Contoocook Valley

Regional School District

SAU #1

Technology Plan

Plan Cycle – July 1, 2016 – June 30, 2019

Table of Contents

District Mission Statement

To provide opportunities and inspire our learners to explore interests, pursue new knowledge and skills, learn about self and others, and give of oneself to the greater community.

Vision

In the ConVal community, all learners will achieve academically, act thoughtfully, and contribute to the larger society.

Core Beliefs

These beliefs are those ideals, thoughts, and attributes that we feel must exist for our students, our community, and our society to thrive.

- We believe that "***All must mean All***." We must provide the opportunity for each and every student to reach his/her maximum potential.
- We believe that there is not only one path to student success and achievement.
- We must offer students a variety of learning opportunities to achieve his/her version of success.
- Although we value the unique characteristics of each of our schools, we believe that all ConVal schools should provide a guaranteed, viable curriculum and be equitable in terms of learning opportunities and services.
- We believe that ConVal should continue to participate and "give back" to our local communities.
- ConVal is committed to full inclusion for students with disabilities. Conval will ensure teachers and staff are supported to ensure all students have access to rigorous curriculum within the general education setting and by presuming competence of all students.
- We believe that understanding the learning process is paramount to our work, we are committed to knowing when students are and are not learning, and we believe that it is our responsibility to ensure that learning and student growth occur.
- We believe that positive relationships are the fundamental building block for learning.

District Overview

The Contoocook Valley Regional School District (ConVal) is located in the Monadnock region of southwestern New Hampshire. The school district's central office is located in Peterborough, the hub of a nine-town district. The District spans an area of 250 square miles. Distance and isolation create huge challenges for ConVal. Technology is seen as a potential equalizer for schools separated by miles of country roads.

The school district services approximately 2,200 students from nine towns. There are eight elementary schools distributed throughout the District, two middle schools, and one regional high school. ConVal High School is a member of the two district Region 14 Applied Technology Center (ATC).

The Technology Plan Committee is committed to a bi-annual review of progress. That review may result in adjustments of stated goals which will be captured collectively in the Appendix.

This plan captures the desired future for our District's interactive program that intentionally integrates technology effectively and consistently in every grade level and across the district.

Technology Mission Statement

The ConVal School District embraces technology as a vehicle accessible to all, enabling each learner to become a contributing member of a changing, technological society. The effective use of technology provides students and employees enhanced opportunities to succeed in school and the workplace. The Technology mission supports the District mission by integrating existing and emerging technologies into all aspects of our educational organization.

Technology Plan Committee Members

- Brendan Minnihan, Superintendent of Schools
- Marian Alese, Business Administrator
- Brian Grattan, District Systems Administrator
- Kevin Carne, Systems Administrator - ConVal High School
- Matthew Hale, Systems Administrator - Antrim Elementary School & Great Brook School
- Jon White, Systems Administrator - South Meadow School
- Tristan Emery, Systems Administrator – Bennington (Pierce) Elementary School, Dublin Consolidated School, Francestown Elementary School, Greenfield Elementary School, Hancock Elementary School, Peterborough Elementary School and Temple Elementary School.
- Helfried Zrzavy, Technology Integrator – ConVal High School
- Sarah Hale, Technology Integrator – Great Brook School
- Marcia deSteuben, Librarian Media Specialist/Technology Integrator – Peterborough Elementary School
- Nancy Weil, Technology Assistant – Peterborough Elementary School
- Greg Leonard, Teacher – ConVal High School
- Deb Coyne, Teacher – ConVal High School
- Eric Rothhaus, Teacher – Peterborough Elementary School
- Michael Zrzavy, Student – ConVal High School
- Rich Cahoon, School Board Member - Antrim

Access to Technology

Goal 1: Provide and maintain reliable computer hardware in labs and classrooms for use by staff and students.

Objective A: Define a replacement cycle that meets the technology needs of the district while maintaining a fiscally responsible budget. The cycle that best meets our needs is a four (4) year cycle.

Objective B: Implement 1:1 computing initiative for middle and high schools.

Objective C: Replace speciality lab/cart hardware on a four-year scheduled cycle in order to ensure compliance with state standards.

Objective D: Replace elementary computer lab/cart hardware on a four-year scheduled cycle in order to ensure compliance with state standards.

Objective E: Replace elementary classroom and library/media center computers on a four year scheduled cycle to ensure that each room has a computer capable of meeting professional and curricular needs.

Objective F: Replace school/district-issued laptops on a four year scheduled cycle to ensure that each room has a computer capable of meeting professional and curricular needs.

Objective G: Implement 4-6 computer pods in elementary classrooms.

Objective H: Create a plan to repurpose devices replaced via the replacement cycle to provide additional technology access in elementary classrooms.

Objective I: Maintain and leverage improved student-faculty communication through our restricted access student Google Apps email accounts.

Objective J: Continue to assign appropriate privileges to staff to post content on the school's web sites to improve access to content and information.

Objective K: Continue to leverage our investment in our free Google Apps for Education domain for students by adding services as appropriate in addition to our ongoing work with Google Mail, Docs, Drive, Calendar, and Picasa.

Objective L: Improve teacher and student access to online resources by researching and implementing web-filtering services.

Objective M: Improve content delivery mechanisms by instructing teachers on how to use our Wordpress (blog) and Google Sites web services.

Objective N: Maintain the existing ConVal Google Apps student domain and the SAU 1 Google Apps staff domain to present a consistent yet separate portal, application suite and delivery system for all stakeholders.

Goal 2: Implement network/infrastructure solutions to support the requirements of district initiatives.

Objective A: Investigate and implement a district wide WAN solution.

Objective B: Pilot and install a remote access connection software to allow remote maintenance and troubleshooting.

Objective C: Purchase and install upgraded network infrastructure devices to support faster and more reliable connections.

Objective D: Install additional wireless access points to support full coverage areas at all buildings.

Objective E: Research and implement a standardized filtering system to restrict access to prohibited websites and inappropriate content and streamline content delivery.

Objective F: Develop a replacement cycle for infrastructure equipment based on warranty length and manufacturer end of life.

Objective G: Improve access to SAU level resources through expanded use of the SAU wide area network.

