 5 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 6 year cycle. This means that at least 350 computers will need to be replaced during the three-year period covered by this plan.

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 paperlessly. 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.

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).

A summary of suggested life-cycle replacement policy is shown here:

| Type of Equipment | Est. Life Cycle (yrs) |
|---|---|
| Wired Network Equipment | 7 |
| Computer Workstations | 5 |
| Printers | 5 |
| Video Cameras | 3 |
| Other (projectors, scanners, etc.) - Average | 5 |

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 Network Manager, Business Manager, and 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 individual sites work closely PTA organizations to maintain and replace technology hardware, software and services.

District committee members regularly receive notification of grant opportunities through CTAP's website, MyCTAP.org. The Network Manager and Site Principals will review corporate grant opportunities and encourage and support grant writing by teachers throughout the school year. In March or April of each year the Network Manager and the Superintendent review 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 Network Manager 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, the Network Manager and Superintendent 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 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 Technology Department and the Director of Educational Services in collaboration with the Technology Advisory Committee, as needed. Any revisions to the plan will be presented to the Board of Trustees annually. The Technology Department 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. Input from the Round Table, the Technology Committee and curriculum committees will be taken into consideration for any modifications of the plan. Under the direction of the Superintendent and in conjunction with the Director of Educational Services will provide information and oversight to guide the Curriculum, Professional Development and Infrastructure components of this plan, while the Business Manager 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. To create a view of the overall impact of the Technology Plan data will be drawn from the following sources:

- Academic performance data
- CALPADS data
- CELDT data
- CST data
- Surveys of teachers, students and parents
- Classroom observations
- Database of technology integration activities and lesson plans
- Local benchmarks in Data Director
- Correlations to Common Core Standards
- EdTech Profile teacher proficiency data
- Documentation of staff development plans and objectives
- Professional development evaluation data
- Technology inventory data
- Help desk ticket records

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 the Data Director or other measures. Site

Administrators will examine data at the site, grade level, subject, teacher and student levels, and use Data Director 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 Technology 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. The Technology Committee will report to the to the Board of Trustees annually and make recommendations for the effective use of technology to support curricular goals. Communication will occur at meetings of the Board of Trustees, staff meetings, media and press releases, parent education workshops, 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 Technology Committee, as primary evaluator of the technology plan, will dedicate meetings each year to review progress in meeting benchmarks for each goal and objective. The Technology Committee annual review will highlight action items for teachers and administrators that remain to be carried out.

The Technology Department will provide input to the Superintendent's Cabinet on a regular basis relative to the progress made toward the goals and objectives of the plan. Along with the Director of Educational Services, adjustments to performance in order to achieve results may be made. Adjustments to the budget will be coordinated with the Business Manager. Cabinet meetings are held weekly and the staff frequently discusses ongoing progress of District goals.

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

The Technology Committee 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 staff will make occasional presentations and board reports during the year highlighting different aspects of plan implementation. Reports at all board meetings are 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

Ross 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 Golden Gate Computer** Society works in partnership with the Ross Valley School District to provide equipment and some school support services. Golden Gate Computer Society offers computer training services to the general public, including an evening beginner's special interest group, and a daytime Compu-Class structured around the needs of beginning computer users. They also offer groups focused on a variety of other computer applications, including Internet use. Their training facility is located on RVSD property, and is leased to them at a reduced rate as trade in-kind for their service to the District.

The **Technology Resource Center of Marin** in partnership with the Marin County Office of Education has become a model program providing special needs students the best that technology has to offer them to enhance their educational experience. The technology Resource Center is designed to serve as a hands-on Open Lab for educators, students and their families. The center has a Lending Library of software, low technology devices, adapted curriculum and resource information available for educators and families to check out.

The **Marin Literacy Program** 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.

**Technology Planning**

The Ross Valley School District used this information to guide our technology planning. To realize the benefits of technology, we must develop a plan for integrating technology into the curriculum. An effective technology plan is based on the shared vision of educators, parents, community members, and business leaders who have technological expertise. It ensures that technology strengthens existing curricula and supports meaningful, engaged learning for all students. It also specifies how the technology will be paid for and how its use will be supported.

