

School Administrative District 8
Vinalhaven, Maine

Technology Plan

2015-2018

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1. **Community and Parental Involvement**: A broad representation of the school community was involved in the planning process by representation through the following individuals:

- Bruce Mailloux – Superintendent of SAD8
- Tim Kane – Principal, Vinalhaven Public School
- Kathy Warren – Business Manager/Parent
- Pat Paquet – Elementary School Teacher
- Scott Candage – School Librarian
- Rene Jones – School Board member/Parent
- Randy Pitts – Technology Coordinator

2. **Vision**: Information and digital technology has permeated virtually every facet of our day-to-day lives and culture. There is truly no haven for the responsible and productive citizen who would otherwise choose to ignore or shield themselves from the effects or use of these technologies. Our vision at SAD8 is to instill in each student and faculty member the ability, curiosity, and desire to capture and incorporate existing and future technologies into their personal and professional lives – essentially, to become information technology life-long learners.

3. **Goals**

a. Discussion: Vinalhaven School recently adopted the Computer Science Teachers Association (CSTA) Standards to steer information technology learning. Within these standards there are five strands:

- Computational Thinking,
- Collaboration,
- Computing Practice and Programming,
- Computers and Communication Devices, and
- Community, Global, and Ethical Impacts

b. The CSTA standards recommends a three level model. Level 1 covers grades K-6, Level 2 covers grades 6-9, and Level 3 covers grades 9-12

- Level 1: A significant emphasis has been placed on developing foundational skills at lower grade levels. Students in pre-kindergarten are exposed to computing through the use of laptop computers and tablets. By the time students reach kindergarten the use of computing devices are a regular part of the curriculum, and by second grade students are 1:1 and remain so for the duration of their primary and secondary school years. The focus for this group is to establish rudimentary, yet productive understanding of computing topics.
- Level 2: On the lower end of Level 2 (grades 6-8) students continue to develop their understanding and skills with computing devices. The focus is

on using computers for problem solving and presentation (digital artifacts) of ideas. Emphasis is given to the social aspect of computing, given the trend toward Web 2.0 forms of sharing and collaboration. By grade 9 most students take their first focused computer science course and start working toward graduation requirements. These courses provide in-depth study and opportunity for application of specific topics ranging from digital imaging and desktop publishing to web design and computer programming.

- Level 3: The topic of Level 3 in the CSTA is “Applying Concepts and Creating Real-World Solutions” and the CSTA recommends three sub-levels of instruction: Computer Science in the Modern World, Computer Science and Principles, and Topics in Computer Science. Many of the standards and performance indicators contained at this level are addressed at lower levels. However, at this moment, focused studies at Level 3 is a target rather than a reality.
- c. To stimulate our progress toward the CSTA standards Vinalhaven School is participating in the ‘Exploring Computer Science Project’, supported by the Maine Mathematics and Science Alliance. Under this program, the 2015-2016 school year will offer targeted instruction based entirely on CSTA standards. One of our faculty members will attend an off-site training event during the summer of 2015, followed by four weekend events over the next school year. It is the goal

4. **Necessary Technology**

- a. The state of computer hardware at Vinalhaven Schools is better than it has ever been. There is an abundance of recent generation computer hardware dispersed throughout the school available for all grade levels and faculty members. Grades 2-12 are 1:1, with MacBook’s assigned in grades 2-5 and MacAir’s assigned in grades 6-12.
- b. All faculty members and administrative staff are issued a school laptop computer.
- c. During the 2014-2015 school year Apple iPad tablets were deployed for use in lower primary grades. This program will expand with the budgeted purchase of 15 more tablets in 2015-2016.
- d. In 2017 the current MLTI contract will expire. Vinalhaven School plans to participate in any follow-on initiative and will purchase existing MLTI laptops to replenish aging MacBooks.

- e. General purpose application software, such as word processing, spreadsheet, presentation and database, has been standardized throughout the school. Microsoft Office 2013 (2011 for Apple) was purchased and deployed in 2014. The Apple version of Office will be upgraded 2013 as the newer version becomes available.
- f. All MLTI laptops include software programs for Computer Aided Design (CAD), audio and video editing, web development, desktop publishing, music composition, and image manipulation. Our Windows based versions of these type of applications are antiquated and require updating. This will be addressed in the 2016-2017 budget.
- g. The district network has 1000BaseT throughout. 802.11g/n wireless access points are distributed at various locations to ensure a wireless signal is available at any physical point in the school. A guest wireless network will be implemented the summer of 2015.
- h. The schools internet backbone is currently 50Mbps but is scheduled to be upgraded to 300 Mbps the summer of 2015.
- i. Separate network servers are in place that support e-mail and web, student and faculty file and print services, Student Information System (SIS), superintendent accounting and file functions, video surveillance, library data information services, FTP services, and media streaming. Two of these servers are budgeted for upgrade or replacement during the 2015-2016 school year.
- j. Network printers are readily available throughout the school. Copy machines have been incorporated into the school's network and are now an available printing resource for students and staff members.
- k. Implementation of a digital telephone and voice mail system in 2005 further expanded the contact-availability of staff and faculty to the local community. This system is now a priority replacement item within the next three years..
- l. Implemented in 2005, the NutriKids database program has streamlined menu preparation (compliant with state nutritional guidelines), as well as facilitating the daily administration of lunch accountability.
- m. The existing video surveillance system was enhanced in 2014-2015 with the addition of three more cameras. This capability will be further expanded with two more cameras this fiscal year as well as an upgrade to the security server.
- n. Below is an inventory of existing hardware and software.