Objective H: Update network wiring/infrastructure at BES, DCS, FES, GES, HES and TES

Goal 3: Ensure staff has access to the technology necessary to support the instructional and curriculum needs of the total school population

Objective A: Continue support of legacy devices such as interactive whiteboards, projectors and printers.

Objective B: Define the technology needs for the various staff positions throughout the District.

Objective C: Develop adequate yet responsible budgets to provide technology necessary for those positions

Objective D: Provide training to facilitate and support the various technology platforms and tools used throughout the district.

Objective E: Develop online training resources and make them available to staff for self-paced training opportunities.

Action Plan – Access to Technology

Goal 1: Provide and maintain reliable computer hardware in labs and classrooms for use by staff and students.						
Strategy	**Schools**	**Year 1**	**Year 2**	**Year 3**	**Budget Implications**	**Goals**
Define replacement cycle	All	✓			None	1A,1D,1E, 1F, 1H & SP 4.11.1
Replace computer hardware based on 1A	All	✓	✓	✓	$156K Y1 $160K Y2 $275K Y3	1D, 1E, 1F & SP 4.11.1 & SP 4.11.2
Elementary classroom pods	Elem.		✓	✓	$25.5K Y2 $25.5K Y3	1G SP 4.11.2
Plan to repurpose older technology	All	✓	✓		None (possible revenue stream)	1H
1:1 Device Rollout	CVHS	✓			$26,900 (infrastructure)	1B SP 4.11.2
	CVHS		✓		$125,000	1B SP 4.11.2
	CVHS			✓	$123,000	1B SP 4.11.2
	SMS	✓			$25,000 (infrastructure)	1B SP 4.11.2
	SMS		✓		$73,000	1B SP 4.11.2
	SMS			✓	$36,000	1B SP 4.11.2
	GBS	✓			$13,540	1B SP 4.11.2
	GBS		✓		$43,000 [Grade 7 & 8]	1B SP 4.11.2
	GBS			✓	$26,000 [Grade 6]	1B SP 4.11.2
1:1 Ancillary Support	CVSD		✓		$12,000 (Insurance, AC Adapters,	1B SP 4.11.2

					Batteries) ~$42,000 (Cases)	
	CVSD			✓	$72,000 (Insurance, AC Adapters, Batteries) ~$15,000 (Cases)	1B SP 4.11.2
1:1 Support - Develop Student/Parent Agreement Form	CVSD	✓			$0.00	1B SP 4.11.2
Continued access to online resources for students & staff	All	✓	✓	✓	$5K Y1 (PD??) $5K Y2 (PD??) $5K Y2 (PD??)	1I, 1J, 1K, 1L, 1M & 1N

Goal 2: Implement network/infrastructure solutions to support the requirements of district initiatives.						
Strategy	**Schools**	**Year 1**	**Year 2**	**Year 3**	**Budget Implications**	**Goals**
Investigate and implement WAN solutions (redundant addl ISP circuit in each location/building)	All	✓	✓	✓	$0 Y1 ~$75K Y2 ~$75K Y3	2A, 2C, 2G & 1M SP 4.11
Remote Access/Maintenance	All	✓	✓	✓	$0 Y1 ~$7.5K Y2 ~$7.5K Y3	2A, 2B, 2C, 2G & 1M SP 4.11
Internal infrastructure equipment upgrades	CVHS	✓	✓	✓	$6K Y1 (load balance) ~$165K Y2 (infra) ~$25K Y3 (10GB backbone)	2E & 1M 2C & 2D SP 4.12.1
	SMS		✓		~$100K Y2 (infra)	2C & 2D SP 4.12.1
	GBS		✓		~$40K Y2	2C & 2D SP 4.12.1
	AES		✓		~$4K Y2	2C & 2D SP 4.12.1
Research and implement filtering solutions throughout district	All	✓	✓	✓	~$12K Y1 (CVHS) ~$36K Y2 (SMS/GBS/PES) ~$25K Y3 (remaining schools)	2E SP 4.12.1

Develop infrastructure equipment replacement cycle	All	✓	✓	✓	$0 Y1 (develop) $?? Y2 $?? Y3	2C, 2D, 2E & 2F SP 4.12.1
Update network wiring/infrastructure	BES, DCS FES, GES, HES, TES	✓	✓		~$75K Y1 (3 schools) ~$75K Y2 (3 schools)	2C, 2D, 2G & 2H SP 4.12.1

Goal 3: Ensure staff has access to the technology necessary to support the instructional and curriculum needs of the total school population						
Strategy	**Schools**	**Year 1**	**Year 2**	**Year 3**	**Budget Implications**	**Goals**
Continued support of classroom/lab technology equipment	All	✓	✓	✓	~$25K Y1 ~$25K Y2 ~$25K Y3	3A SP 4.12.1
Define technology needs for staff based on position	All	✓			None	3B, 1A & 1D
Create adequate/fiscally sound budgets to support district technology initiatives	All	✓	✓	✓	None	3C
Develop and provide training based on standardized equipment and technology tools	All	✓	✓	✓	~$5K Y1 ~$5K Y2 ~$5K Y3	3D SP 4.13
Develop online reference training for staff	All	✓	✓	✓	~$5K Y1 ~$5K Y2 ~$5K Y3	3E SP 4.13

ICT Literacy

Goal 1: Develop a district-wide K-12 technology experience

Objective A: Develop, implement, and evaluate a 9-12 ICT curriculum and/or set of competencies.

Objective B: Develop, implement, and evaluate a 5-8 ICT curriculum and/or set of competencies with benchmarks at grade 8 that connect to the 9th grade curriculum/competencies.

Objective C: Develop, implement, and evaluate a K-4 ICT curriculum and/or set of competencies with benchmarks at grade 4 that connect to the 5th grade curriculum/competencies.

Goal 2: Implement a Library Learning Commons model throughout the district.

Objective A: Develop a budget for materials, furniture, and equipment to create flexible spaces for collaborative learning.

Objective B: Develop a Virtual Learning Commons for each school, available 24/7.

Objective C: Examine staffing and scheduling at each level.

Objective D: Work with teachers and administrators to optimize Learning Commons to address curricular goals.

