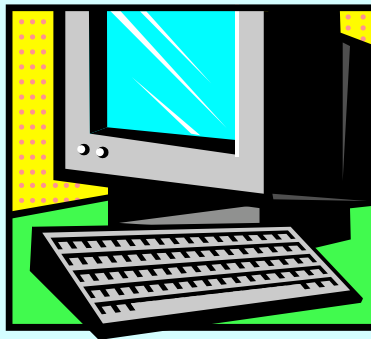


Vieja Valley  
Elementary School

**Technology Plan**

2009 – 2013



# Table of Contents

Technology Committee .....	1
Prologue: Why Now? .....	2
Technology Vision .....	3
Figure 1. Technology in an Elementary School .....	4
Technology Plan	
Network Infrastructure, Servers, Printers .....	5
Computers .....	6
Figure 2. Vieja Valley School Computer Inventory .	8
Software .....	9
Support Equipment .....	10
Staff Development .....	10
Evolution of Instruction .....	11
Schedule .....	12
Budget Summary .....	13
Implementation and Evaluation .....	15

# Technology Committee

The 2008-2009 Vieja Valley Technology Committee convened in the fall of 2008 with the goal of defining a technology plan for our school. The committee included teachers, administration, and parents.

The committee met regularly throughout the school year. Through our research, discussions, staff surveys, and a process of collaboration and compromise, this document was developed.

## Committee Membership:

Tim Barker	Teacher, 5 <sup>th</sup> Grade
Tairy Carter	Teacher, 4 <sup>th</sup> Grade
Kelly Johnson	Teacher, 5 <sup>th</sup> Grade
Andrea Lauderdale	Teacher, Kindergarten
Kirk Reeves	Teacher, 3 <sup>rd</sup> Grade
Manual Sanvictores	Parent
Lynn Seigel-Boettner	Teacher, 2 <sup>nd</sup> Grade
Judy Stettler	Principal
Greg Stevens	Computer Specialist
Carl Still	Parent

# Prologue: Why Now?

The technology environment at Vieja Valley School is excellent. We have a strong network infrastructure, an appropriate computer-to-student ratio, a good variety of software, and two computer labs supporting our students' educational needs. Our staff realizes that "computer education" has moved from the realm of enrichment, to a necessary and important component of core instruction. Our computer classes strive to provide students with the essential components within computer/internet function and responsibility, as well as providing them with the tools necessary to effectively and efficiently complete their classroom assignments.

However, a variety of issues currently confront our program that demand a comprehensive assessment, and decision-making based on the whole rather than the individual parts. By creating a plan, we believe we can maximize the impact of our expenditures, make timely transitions of hardware and software, and provide our students with the most up-to-date and appropriate "technologies" that support elementary school curriculum and middle school prerequisites.

Our plan addresses the following issues, together with several new revelations discovered during our planning process:

- What do we do with our older iMac computers?
- Our eMac computers now have an identified failure mode. What does that mean to our program?
- The Project Lab has no funding model. How can we support that Lab?
- Several of our software packages are beginning to fail. When should we replace or update them?
- How can we provide adequate training to our staff on such an extensive variety of "technologies" and new instructional methods?
- The entire field of educational technology is "exploding". How should we respond to the changes occurring in our profession?

# Technology Vision

Our School Vision embraces a culture at Vieja Valley that provides for the needs of our students through the continuing professional development of our staff. We are committed to an environment of sharing and mutual support for both new ideas and instructional strategies. We recognize that excellence in teaching can be pursued through new technologies as well as innovative ideas for delivering traditional teaching methodologies. We respect and appreciate the various strengths and interests of our staff. We believe that an elementary school education benefits from a variety classroom environments and teachers who pursue their passions.

Our Technology Vision is one component of our School Vision and is intended to support all of our students and staff.