Personal Computers On-hand

Qty	OS	Device
2	Android	Galaxy Tablet
2	Chrome OS	ChromeBook
15	iOS	iPad
128	MacOS	MacAir
77	MacOS	MacBook
4	MacOS	iMac
25	Windows 7	Desktop
4	Windows 7	Laptop
257		

Printers On-hand

Qty	Make	Model	Connection	Color
1	Canon	i9900	USB	Yes
1	Epson	R200	USB	Yes
2	HP	LJ 1100N	Network	No
5	HP	LJ 1300N	Network	No
6	HP	LJ P2035N	Network	No
2	HP	LJ Pro400	Network	No
1	HP	LJ 2200N	Network	No
1	HP	LJ CP3525	Network	Yes
2	HP	LJ M401n	Network	No
2	Ricoh	5002N/4002N	Network	No

Current Network Configuration

Qty	Type	Make	Other
13	Airport Base Sta	Apple	CISCO 802.11g AP
1	Backbone	E-Line	50Mbps
1	Firewall/Router	JoeBox	Linux Firewall/Router
8	Multi-Media	AppleTV	TV and AppleTV
1	NAS	TeraStation	Linux Backup server
6	NetCams	Axis	Security
1	Server	Dell T3400	Win 2008 Alexandria & file server
1	Server	Dell 2800	Win 2003 – DC & file server
1	Server	DakTech	Win 2003 – Security server
1	Server	DakTech	Win 2008 –ADS Accounting
1	Server	Dell	Win 7 HVAC

1	Server	Dell	Win 2000 Telephone/Voicemail
1	Server	HP DL380	Win FTP & backup server
1	Server	Primo	Linux Web & Moodle server
8	Switches	CISCO	1Gbps/100Mbs
1	TaskServer	MacMini	MLTI task server
1	Video Conf	Tandberg	
1	Video Conf	Promethean/CISCO	SX10

Imaging Equipment On-hand

Qty	Type	Capability
8	Digital Still Camera	>3mp
3	Digital Video Camera	HD, Mini-DV & Dig8
5	Flatbed Scanner	> 4800 dpi
9	LCD Projector	> 1:300/1000 lm
1	Slide/Negative Scan	35mm, slide, 50mm

Proprietary/Licensed Software in Use

Purpose	Manufacturer	Version
Accounting	ProFund	ADS
Assessment	NWEA	Measures of Academic Progress (MAP
Desktop/Laptop O/S	Microsoft	Windows 7
Desktop/Laptop O/S	Apple	OS X (10.8-10.10)
Domain Controller	Microsoft	Windows 2008
Educational	Sunburst/BoardMaker	Various programs and ver
E-Mail	OpenText	FirstClass v9
File/Appl Servers	Windows	Win 2000, 2003, 2008
Filtering Services	Sentinaire	Web Based
Foreign Language	Rosetta Stone	Spanish (Latin American)
HVAC	Circon	Visual Integrator 2.0
Library	Alexandria	6.3.2
Literacy	Lexia	Core 5
Literacy	Scholastic	SRI
Meal Acct and Prep	NutriKids	7.0
Multi-Media	Adobe	Creative Suite 2
Multi-Media	Apple	iLife 11
Multi-Media	Adobe	Premier
Photo Editor	Adobe	PhotoShop CS2
Productivity	Microsoft	Office 2013/2011
Productivity	Apple	iWork 09

Remote Desktop	ThinSoft	WinConnect Server VS2
Security	AXIS	CameraStation 3.41
Special Education	MSB	Adori
Special Education	Dragon	Naturally Speaking
Student Management	InfinteCampus	E.1501.3
Web Management	Adobe	Contribute 6.5

5. Collaboration with Adult Literacy Service Providers: Not Applicable

6. Strategies for Improving Academic Achievement and Teacher Effectiveness:

- a. Local funds and/or grants will be used to improve academic achievement, including the technology literacy of all students by:
- Purchasing hardware and software to support the goals and objectives of the plan
 - Participation in 21st Century laptop program
 - Participation in ‘Exploring Computer Science Project’
 - Maintaining Internet access to support the goals and objectives of the plan
 - Providing staff training to support the goals and objectives of the plan
- b. Our funds will improve the capacity of all teachers to integrate technology effectively into curricula and instruction by:
- Providing training opportunities for teachers in the use of technology.
 - Providing support staff to assist teachers in using and integrating technology into the curriculum.