Goal 3: Expand learning opportunities with online learning.

Objective A: HS students will have access, as educationally necessary, to various online learning options such as VLACS[1] as well as "virtual classrooms" maintained by their teacher(s).

Objective B: MS students will, as educationally necessary, use an online "virtual classroom" to interact with their teachers, access content, and turn in work.

Objective C: ES students will use online applications for project-based units that utilizes a teacher-managed dashboard.

Objective D: ES will explore a feasible implementation of Google Apps for Education for K-4 or some subset of elementary grades, as determined by elementary educators.

[1] Virtual Learning Academy Charter School- http://vlacs.org/

Action Plan – ICT Literacy

Goal 1: Develop a district-wide K-12 technology experience						
Strategy	**Year 1**	**Year 2**	**Year 3**	**Resources**	**Budget Implications**	**Goals**
Develop, implement, and evaluate a 9-12 ICT curriculum and/or set of competencies.	✓	✓	✓		$0.00	1A SP 4.13
Develop, implement, and evaluate a 5-8 ICT curriculum and/or set of competencies with benchmarks at grade 8 that connect to the 9th grade curriculum/competencies.		✓	✓		$0.00	1B SP 4.13.1
Develop, implement, and evaluate a K-4 ICT curriculum and/or set of competencies with benchmarks at grade 4 that connect to the 5th grade curriculum/competencies.			✓		$0.00	1C SP 4.13.1
Develop and convey expectations and procedures for 1:1 computing to relevant users.	✓	✓	✓	Best practices	$0.00	1A, 1B, 1C SP 4.13.1

Goal 2: Introduce and implement a Learning Commons model throughout the district.						
Strategy	**Year 1**	**Year 2**	**Year 3**	**Resources**	**Budget Implications**	**Goals**
Develop implementation and sustainability plans, including budgets for Learning Commons	✓	✓	✓		$0.00	2A, 2C SP 4.14.2

Transformation of physical spaces into flexible learning areas.	✓	✓	✓		Unknown	2A, 2C SP 4.14
Develop baseline survey and evaluative tools to assess educational impact of Learning Commons	✓				$0.00	2D
Design, implement, and maintain a virtual Learning Commons	✓	✓	✓		$0.00 (unless there is a subscription cost)	2B SP 4.14

Goal 3: Expand learning opportunities with online learning.						
Strategy	**Year 1**	**Year 2**	**Year 3**	**Resources**	**Budget Implications**	**Goals**
HS students will have access to various online learning options such as VLACS as well as "virtual classrooms" maintained by their teacher(s).		✓	✓		$0.00 (unless a subscription service is chosen)	3A SP 4.15
MS students will use an online "virtual classroom" to interact with their teachers, access content, and turn in work.	✓	✓	✓		$0.00 (unless a subscription service is chosen)	3B SP 4.15
ES students will use online applications for project-based units that utilizes a teacher-managed dashboard.	✓	✓	✓		$0.00 (unless a subscription service is chosen)	3C SP 4.15
ES will explore a feasible implementation of Google Apps for Education for K-4 or	✓	✓	✓		$0.00 (unless a subscription	3D SP 4.15, SP4.16.3

some subset of elementary grades, as determined by elementary educators.					service is chosen)	

Professional Development

Goal 1: Provide instructional staff with a metric for technology integration that addresses student technology competencies and benchmarks, and incorporate NETS into district PD goals.

Objective A: Design or adopt an existing metric for technology integration for instructional staff that aligns with K-12 technology competencies, NETS-S, AASL, and CCSS.

Objective B: Develop district PD goals and competencies that encompass standards outlined in the NETS-T.

Objective C: Develop district PD goals and competencies that encompass standards outlined in the NETS-C and NETS-A.

Goal 2: Offer coordinated in-district technology workshops that insure that staff receive timely training at all levels of expertise.

Objective A: Library & Instructional Technology Staff (LITS) determine areas of technology instruction and support for new and veteran teachers and coordinate delivery of in-district training.

Objective B: District personnel determine areas of technology instruction and support for new and veteran non-instructional staff and coordinate delivery of in-district training.

Objective C: LITS provide ongoing resources to facilitate learning and edu tech PD to address the needs of teachers, paraprofessionals, administrators, technology coaches, and computer technology educators.

Goal 3: Provide targeted training to prepare classroom teachers for working in a 1:1 environment at middle and high school levels.

Objective A: Develop best practices guidelines for working in 1:1 classrooms at middle and high school levels.

Objective B: Provide general training on best practices to all building staff.

Objective C: Provide comprehensive small group training on best practices to staff who are entering their first year of operating in a 1:1 classroom.

Objective D: Continue to update best practices guidelines based on actual experience operating in a 1:1 environment.

Action Plan – Professional Development

Goal 1: Provide instructional staff with a metric for technology integration that addresses student technology targets, and incorporate NETS-T, NETS-A, and NETS-C into district PD goals.						
Strategy	**Year 1**	**Year 2**	**Year 3**	**Resources**	**Budget Implications**	**Goals**
LITS provide instructional staff with technology standards and benchmarks for students (NETS-S, AASL, CCSS).	✓	✓	✓	National Education Technology Standards for Students; American Association of School Librarians; Common Core State Standards	$0.00	1A SP 4.13.5
LITS provide instructional staff with self-assessment tools tied to technology standards and benchmarks (NETS-T, TIM).	✓	✓	✓	National Education Technology Standards for Teachers; Technology Integration Matrix	$0.00	1B Sp 4.13.5 SP 4.13.7
LITS provide administrators with self-assessment tools tied to technology standards and benchmarks (NETS-A, CoSN).	✓	✓	✓	National Education Technology Standards for Administrators; Consortium for School Networking	$0.00	1C SP 4.13.5 SP 4.13.7
LITS incorporate standards and benchmarks (NETS-C, AASL) into practice and align to Danielson.	✓	✓	✓	National Education Technology Standards for Coaches; American	$0.00	1C SP 4.13.5

				Association of School Librarians		
Submit metric to District Evaluation Committee for consideration and alignment with Danielson.	✓	✓	✓	Asst. Superintendent, PD Committee	$0.00	1B, 1C SP 4.6 SP 4.13.5