Technology Vision:

- A campus which includes up-to-date and well maintained network infrastructure, computers, supporting hardware and an array of software to encourage the productivity, innovation, and enthusiasm of the 21<sup>st</sup> century educational environment.
- A student body that demonstrates through their accomplishments and behavior the benefits of a standards based, grade appropriate, constantly evolving curriculum of computer skills and technology instruction.
- A teaching staff supported by their administration and colleagues as each of us strive to grow, share, experiment, and innovate as the instructional opportunities and challenges inherent to 21<sup>st</sup> century educational resources continue to expand.
- A local community that benefits from the facilities and communications available through our school's technology and which financially contributes to the success of our technology program.

## Elementary School

- Reading
- Writing
- Math
- Good Citizenship
- Life-Long Learner
- Art
- Music
- P.E.

**TECHNOLOGY**

Figure. 1

# Network Infrastructure, Servers, Printers

As part of the campus “modernization” throughout the summer of 2003, our campus was rewired with CAT 5 cable. Additionally, a 24-port 100 MB switch was installed in each of the classroom quads, the office, and the library. During the summer of 2008, our internet service was adjusted as a cable modem and managed content filter were installed on campus. Our internet download speeds are now up to 10 MB/sec with an upload speed of 1 MB/sec. All of this equipment continues to work well. It is assumed that if problems occur with any of this equipment, the District Office would provide the funding for replacement or repair. As such, no further discussion of these basic components of our infrastructure is included in this plan.

In March of 2004, Vieja Valley installed our first xserve server. The primary functions of this server are central file sharing and hosting of the school’s website. With an assist from the attached surge protector and auxiliary power supply, this server has been running continuously for five years. A second xserve was installed in 2007. Its primary function is to provide net install image distribution to the campus. This server has also been running continuously since installation. There is no way to tell how long these servers will run error free. Planning for an eight-year life-cycle seems reasonable considering the importance of these machines. Our plan includes an evaluation of server function in anticipation of replacement during the 2011 - 2012 school year.

Our campus is home to three networked color printers and five networked LaserJet black-and-white printers. All five of the black-and-white (B&W) printers are operating past their expected life-cycle. Many teachers choose to use personal inkjet printers in their classrooms for much of their printing. As the B&W printers are retired, it is recommended that convenience, performance, and cost be evaluated to determine whether these printers are replaced, or if buying multiple personal B&W LaserJet printers for a service area would be preferred. Our plan includes budget for replacement of the B&W printers in the 2012 - 2013 school year.

Network printer ink cartridges and printer paper are considered School Supplies.

# Computers

The Computer Inventory (Figure 1) shows that our campus is home to 150 computers. 133 of these machines are being used for student instruction, a ratio of almost 1 computer for every 2 students. Unfortunately, many of the computers are older iMac models, and our core machine, the eMac, has a verified failure mode that has already claimed several machines.

With dwindling financial resources and the addition of the Project Lab in 2006, our previous model for computer replacement is unworkable. The following is our plan for replacement of our campus computers.

- Continue to use the older iMacs in classrooms as long as possible. They have excellent software for the primary grades, function well as word processors, can access our local area network, and do an acceptable job for taking AR tests online. They are just old, slow, and shouldn't be used for internet research.
- Redefine the mission of the eMac computers. **The eMac will be the long-term machine of the Project Lab.** In the near-term, eMacs may also be used to replace failed machines in the Computer Lab. Any eMac in a classroom will be used by students until such a time as it is needed to replace a machine in one of the labs.
- During the summer of 2009, purchase 20 iMac computers. These will be located in classrooms and will be primarily for student use. **Every classroom needs to have at least one up-to-date computer for student use.** Teachers without a laptop may choose to create an account for themselves on the new iMac in their classroom, but primarily this machine is for student use.
- During the summer of 2011, if the staff wants to continue with both the Computer Lab and Project Lab, the Computer Lab

machines will be replaced. The eMacs there will be moved to classrooms for student use until they are needed to replace a failed machine in the Project Lab. Prior to replacing the Computer Lab machines, an evaluation of one-to-one laptop programs will be conducted to confirm or adjust our school model of computer use and instruction.