> **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. The CEO Forum School Technology and Readiness Report: Key Building Blocks for Student Achievement in the 21st Century. Retrieved October 27, 2007 from http://www.ceoforum.org/downloads/report4.pdf

**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

**Blended Learning Environments**

As stated by iNACOL (2008) in "Blended Learning: The Convergence of Online and Face-to-Face Education":

> "…emerging models suggest that a large part of the future of education will involve providing content, resources, and instruction both digitally and face-to-face in the same classroom. This blended approach combines the best elements of online and face-to-face learning. It is likely to emerge as the predominant model of the future…"

Resources that guide the implementation of blended learning environments and mobile devices include:

- California eLearning Framework - California County Superintendents Educational Services Association (CCSESA) http://chat.scoe.net/downloads/CA%20eLearning%20Framework.pdf
- iNACOL Series of White Papers on Promising Practices explores some of the approaches being taken by practitioners and policymakers in response to key issues in online learning. The most applicable for K-8 students at the Ross Valley School District was Blended Learning: The Convergence of Online and Face-To-Face Education http://www.inacol.org/research/promisingpractices/NACOL_PP-BlendedLearning-lr.pdf
- "The Rise of K-12 Blended Learning" by Heather Staker is a white paper that profiles 40 blended learning programs in the United States. Models were categorized by the balance of online versus offline delivery of content and amount of teacher supervision at brick-and-mortar facilities or remote access. http://www.innosightinstitute.org/innosight/wp-content/uploads/2011/01/The-Rise-of-K-12-Blended-Learning.pdf

**Mobile Devices**

"...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 assessng 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

**Laptop Learning**

Many research reports indicate that when students have access to laptop computers in the context of a coordinated program of technology integration, higher student achievement is the result.

- Second-year study of a laptop program conducted by independent research firm Rockman *et al*, San Francisco.

During the 1997-1998 school year, Rockman *et al* tracked the experiences of teachers and students at selected pioneer schools during their second year of the Laptop Program. In these programs, participating students have full-time access to notebook computers both in school and at home. The second year study explores when and how the computers are used, their impact on teaching and learning, and participants' assessments of their experiences in the program. Findings point to significant learning and student and teacher accomplishments in skill development, applications of technology for schoolwork, and improved critical thinking.

Learning with Technology: The impact of laptop use on student achievement. Gulek, JC and Demirtas, H (2005). Journal of Technology, Learning, and Assessment, 3(2). Available from http://escholarship.bc.edu/jtla/vol3/2

A total of 259 middle school students were followed via cohorts. Laptop students showed significantly higher achievement, when compared to students without access to laptops, in nearly all measures (in English language arts, mathematics, writing, and overall grade point average achievement) after one year in the program. Cross-sectional analyses in Year 2 and Year 3 concurred with the results from the Year 1.

A Meta-Analysis of the Effectiveness of Teaching and Learning With Technology on Student Outcomes. Waxman, HC, Lin, MF, and Michko, GM (2003). Available from http://www.ncrel.org/tech/effects2/waxman.pdf

A study on the effects of teaching and learning with technology on student outcomes. That paper calculated 282 effect sizes were calculated using statistical data from 42 studies that contained a combined sample of approximately 7,000 students. The results indicate that teaching and learning with technology has a small, positive, significant effect on student outcomes when compared to traditional instruction.

Evaluation of Michigan's Freedom to Learn Program. The FTL Evaluation Study results are Available from http://www.ftlwireless.org/content.cfm?ID=505

Michigan's one-to-one Freedom to Learn initiative, implemented in the fall of 2004, reported increased student achievement. The 2005 Michigan Education Assessment Program (MEAP) shows improvement in students' math and reading scores.