Goal 2: Offer coordinated in-district technology workshops that insure that staff receive timely training at all levels of expertise.						
Strategy	**Year 1**	**Year 2**	**Year 3**	**Resources**	**Budget Implications**	**Goals**
Develop (or adopt an existing) and administer a survey to determine areas of support needed by new teachers and non-instructional staff.	✓	✓	✓		$0.00	2A, 2B SP 4.7.6
Develop (or adopt an existing) and administer a survey to determine areas of support needed by veteran teachers and non-instructional staff.	✓	✓	✓		$0.00	2A, 2B SP 4.7
Based on the results of survey(s), create training modules for areas in need of support.	✓	✓	✓		$0.00	2A, 2B SP 4.7.3 SP 4.13.4
LITS provide regular trainings to support new initiatives throughout school year.	✓	✓	✓		$0.00	2C SP 4.7 SP 4.13.6
LITS develop online, self-paced training modules for common technology subjects.	✓	✓	✓		$0.00	2C SP 4.7 SP 4.13.6

Goal 3: Provide targeted training to prepare classroom teachers for working in a 1:1 environment at middle and high school levels.						
Strategy	**Year 1**	**Year 2**	**Year 3**	**Resources**	**Budget Implications**	**Goals**
Middle and High LITS members visit other NH 1:1 schools	✓				PD Funds	3A SP 4.7
Create online best practices knowledge base	✓				$0.00	3A, 3B SP 4.13
LITS provide general training during "Tech" staff meetings	✓	✓	✓		$0.00	3B, 3C, 3D SP 4.13
LITS provide specialized training sessions during PD days.	✓	✓	✓		PD Funds	3C SP 4.7 SP 4.13
LITS provide additional, optional, PD opportunities outside of normal school hours.	✓	✓	✓		PD Funds	3B, 3C, 3D SP 4.7 SP 4.13
At the end of the year, interview/survey staff about their experiences implementing the 1:1 environment.		✓	✓		$0.00	3D

Community Collaboration

Goal 1: Provide parents with technology expectations regarding their children, and dedicate technology resources to aid in monitoring students' progress.

Objective A: Provide parents & students with Student Information System (SIS) accounts for monitoring of student progress

Objective B: Establish baseline of technology and network availability off-site of school grounds

Objective C: Provide a baseline of expectations to parents when it applies to student devices and cell phone usage at school

Objective D: Provide parents with access to electronic correspondence with teachers, faculty, and staff

Objective E: Encourage teachers to create and maintain classroom websites for parents to visit.

Goal 2: Promote and support parent and community involvement in our schools by expanding public communication resources

Objective A: Raise awareness of low-cost Internet service available to eligible families in the district

Objective B: Update and maintain school websites with current information such as events and meeting minutes

Objective C: Collaborate with PTO to engage the community and support technology-related efforts

Objective D: Explore collaboration with town libraries to help promote after-school/off-site access to technology and support library programs/technology efforts to help students/families.

Objective E: Explore collaboration with local service groups to explore opportunities such as mentoring, program support, and job training.

Objective F: Investigate and implement public open wireless on school grounds, outside of school hours.

Objective G: Provide computer training for senior citizens in the community in conjunction with the Peterborough Recreation Department.

Goal 3: Engage and facilitate collaboration across multiple schools

Objective A: Develop a mentor program where high school students work with middle and elementary students to support technology (training, proper use, expectations, use of technology in upper grades, etc).

Objective B: Create a user-friendly online environment for faculty, staff, and students to share and exchange ideas and resources.

Action Plan – Community Collaboration

Goal 1: Provide parents with technology expectations regarding their children and dedicate technology resources to aid in monitoring students' progress						
Strategy	**Year 1**	**Year 2**	**Year 3**	**Resources**	**Budget Implications**	**Goals**
SIS Parent/Student Accounts	✓	✓	✓	Responsible person/s at school level	$0.00	1A
Creation/maintenance of teacher websites	✓	✓	✓	Technology support staff, Teaching staff	$0.00	1D, 1E, 2B SP 2.5
Survey town libraries and community centers for Internet availability	✓	✓	✓	Librarians, technology staff	$0.00	1B, 2D SP 2.5
Review current school policies regarding personal device use and, if deemed necessary, develop a District Policy	✓	✓			$0.00	1C
Include student device use rules on school websites	✓	✓	✓		$0.00	1C

Goal 2: Promote and support parent and community involvement in our schools by expanding public communication resources						
Strategy	**Year 1**	**Year 2**	**Year 3**	**Resources**	**Budget Implications**	**Goals**
Train staff members on school's website maintenance and provide ongoing training	✓	✓	✓		$0.00	1E,2B SP 2.5
Establish correspondence with parents in regards to	✓				$0.00	1D, 2A SP 2.5.1

reduced cost Internet options						
Investigate and implement outside wireless coverage at each school to provide off-hours community access.	✓	✓	✓		$TBD	1B,2A,2F SP 2.5
Implement and maintain community open access Internet at each school.	✓	✓	✓		$0.00	1B,2A,2F SP 2.5
Meet annually with PTO groups at each level to discuss technology programs throughout the district.	✓	✓	✓		$0.00	2C SP 2.5.8
Meet annually with representatives of local service groups to determine what learning opportunities they may be able to provide.	✓	✓	✓		$0.00	2E SP 2.3
Initiate a dialogue with town libraries to establish mutually beneficial partnerships on technology topics. (i.e. Internet access for 1:1, and E-Rate applications)	✓				$0.00	2D SP 2.2 SP 2.5
Invite local libraries to run an informational kiosk during annual open house and/or parent evenings.	✓	✓	✓		$0.00	2D SP 2.2
Collaborate with the Peterborough Recreation Department in providing computer training for senior citizens.	✓	✓	✓		$0.00	2G SP 2.2 SP 2.3

Goal 3: Engage and facilitate collaboration across multiple schools						
Strategy	**Year 1**	**Year 2**	**Year 3**	**Resources**	**Budget Implications**	**Goals**

Provide email accounts for students to enable online collaboration with faculty and staff as determined by educational need	✓	✓	✓		$0.00	3B
Identify HS students interested in building-level computer support and mentoring. Train them in basic support.	✓	✓			$0.00	3A SP 2.3
Provide opportunities for interested HS students to perform support and mentoring at elementary and middle schools.			✓		$0.00	3A SP 2.3

Annual Review Process

A regular review of progress made towards achieving the goals of the Technology Plan, as well as the continued viability of those goals, is important to the overall success of the plan. The ConVal School District has established the following review schedule.