Clearly, this new model for computer use and distribution around campus is far from perfect. Continued use of the older iMacs delays our transition to an OS X environment. The older machines will also demand more maintenance and support as many teachers have become unfamiliar with the older Mac OS. Additionally, teachers will be asked to use their laptops to run their classrooms. Initially, this change may be viewed as inconvenient and demand increased support to get everyone setup and comfortable. However, students will have classroom access to an up-to-date machine. **The Project Lab, which currently has no funding model, will now have long-term viability. The eMac failure crisis will be delayed substantially. And most importantly, this approach is the most cost effective method of maintaining our campus technology.**

As teachers begin to use their laptops in their classroom environment, it is expected that ad hoc wireless networks will emerge. The school will not “officially” support or maintain the proliferation of wireless networks. Like many of our new technologies, wireless will initially be an individuals “experiment”. A wireless campus will be considered at the same time as a one-to-one laptop program is considered.

Vieja Valley School Computer Inventory

13-Dec-08

Instructional Machines												
	iMacG0	Total-iMac	eMac	Slot iMac	Fruit iMac	Blue iMac	Bondl iMac	G3 Tower	G4 Tower	G5 Tower	Other	Projector
Lauderbach			1	1								
Burby			1	2		1		1				
			1				2					1
Evans			1									
Goffitz			1									
Gelet/Walsh			2	1							1-laptop	1
Seigel-Soutrner			1	1			1					1
Brown			1	2								
Ballou			1	2								
Recess			1	1								1-laptop
												1-9800.com
Riddiman			1	2	1							1-laptop
T-Carter			1	3	2							1-laptop
Johnson			1	1								
Barker			1	1					1	1		1-disc.cam
DCarter			1	3		1						
Heldak			1	5					1			1-9800.com
Computer Lab		1	29		4	2	1	1	1	1	1	1-Culbe
Project Lab		1	29									
GATE/Science			2									
Library												
Resource				2								
Total	0	2	76	27	7	7	4	3	3	1	3	9
Total Instructional Machines =		133										

Administrative Machines												
	iMacG0	Total-iMac	eMac	Slot iMac	Fruit iMac	Blue iMac	Bondl iMac	G3 Tower	G4 Tower	G5 Tower	Other	Projector
Computer Lab			1	1								
Library			1	1								
Itc			1									
Sullivan			1									
Holscomb			1									
Hedel												
Brown												
Blair				1								
Chapman			1									
Microsin						1						
Total	1	0	5	3	1	1	0	0	0	0	6	
Total Admin Machines =		17										
Total Computers @ VV =		150										

# Software

Software is what makes the computer work. Several of the software programs at our school are either obsolete or crash when used. It's time to update our software.

From an instructional perspective, it is important for students to experience a wide variety of computer programs in order to learn about various user interfaces, understand common features, and experience the unique capabilities of each program. An up-to-date computer without up-to-date software defeats much of the potential benefit the new machine. Students and teachers alike need to be able to select the most appropriate "tools" to accomplish their work. **Software compatibility throughout campus and with our community is important.**

We will continue to expand our use of online resources, open source programs, and shareware, but our core software suite would substantially benefit from the following upgrades.

**Our top priority, update our iLife and iWork software to the 2009 versions.** This should happen with the purchase of new machines during the summer of 2009.

Second, we need to consider upgrades of Microsoft Office and Photoshop Elements.

Third, we need to identify new programs for student use. The primary grades in particular need one or two more programs.

Finally, we need to maintain our Alexandria and Renaissance Place online resources.

Financial considerations will weigh heavily on selection of titles and the schedule for additional software purchases.