Laptop Learning: A Comparison of Teaching and Learning in Upper Elementary Classrooms Equipped With Shared Carts of Laptops and Permanent 1:1 Laptops. Russell, M, Bebell, D, and Higgins, J (2004). Journal of Educational Computing Research, v30 n4 p313-330 Apr 2004

This research program explored how teaching and learning changes when 4th and 5th graders in Andover, Massachusetts were provided with their own laptop computer, rather than using shared laptop carts. Classrooms that were fully equipped with 1:1 laptops showed more technology use across the curriculum, more use of technology at home for academic purposes, less large group instruction, and nearly universal use of technology for writing.

Professional Development and Teaching Many research reports discuss how successful outcomes in technology-enriched schools can only come about with adequate teacher training.

Teaching with Technology: Creating Student-Centered Classrooms. Apple Classrooms of Tomorrow (ACOT), Judith Haymore Sandholtz, Cathy Ringstaff, David C. Dwyer, Apple Computer, Inc. (1997).

Findings from the first 10 years of the project include:

As teachers became more comfortable and competent with the technology, they began working in teams and across disciplines.

Classrooms became a mix of traditional and constructivist instruction.

Students became more collaborative.

Teachers altered their classrooms and daily schedules to permit students more time to work on projects.

Teachers began to develop new forms of assessment that were performance- and portfolio based.

Technology encouraged student-centered, cooperative learning.

Technology often inspires teachers to use more complex tasks and materials in their instruction

The influence of technology on teaching and learning occurs over an extended period of time.

Changing How and What Children Learn in School with Computer-Based Technology. Roschelle, JM, et al (2000). The Future of Children, 10(2), 76-101. Available from http://ctl.sri.com/publications/displayPublication.jsp?ID=114

Teachers are motivated to develop their own technology skills when professional development links technology applications to specific curriculum goals. This literature review reports that "numerous literature surveys link student technology achievement to teachers' opportunities to develop their own computer skills" (p.90). A system of support and reinforcement that embeds the use of technology "in a broader education reform movement" (p.76) is critical to a school's capacity to change. The authors. also identify the ways technology contributes to relations among teachers: By networking with mentors and other teachers electronically, teachers can overcome the isolation of the classroom, share insights and resources, support one another's efforts, and engage in collaborative projects with similarly motivated teachers (p.91).

Technology In The Schools: What the Research Shows. Metiri Group – commissioned by Cisco Systems (2006). Available from http://www.cisco.com/web/strategy/docs/education/TechnologyinSchoolsReport.pdf

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

specific schools and serious attention paid to leadership development, professional development for teachers, school culture, curricular redesign, and teacher preparation.

Classroom Instruction That Works: Research-Based Strategies for Increasing Student Achievement. Marzano RJ, Pickering DJ and Pollock, JE (2001).

Research into which teaching strategies raise student outcomes allows teachers to operate at advanced levels of effectiveness.

Students and Technology Many studies indicate that students respond positively in all measures of achievement to the engagement in learning that an integrated technology program can provide.

The Digital Disconnect: The widening gap between internet-savvy students and their schools. Levin, D, and Arafeh, S (2002) American Institutes for Research for Pew Internet & American Life Project. Washington, DC. Available from http://www.pewinternet.org/PPF/r/67/report_display.asp

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."

Why Use Technology? Peck, KL, and Doricott, D (1994). Educational Leadership, 51(7), 11-15. Available from http://www.ascd.org/readingroom/edlead/9404/peck.html

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

The enGauge framework for improving student outcomes suggests that using technology in the classroom to focus on higher-level thinking skills will necessarily lead to a measurable increase in student achievement.

Authentic Intellectual Work and Standardized Tests: Conflict or Coexistence? Newmman, FM, Bryk AS, and Nagaoka J (2001). Available from http://ccsr.uchicago.edu/content/publications.php?pub_id=38

This study of Chicago teachers' assignments in mathematics and writing in grades 3, 6, and 8, shows that students who received assignments requiring more challenging intellectual work also achieved greater than average gains in standardized tests in reading, mathematics and writing. The use of technology in the classroom presents great opportunities for introducing challenging intellectual work into the curriculum.