Informal Monthly Review

The District's Information Technology (I.T.) team will review progress towards meeting the goals of the Technology Plan during one of their bi-weekly meetings each month. The purpose of this review will be to document progress towards Plan goals, and report that progress back to the Technology Committee.

Formal Quarterly Review

The District's Technology Committee will meet quarterly to review progress towards Plan goals as reported by the I.T. team. Based on these reports, the Committee will determine whether to consider a goal met. Additionally the Committee will review unmet goals to determine their continued viability.

Based on these reviews, the Committee will generate a status report and, if necessary, make recommendations of goals that need to be updated due to changing conditions.

Appendices:

- Annual Review Process
- ANYTIME/ANYWHERE LEARNING POWERED BY ONE-TO-ONE COMPUTING
- NETS-S - The ISTE National Educational Technology Standards and Performance Indicators for Students
- NETS-T - The ISTE National Educational Technology Standards and Performance Indicators for Teachers
- NETS-A - The ISTE National Educational Technology Standards and Performance Indicators for Administrators
- NETS-C - NETS-C - ISTE NETS for Technology Coaches
- TiM - Technology Integration Matrix
- GBEF – Acceptable Use Policy : Staff
- EHAA – Internet Safety And Responsible Use Policy For Students

ConVal School District Proposal for

ANYTIME/ANYWHERE LEARNING POWERED BY ONE-TO-ONE COMPUTING

(Original Document Found Here)

PURPOSE

This proposal seeks to achieve three interrelated goals for students and teachers of the ConVal School District:

- Equity of devices available to students across grade levels
- Access to foundational tools for learning and teaching, both at school and at home
- Digital age learning through transformative technology integration

By definition, one-to-one computing provides each enrolled student with a device that allows them access to software and online resources, digital course materials, and digital textbooks at school and at home. During the school day, it is a move away from reliance on shared computer labs and teacher-centered pedagogy and toward classroom computing and student-centered learning. Beyond the school day, one-to-one computing makes anytime/anywhere learning possible.

One-to-One — Device access at School and at Home
Students in designated grades at the middle schools and high school are issued a device and use it both at school and at home. The device is assigned to the student for the duration of his/her time at the school (GBS/SMS/CVHS). As a result:

- Students have access to the device for school work, in and out of school.
- Student are accountable for the device, including the responsibility of keeping the device charged.
- The District owns, and therefore retains control over, the device.
- The standardization of platform benefits students, teachers, and technology staff.

HISTORY

The ConVal School District has consistently and incrementally increased access to digital tools for instruction and learning. District schools have kept abreast of emerging technologies, utilizing a range of platforms and devices in recent years. PC, Mac, Linux, iOS, and Chrome operating systems on desktops, thin clients, laptops, iPads, and Chromebooks have populated labs throughout the district. The district has made strides in expanding access to online resources, teacher-student communication, assignments, and schoolwork in its implementation of Google Apps for Education. The district has taken a cautious approach, however, towards implementation of a one-to-one model even though this has been part of technology plans in the past. Now, with more than ten years of research,

there are compelling indicators that one-to-computing has a positive impact on student learning in multiple content areas and student assessment.

RESEARCH

The benefits of anytime/anywhere computing have been studied and tracked for more than a decade. As early as 2000, the U.S. Department of Education studied the multi-year impact of the anytime/anywhere concept at the middle school level and concluded that participating students became more creative, more collaborative, and better writers.

Probably the most comprehensive study to date is the one conducted by Project RED. *Revolutionizing Education Through Technology: The Project RED Roadmap for Transformation* surveyed 997 schools across the country and measured 22 independent variables that were grouped into 11 education success measures. The key findings of the study were that the introduction of one-to-one computing produced cost savings, improved instruction, had a positive impact on attendance, dropout rates, and school culture, including reductions in disciplinary actions.

The majority of respondents (69%) from all grades reported that high-stakes test scores greatly or somewhat improved. At the high school level, 66% of respondents reported that dual or joint enrollment in college-credit courses greatly or somewhat increased, and nearly half (47%) reported that AP course enrollment greatly or somewhat increased. The report concluded that “across all measures, leaders of schools with a 1-to-1 computer ratio report improvements in student outcomes that are superior to those from leaders of schools with higher student-computer ratios.”

A study of pedagogical practices in 2013 showed that “teachers…in a one-to-one computing environment had greater implementation regarding constructivist pedagogy pertaining to higher-order thinking skills, collaborative learning strategies, and differentiating instruction.”

In broader terms, the study recommended placing computers into every student's hands, to use them whenever possible and pedagogically appropriate, to make certain that teachers and administrators are properly trained, and, most importantly, to ensure that all stakeholders share a consensus view on what the one-to-one computing implementation should accomplish. Without these factors in place, the study cautioned, it would be difficult to achieve the factors that make student computers genuinely transformative.

Another study conducted by the University of Kentucky’s UCEA Center for the Advanced Study of Technology Leadership in Education reported a range of successes and some failures, but emphasized that “there are many more cases that support the academic benefits of one-to-one computing. Improvements in writing, literacy, science, exam scores, and GPAs all have been noted in various research studies.”

The NCEA study goes on to state: “The strength of the students’ access and use of technology was a consistent positive predictor of students’ reading and mathematics scores, with students’ use of their laptop at home as the strongest implementation predictor of reading and math scores.” Teachers in a one-to-one classroom are more likely to build digital instruction into their practice, utilize tools for personalized learning, conduct formative and summative assessments, and model proper digital citizenship. Beyond the classroom, one-to-one computing facilitates learning between school and home and achieves a high measure of equity for all students. Several other studies arrive at similar conclusions.