7. Integration of Technology with Curricula, Instruction, and Assessment: Our technology, including software and electronically delivered learning materials, will be integrated into curricula, instruction, and assessment by implementing the CSTA standards based model, as outlined previously.

8. Technology Type and Costs and Coordination with Funding Resources:

2015-2016

Goal	Item	Qty	Cost @	Total	Funding Source
Replace security server	Server	1	\$2000	\$2000	Local
Install Security Cameras	Axis Cameras	2	\$1500	\$3000	Local
Expand iPad deployment in elementary school	Apple iPad & cases	13	\$538	\$7000	Local
Upgrade Internet Connection	300Mbps 1	1	n/a	n/a	MLTI

Upgrade site router/firewall	Edge Router	1	\$400	\$400	MLTI
Upgrade MacBook HD	Transcend SSD	40	\$50	\$2000	Local
Upgrade domain controller	Hard drives, memory and OS	1	\$1000	\$1000	Local
MLTI Laptop Program	6 th grade & HS MacAirs	70	\$250	\$17,205	Local
MLTI Laptop Program	Staff and grades 7 and 8	58	\$250	\$14,500	MLTI
Replace Video Cameras	Video Camera	2	\$500	\$1000	Local
Replace Network Printers	Network Printer	2	\$500	\$1000	Local
Replace LCD Projector	LCD Projector	1	\$1000	\$1000	Local

2016-2017

Goal	Item	Qty	Cost @	Total	Funding Source
Upgrade Creative Suite s/w on lab computers	TBD	TBD	TBD	TBD	TBD
Upgrade Telephone/VoiceMail system	TBD	1	\$30,000	\$30,000	eRate & Local
Upgrade mail server & upgrade software	Server, server OS, and mail program	1	\$4000	\$5000	Local & Grant
Replace network printers	Network Printer	2	\$500	\$1000	Local
Replace LCD Projector	LCD Projector	1	\$1000	\$1000	Local
MLTI Laptop Program	6 th grade & HS MacAirs	70	\$250	\$17,205	Local
MLTI Laptop Program	Staff and grades 7 and 8	58	\$250	\$14,500	MLTI

2017-2018

Goal	Item	Qty	Cost @	Total	Funding Source
Replace primary domain controller	Server & OS	1	\$4000	\$4000	Local
Replace business server	Server & OS	1	\$4000	\$4000	Local
Replace network printers	Network Printer	2	\$500	\$1000	Local
Replace LCD Projector	LCD Projector	1	\$1000	\$1000	Local
MLTI Laptop Program	6 th grade & HS MacAirs	70	\$250	\$17,205	Local
MLTI Laptop Program	Staff and grades 7 and 8	58	\$250	\$14,500	MLTI

9. Supporting Resources: Our supporting resources (services, software, print resources, and other electronically delivered learning materials) that ensure successful and effective uses of technology are:

- a. Technology Staff

- b. Software, Hardware, and Networks
- c. Proprietary Software Vendors
- d. Maine Laptop Initiative (MLTI)
- e. Maine State Library Network (MSLN)

10. Steps to Increase Accessibility

- a. All students and teachers will have increased access to technology by:
 - Providing regularly scheduled and open computer lab times
 - Providing 1:1 computing ratio for students and staff
 - Providing Internet access to all computers
 - Providing printing capabilities and training for all users
 - Providing hardware and software that is reliable and user-friendly
 - Providing software that support curriculum goals
 - Providing technology staff to support curriculum goals
 - Providing training to staff to support curriculum goals
- b. Local funds will be used to purchase software and hardware and acquiring training to be used for an integrated student database system. The data to be tracked will begin with basic demographics and expand to include tracking of student achievement in various academic areas, with plans to fully expand into a Maine Learning Results proficiency tracking system in the near future.
- c. SAD8 will ensure that teachers are prepared to integrate technology effectively into curricula and instruction by:
 - Providing technology training to teachers as requested
 - Seeking the support of individual departments and the technical coordinator in generating ways to integrate technology into the curriculum
 - Administrative support for curriculum committees to identify and encourage technology integration
 - Finding and using existing Internet curriculum resources locally
 - Ongoing training of the technical staff

11. Promotion of Various Curricula and Teaching Strategies that Integrate Technology: Various curricula and teaching strategies that integrate technology effectively into the general curriculum and instruction will be identified based on a review of relevant research and promoted to lead to improvements in student academic achievement.

12. Professional Development: Ongoing, sustained professional development for teachers, principals, administrators, and school library media personnel will be provided to further the effective use of technology in the classroom and library media center.

13. Innovative Delivery Strategies: The development and use of innovative strategies for the delivery of specialized or rigorous courses and curricula through the use of

technology, including distance-learning technologies, will be encouraged.

14. Accountability Measures: This plan will be reviewed and revised annually. The technical coordinator is tasked with maintaining a record of progression toward goals.