Student Videos Spark Dramatic Increase in Student Achievement, Apple Computer. Available from http://www.apple.com/education/profiles/escondido/

Project LIVE, an in-depth multimedia program of the Escondido Unified School District, in which students learn sophisticated video production techniques, has increased standardized test scores 10 to 30 points, according to school administrators. More information on the program is available from http://www.eusd4kids.org/edtech/project_live.html

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.

Technology mobility will be changing face of how Ross Valley schools begin to operate in the future. With the full wireless integration, administrators, teachers and students will have mobility that was not envisioned five years ago. With the use of iPads, Laptop computers, flip cameras, IPODs, and more, use of new technologies will become an expectation in the classroom.

Additionally cloud based services that are now easily available to students and teachers, as well as the provision of high-quality projection systems throughout District classrooms are creating easy-to-use rich content and distance learning opportunities for our curriculum.

Over 90% of District classrooms now have dedicated equipment allowing two-way audio-visual communications. In the next three years, we expect to expand global citizenship programs and distance learning opportunities for our curriculum in a number of ways:

**Streaming Video:**

Students at some sites have access to Discovery Education streaming videos through the ed1stop subscription service. Searches can be performed using key words or state standards. Each search produces a list of applicable standards and videos that meet those standards. The programs are broken into instructional clips. The clips can be streamed or downloaded to the teacher's computer for use at any time. Usage rights include saving the clips to a CD or DVD and using clips as part of student work. Studies show that streaming video used in the classroom can have a positive outcome on student achievement in a variety of subjects:

## LCD Projectors & Document Cameras

Document cameras are used at all sites and in all classrooms. They are also used to share images, maps, text book pages with the entire class and have become invaluable teaching tools. LCD projectors help make multiple technologies accessible to all students allowing teachers to present exciting web-based, powerpoint, keynote presentations, just to name a few.

## Robotics Club

The purpose of White Hill Robotic Club is to allow the students to familiarize themselves and learn the science, technology, and engineering involved in building robots. Students enter robotics competitions throughout the state and volunteer their services at local science fairs.

## Supplemental Distance Learning

RVSD currently provides access to following online supplemental distance learning opportunities for K-8 students:

- **Accelerated Reader -**Makes essential reading practice more effective for every student, personalize reading practice to each student's current level, manage all reading activities including *read to* , *read with* , and *read independently and* Assess students' reading with four types of quizzes: ***Reading Practice*** , ***Vocabulary Practice*** , ***Literacy Skills*** , and Textbook Quizzes.
- **Scott Foresman History-Social Science for California – A** standards driven, interactive program written specifically for California. Three instructional - text, digital content, and activities; K–5 students in California who are currently using it to learn history and social studies.
- **Ed1Stop -** a portal system of anywhere/anytime online resources available to teachers and students, including streaming video aligned with California Content standards.
- **Aleks** - a web based, artificially intelligent assessment and learning system. ALEKS uses adaptive questioning to quickly and accurately determine exactly what a student knows and doesn't know in a course.
- **FOSS** - California is a modular K-5 science curriculum that teaches science in interesting and engaging ways, while providing teachers in California with the resources they need to teach science effectively.

## Video Conferencing

**PORTS** - California State Parks PORTS program provides teachers and students with complete units of study and live video conferences. The Network Manager sets up the Polycom Teleconferencing system for sites using the system.

## Appendix J - Technology Plan Contact Information (Required)

Education Technology Plan Review System (ETPRS)
Contact Information

County & District Code: 21 - 75002

School Code (Direct-funded charters only):

LEA Name: Ross Valley Elementary

*Salutation: Ms.

*First Name: Eileen

*Last Name: Rohan

*Job Title: Superintendent

*Address: 110 Shaw Dr.

*City: San Anselmo

*Zip Code: 94960-1112

*Telephone: 415-454-2162

Fax: (415) 454-6840

*E-mail: erohan@rossvalleyschools.org

Please provide backup contact information.

1st Backup Name: Toni Beal

E-mail: tbeal@rossvalleyschools.org

2nd Backup Name: Sean Maher

E-mail: smaher@rossvalleyschools.org

* Required information in the ETPRS