OVERVIEW OF PROPOSAL

To bring one-to-one computing to students in grades 5 to 12, considerations take into account several criteria, among them:

- Devices that provide students with access and the resources they need for anytime/anywhere computing.
- Implementation plan that is cost-effective and sustainable for the foreseeable future.
- Infrastructure in school buildings that will adequately support the implementation.
- Professional development for teachers to prepare them for and support them during the anticipated instructional shifts.

Chromebooks

While each platform and device has its strength, Chromebooks have presented the District with a particularly solid option with regard to one-to-one computing. There is a competitive field of Chromebook manufacturers which keeps the cost low and provides purchasing options. Chromebooks are approximately one third the cost of laptops or iPads, there is no software to install, nor any updates to apply. Chromebooks are easily managed via an online administration dashboard with the option of personalizing settings for individual users or groups of users.

The Chromebooks that have been in service since 2013 have been in high demand and have stood up well to student use. Chromebooks are a natural fit for Google Apps for Education (GAFE). Students have been able to take standardized tests (NWEA and SBAC) on Chromebooks with minimal impact on curriculum delivery.

Teacher laptops have all the functionalities of a Chromebook, so this initiative does not require teachers to adopt new devices.

Professional Development

Teaching in a one-to-one environment will require a shift in instructional practice, and adequate support through PLCs, inservice training, and professional development activities are key to making this program successful. The faculty’s collective commitment to a one-to-one model is critical for success. Technology staff, integrators, librarians,

and early adopters in each building will, with administrator support, be instrumental in ensuring that all teachers are well-supported in their efforts to provide a consistent, equitable, and positive experience in digital learning.

The International Society for Technology in Education (ISTE) outlines 14 Essential Conditions necessary to effectively leverage technology for learning. Among these conditions is "Ongoing Professional Learning." It advises that technology professional development, like non-technology PD, should occur within learning communities. It has to be differentiated by learning needs, to facilitate active engagement by participants, and to be recurrent. Finally, it should build upon past learning rather than only occurring once, be aligned with desired curriculum standards, and be rooted in learning and teaching needs rather than the technical aspects of a particular tool.

The current ConVal School District Strategic Plan (draft) outlines goals for faculty with specific focus areas on technology benchmarks (4:11-17). Coordinating PD for one-to-one computing with current and ongoing district PD will be necessary. In the meantime, technology staff will develop and deliver professional learning opportunities for teachers along a timeline that both precedes and accompanies the implementation phase.

Policies and Procedures

The introduction of a one-to-one model is an opportune time to review and, if needed, refresh district policies, procedures, and expectations for responsible use of technology. Before the initial rollout of devices, the District should conduct a thorough review of all district technology-related policies and student agreements.

Specialty-Use Labs

It is important to note that, while Chromebooks will address the majority of student productivity needs, one-to-one computing will not eliminate the continued need for other lab-based technology as dictated by particular courses and curricula. The high school, for instance, will maintain labs for courses such as graphic design, videography, music, or engineering and design that require specialty software and more robust platforms. Likewise, the middle schools will retain computers for any curriculum-based projects that require installed software.

IMPLEMENTATION OPTIONS

The three implementation options that follow are predicated on the assessment and improvement of the existing wireless infrastructures at ConVal High School, Great Brook School, and South Meadow School, respectively.

Year	Option 1	Option 2	Option 3
2016-17	Infrastructure Improvements, Professional Development, Evaluation Metrics		
2017-18	2 grades each at HS, MS	2 grades each at HS, MS	1 grade each at HS, MS
2018-19	2 remaining grades at HS, MS	1 grade each at HS, MS	1 grade each at HS, MS
2019-20		1 grade each at HS, MS	1 grade each at HS, MS

2020-21			1 grade each at HS, MS

Note: Because high school students do not move in uniform cohorts as middle schoolers do, but are enrolled in different courses, high school implementation will remain asymmetrical until fully completed.

Implications for Learning and Teaching

The choice of implementation schedule will determine how rapidly changes can occur in learning and teaching. Here are some factors:

- Expanded use of foundational productivity and collaboration tools (Google Apps for Education)
- Adoption of a shared online learning management system across district schools (e.g. Google Classroom)
- Blended learning options that combine classroom instruction with at-home learning components
- Transition to further differentiated and personalized learning opportunities
- Support for transition to competency-based learning at the middle and high school levels
- Professional development for technology staff specific to device and management options
- Ongoing PD for teachers regarding device operation and technology-enabled pedagogy
- Transition to online textbooks and Open Educational Resources (OER)

BUDGETARY IMPLICATIONS

Use of Currently Deployed Chromebooks

Within the high school and middle schools we currently have 266 Chromebooks deployed and being used on a consistent basis. Some of these devices will be reaching their end of life (EOL) cycle within the next two years. In order to keep costs down during the implementation period (SY16-17 through SY18-19), the devices already in the schools will become the spare/replacement devices for SY17-18 and SY18-19 with new replacement purchases (1 cart/30 devices MS and 2 carts/60 devices HS) beginning in the SY19-20 school years.

Replacement Cycle Offsets

Based on current inventory replacement projections, in SY17-18 there are 115 student devices in the MS/HS including 31 Chromebooks that are set to reach their replacement date. Based on previous years purchase prices, to replace those devices with Chromebooks would result in an estimated net savings of $28,370.00 for SY17-18.

The estimates for SY18-19 and SY19-20 have around 175-200 devices per year to replace which include specialized labs so while there will be a net positive offset, it will be less than the SY17-18 initial year. Additionally, there will be additional cost savings through software subscriptions that cannot be projected at this time.