# Support Equipment

The purchase and distribution of support equipment, such as LCD projectors, document cameras, digital cameras, camcorders, smart boards, individual responders, selected individual software programs, etc., will be accomplished as necessary based on the needs and interest of the staff. It is understood that not all classrooms desire to be “early adopters” of new technology. **Our encouragement of technological innovation in the classroom is based on a model of demonstrated success in student achievement and student motivation in classrooms where new technologies are working.** Through this approach, we can deliver support equipment to classrooms when they will be used and when we have personnel available to help support classroom transitions.

# Staff Development

**Computers, hand-held devices, document cameras, and projectors don’t teach. Teachers teach!** However, if the operation of equipment is not understood and best instructional practices are not shared, then the interference to effective classroom teaching with technology becomes almost insurmountable. **We must support our teachers with a structured program of staff development focused on continuous improvement and the incorporation of “best practices” in the classroom.** This plan proposes regularly scheduled training sessions that fit in with our school wide plan to continue to learn and develop as professionals. These training sessions will be optional to all staff members who are already experienced in the area of training. Other trainings may be considered both by individuals and the staff as a whole. Attendance at the annual CUE conference is recommended for both 2010 and 2013.

# Evolution of Instruction

A technology plan would not be complete without some discussion and guidance regarding the anticipated impact on pedagogy and the resultant evolution of “best practices” in the classroom setting.

At Vieja Valley, we welcome this conversation when tempered by an overall perspective of elementary school goals, an appreciation of the variety of approaches that may be employed to achieve these goals, and respect for the diverse talents and strengths of the teaching professionals on our staff.

As we proceed with the implementation of this plan, we will explore how to identify, optimize, and share various teaching techniques that utilize technology. The specifics of our “evolution of instruction” cannot be defined at this time, but will emerge as technology-based teaching techniques are tested and refined. Clearly, this aspect of the plan demands careful consideration, substantial staff input, and an understanding of the scope and rate of change desired. Our plan schedule includes several milestones that will promote this process.

# Vieja Valley School Technology Plan Schedule 2009 - 2013

	2009												Jan	Feb	Mar	
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec				
<b>Create Tech Plan</b>	^-----^															
Tech. Committee Approval				*												
Staff Approval				*												
Site Council Approval				*												
Forward to PTA and District					*											
<b>Staff Training and Conferences</b>																
Monthly 45 min. Tech. Training				*				*	*	*	*	*	*	*	*	*
CUE Registration										*						
CUE Conference															*	
Monthly 15 min. Sharing				*				*	*	*	*	*	*	*	*	*
<b>2009 Purchase Hardware and Software</b>																
20 iMacs for Students in Classrooms								*								
80 Licenses for iWork 2009								*								
60 Licenses for iLife 2009								*								
Deploy Machines to Classrooms									*							
Purchase Flash Drive for Students 4-6								*								
<b>Remove MarkerGen Virus from Network</b>								^-----^								
<b>Discuss Concerns/Key Points of Evolution of Instruction</b>											^-----^					
<b>Identify and Agree to Strategy/Goals for Evolution of Instruction</b>																
<b>Revise Website - A Major Initiative</b>													^-----^			
<b>Evaluate Math Facts</b>																
<b>2010 Purchase Hardware and Software</b>																
Site Licenses for 1-2 Software Upgrades																
New Classroom Tools (TBD)																
<b>2011 Purchase Hardware and Software</b>																
1 Server																
Site Licenses for 1-2 Software Upgrades																
New Classroom Tools (TBD)																
30 Computers for Computer Lab OR																
120 Laptops for One-to-One																
Wireless Hardware for Campus																
<b>2012 Purchase Hardware and Software</b>																
4 B&W Printers																
20 Digital Cameras (class set)																
New Classroom Tools (TBD)																
<b>2013 Purchase Hardware and Software</b>																
New Classroom Tools (TBD)																
<b>Evaluate One-to-One Laptop Program</b>																
<b>Determine Appropriate Wireless for Campus</b>																

May-09

# Implementation and Evaluation

This plan is intended as a “living document” to be referred to and revised with each meeting of the Technology Committee. What’s working?, What’s not?, and How do we change it?, will be questions asked numerous times throughout the term of this plan. Visits to our sister schools will be required to see and experience what they are doing. Research of current trends and new technologies will be required. Cooperation, collaboration, compromise, experimentation, risk and reward, many of skills we strive to teach our students will be on display as we work towards the completion of this plan. Honestly, it will not be easy. However, the alternative is unacceptable.