Location	Type of Device	Quantity	Est. Replace $	Total $
CVHS	Laptops	64	$650.00	$41,600.00
CVHS	Desktops	18	$800.00	$14,400.00

GBS	Desktops	2	$800.00	$1,600.00
GBS	ChromeBooks	31	$300.00	$9,300.00
			Total	$66,900.00
Replace with ChromeBooks				
Location	Type of Device	Quantity	Est. Replace $	Total $
CVHS	Chromebook 14”	64	$370.00	$23,680.00
CVHS	Chromebook 14”	18	$370.00	$6,600.00
GBS	Chromebook 11”	2	$250.00	$500.00
GBS	Chromebook 11”	31	$250.00	$7,750.00
			Total	$38,530.00
			Net Savings SY17-18	$28.370.00

Additional cost implications and offsets will include, among others:

- **ancillary equipment: cases, extra power cables (for charging, as needed, at school)**
- **insurance plan options (excluding cost to FRL families)**
- **potential savings due to the adoption of online textbooks and Open Educational Resources (OER)**
- **envisioned reduction in general-use PC-based labs, at their points of renewal, in favor of Chromebooks**
- **reduction in cost for photocopying assignments and assessments**

EVALUATION

The ConVal School District’s evaluation of one-to-one computing will be linked to the original goals spelled out in the Purpose section. Technology staff will develop surveys and rubrics that will evaluate the following:

- baseline data of device ownership and access, prior to implementation
- device ownership and access, after implementation
- frequency of device use (‘how often do students and teachers use technology for learning and teaching?’)
- type of device use (‘what do students and teachers do when they engage in anytime/anywhere learning?’)
- depth of cognitive work enabled by such use (‘are learning technologies being used for deeper learning or merely low-level thinking work?’)

Continuous metrics, including account activity, are provided via Google Apps Administration (management dashboard). In addition, specific evaluation tools will be developed during 2016-17 school year, among them:

- Infrastructure Rubric: To assess the schools' capacities for implementing one-to-one computing programs, the resources available, and the context in which the one-to-one computing program will be implemented.
- Teacher Survey: To capture evidence about the types of learning activities that occur in the classroom, who is using technology, how technology is being used, and what type of resources are being used for instructional purposes.
- Student Survey: To assess students' perceptions of their experiences with one-to-one computing.
- Parent Survey: To assess parents' perceptions of their students' experiences with one-to-one computing

For an example of such a comprehensive evaluation approach, see the St. Helena School Unified School District Report.

IMPLEMENTATION TIMETABLE

SY	Infrastructure	Professional Development	Device Rollout	Evaluation
2016-17	Assessment and upgrade of wireless infrastructure at CVHS, SMS, GBS.	• Present anytime/anywhere concept • Share 1:1 long-term plan and rollout schedule • Demo device use • Introduce Google Classroom as LMS option • Prepare for phase-in in selected grades • Additional professional development for LITS	No 1:1 rollout.	Evaluate current policies regarding computer use. Establish baseline data on equity, access, and digital age learning before implementation. Design rubrics/surveys.
2017-18	Continued monitoring of infrastructure needs and adjustments as needed	• Regular staff meetings with focus on ongoing 1:1 implementation (bldg admin) • Embedded coaching for grade level teachers in 1:1 classrooms (LITS) • PLC focus on tech integration (teachers) • Ongoing professional development for LITS and teachers	Option 1&2: 1:1 in grades 7-10 Option 3: 1:1 in grades 8-9	Gather data on equity, access, and digital age learning after first year of implementation
2018-19	Continued monitoring of infrastructure	• Regular staff meetings with focus on ongoing 1:1	Option 1: 1:1 in grades 5-12	Gather data on equity, access,

	needs and adjustments as needed	implementation (bldg admin) ● Embedded coaching for grade level teachers in 1:1 classrooms (LITS) ● PLC focus on tech integration (teachers) ● Ongoing professional development for LITS and teachers	Option 2: 1:1 in grades 6-11 Option 3: 1:1 in grades 7-10	and digital age learning after second year of imple-mentation
2019-20	Continued monitoring of infrastructure needs and adjustments as needed	● Regular staff meetings with focus on ongoing 1:1 implementation (bldg admin) ● Embedded coaching for grade level teachers in 1:1 classrooms (LITS) ● PLC focus on tech integration (teachers) ● Ongoing professional development for LITS and teachers	Option 1: no grade level rollout Option 2: 1:1 in grades 5-12 Option 3: 1:1 in grades 6-11 Purchase spare devices/carts to replace phased out chromebooks (pre-proposal assets)	Gather data on equity, access, and digital age learning after third year of implementation
2020-21	Continued monitoring of infrastructure needs and adjustments as needed	● Regular staff meetings with focus on ongoing 1:1 implementation (bldg admin) ● Embedded coaching for grade level teachers in 1:1 classrooms (LITS) ● PLC focus on tech integration (teachers) ● Ongoing professional development for LITS and teachers	Option 1: no grade level rollout Option 2: no grade level rollout Option 3: 1:1 in grades 5-12 Purchase spare devices/carts to replace phased out chromebooks (pre-proposal assets)	Gather data on equity, access, and digital age learning after full implemen-tation

NETS-S - The ISTE National Educational Technology Standards and Performance Indicators for Students

1. Creativity and innovation

Students demonstrate creative thinking, construct knowledge, and develop innovative products and processes using technology.

a. Apply existing knowledge to generate new ideas, products, or processes

b. Create original works as a means of personal or group expression

c. Use models and simulations to explore complex systems and issues

d. Identify trends and forecast possibilities

2. Communication and collaboration Students use digital media and environments to communicate and work collaboratively, including at a distance, to support individual learning and contribute to the learning of others.

a. Interact, collaborate, and publish with peers, experts, or others employing a variety of digital environments and media

b. Communicate information and ideas effectively to multiple audiences using a variety of media and formats

c. Develop cultural understanding and global awareness by engaging with learners of other cultures

d. Contribute to project teams to produce original works or solve problems

3. Research and information fluency Students apply digital tools to gather, evaluate, and use information.

a. Plan strategies to guide inquiry

b. Locate, organize, analyze, evaluate, synthesize, and ethically use information from a variety of sources and media

c. Evaluate and select information sources and digital tools based on the appropriateness to specific tasks

d. Process data and report results

4. Critical thinking, problem solving, and decision making Students use critical thinking skills to plan and conduct research, manage projects, solve problems, and make informed decisions using appropriate digital tools and resources.

a. Identify and define authentic problems and significant questions for investigation

b. Plan and manage activities to develop a solution or complete a project

c. Collect and analyze data to identify solutions and/or make informed decisions

d. Use multiple processes and diverse perspectives to explore alternative solutions iste.org/standards

5. Digital citizenship

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

a. Advocate and practice safe, legal, and responsible use of information and technology b. Exhibit a positive attitude toward using technology that supports collaboration, learning, and productivity

c. Demonstrate personal responsibility for lifelong learning

d. Exhibit leadership for digital citizenship

6. Technology operations and concepts

Students demonstrate a sound understanding of technology concepts, systems, and operations.

a. Understand and use technology systems

b. Select and use applications effectively and productively

c. Troubleshoot systems and applications

d. Transfer current knowledge to learning of new technologies

NETS-T - The ISTE National Educational Technology Standards and Performance Indicators for Teachers

Effective teachers model and apply the National Educational Technology Standards for Students (NETS•S) as they design, implement, and assess learning experiences to engage students and improve learning; enrich professional practice; and provide positive models for students, colleagues, and the community. All teachers should meet the following standards and performance indicators.