Certainly, the responsibility and authority to implement this plan rests with the Principal. However, the best of intentions can be thwarted by financial difficulties. Many aspects of this plan are expensive. We will need the support of our PTA and our community. We are hopeful that the District will appreciate our efforts and help our plan succeed.

Most importantly, we have serious issues now. **We need to act immediately to put in place the upgrades required for the 2009 – 2010 school year.**

# Budget Summary

## (by School Year)

	<u>Estimated Cost</u>	<u>Anticipated Funding Source</u>
2009 – 2010		
20 iMacs	\$22,000.	Discretionary Grant
iWork 2009 – 80 Licenses	\$1,600.	Discretionary Grant
iLife 2009 – 60 Licenses	\$1,200.	Discretionary Grant/PTA
150 Flash Drives	\$900.	Student Council/PTA
CUE Conference 10 people (registration, rooms, gas, subs)	\$7000.	District Office
Anti-Virus Software and Licenses	\$150.	Site Funds
Renaissance Learning (AR & Math Facts)	\$900.	Site Funds
Alexandria (Support Contract)	\$500.	Site Funds
Repairs/Misc. Equipment	\$700.	Site Funds
Computer Specialist (700 hours)	\$30,800.	PTA
Year Total =	\$65,750.	
2010 – 2011		
Software Upgrades	\$3,000.	Site Funds / PTA
Classroom Tools	\$3,000.	Site Funds / PTA
Anti-Virus Software and Licenses	\$150.	Site Funds
Renaissance Learning (AR & Math Facts)	\$900.	Site Funds
Alexandria (Support Contract)	\$500.	Site Funds
Repairs/Misc. Equipment	\$700.	Site Funds
Computer Specialist (700 hours)	\$31,400.	PTA
Year Total =	\$39,650.	

	<u>Estimated Cost</u>	<u>Anticipated Funding Source</u>
2011 – 2012		
30 Computer Lab Computers (or 120 Laptops)	\$28,000.	PTA
Wireless Campus Hardware	\$4,000.	District Office
1 Server	\$3,000.	District Office
Software Upgrades	\$3,000.	Site Funds / PTA
Classroom Tools	\$3,000.	Site Funds / PTA
Anti-Virus Software and Licenses	\$150.	Site Funds
Renaissance Learning (AR & Math Facts)	\$900.	Site Funds
Alexandria (Support Contract)	\$500.	Site Funds
Repairs/Misc. Equipment	\$700.	Site Funds
Computer Specialist (700 hours)	\$32,028.	PTA
Year Total =	\$75,278.	

2012 – 2013		
4 – B&W Printers	\$600.	District Office
20 – Digital Cameras	\$2000.	PTA
CUE Conference 10 people (registration, rooms, gas, subs)	\$7,000.	District Office
Software Upgrades	\$3,000.	Site Funds / PTA
Classroom Tools	\$3,000.	Site Funds / PTA
Anti-Virus Software and Licenses	\$150.	Site Funds
Renaissance Learning (AR & Math Facts)	\$900.	Site Funds
Alexandria (Support Contract)	\$500.	Site Funds
Repairs/Misc. Equipment	\$700.	Site Funds
Computer Specialist (700 hours)	\$32,668.	PTA
Year Total =	\$50,518.	

**Four School Year Total = \$231,196.**