Teachers:

1. Facilitate and Inspire Student Learning and Creativity

Teachers use their knowledge of subject matter, teaching and learning, and technology to facilitate experiences that advance student learning, creativity, and innovation in both face-to-face and virtual environments. Teachers:

a. promote, support, and model creative and innovative thinking and inventiveness

b. engage students in exploring real-world issues and solving authentic problems using digital tools and resources

c. promote student reflection using collaborative tools to reveal and clarify students' conceptual understanding and thinking, planning, and creative processes

d. model collaborative knowledge construction by engaging in learning with students, colleagues, and others in face-to-face and virtual environments

2. Design and Develop Digital-Age Learning Experiences and Assessments

Teachers design, develop, and evaluate authentic learning experiences and assessments incorporating contemporary tools and resources to maximize content learning in context and to develop the knowledge, skills, and attitudes identified in the NETS•S. Teachers:

a. design or adapt relevant learning experiences that incorporate digital tools and resources to promote student learning and creativity

b. develop technology-enriched learning environments that enable all students to pursue their individual curiosities and become active participants in setting their own educational goals, managing their own learning, and assessing their own progress

c. customize and personalize learning activities to address students' diverse learning styles, working strategies, and abilities using digital tools and resources

d. provide students with multiple and varied formative and summative assessments aligned with content and technology standards and use resulting data to inform learning and teaching

3. Model Digital-Age Work and Learning

Teachers exhibit knowledge, skills, and work processes representative of an innovative professional in a global and digital society. Teachers:

a. demonstrate fluency in technology systems and the transfer of current knowledge to new technologies and situations

b. collaborate with students, peers, parents, and community members using digital tools and resources to support student success and innovation

c. communicate relevant information and ideas effectively to students, parents, and peers using a variety of digital-age media and formats

d. model and facilitate effective use of current and emerging digital tools to locate, analyze, evaluate, and use information resources to support research and learning

4. Promote and Model Digital Citizenship and Responsibility

Teachers understand local and global societal issues and responsibilities in an evolving digital culture and exhibit legal and ethical behavior in their professional practices. Teachers:

a. advocate, model, and teach safe, legal, and ethical use of digital information and technology, including respect for copyright, intellectual property, and the appropriate documentation of sources

b. address the diverse needs of all learners by using learner-centered strategies and providing equitable access to appropriate digital tools and resources

c. promote and model digital etiquette and responsible social interactions related to the use of technology and information

d. develop and model cultural understanding and global awareness by engaging with colleagues and students of other cultures using digital-age communication and collaboration tools

5. Engage in Professional Growth and Leadership

Teachers continuously improve their professional practice, model lifelong learning, and exhibit leadership in their school and professional community by promoting and demonstrating the effective use of digital tools and resources. Teachers:

a. participate in local and global learning communities to explore creative applications of technology to improve student learning

b. exhibit leadership by demonstrating a vision of technology infusion, participating in shared decision making and community building, and developing the leadership and technology skills of others

c. evaluate and reflect on current research and professional practice on a regular basis to make effective use of existing and emerging digital tools and resources in support of student learning

d. contribute to the effectiveness, vitality, and self-renewal of the teaching profession and of their school and community

NETS-A - The ISTE National Educational Technology Standards and Performance Indicators for Administrators

1. Visionary Leadership. Educational Administrators inspire and lead development and implementation of a shared vision for comprehensive integration of technology to promote excellence and support transformation throughout the organization. Educational Administrators:

a. inspire and facilitate among all stakeholders a shared vision of purposeful change that maximizes use of digital-age resources to meet and exceed learning goals, support effective instructional practice, and maximize performance of district and school leaders

b. engage in an ongoing process to develop, implement, and communicate technology-infused strategic plans aligned with a shared vision

c. advocate on local, state, and national levels for policies, programs, and funding to support implementation of a technology-infused vision and strategic plan

2. Digital-Age Learning Culture. Educational Administrators create, promote, and sustain a dynamic, digital-age learning culture that provides a rigorous, relevant, and engaging education for all students. Educational Administrators:

a. ensure instructional innovation focused on continuous improvement of digital-age learning

b. model and promote the frequent and effective use of technology for learning

c. provide learner-centered environments equipped with technology and learning resources to meet the individual, diverse needs of all learners

d. ensure effective practice in the study of technology and its infusion across the curriculum

e. promote and participate in local, national, and global learning communities that stimulate innovation, creativity, and digital-age collaboration

3. Excellence in Professional Practice. Educational Administrators promote an environment of professional learning and innovation that empowers educators to enhance student learning through the infusion of contemporary technologies and digital resources. Educational Administrators:

a. allocate time, resources, and access to ensure ongoing professional growth in technology fluency and integration

b. facilitate and participate in learning communities that stimulate, nurture, and support administrators, faculty, and staff in the study and use of technology

c. promote and model effective communication and collaboration among stakeholders using digital-age tools

d. stay abreast of educational research and emerging trends regarding effective use of technology and encourage evaluation of new technologies for their potential to improve student learning

4. Systemic Improvement. Educational Administrators provide digital-age leadership and management to continuously improve the organization through the effective use of information and technology resources. Educational Administrators:

a. lead purposeful change to maximize the achievement of learning goals through the appropriate use of technology and media-rich resources

b. collaborate to establish metrics, collect and analyze data, interpret results, and share findings to improve staff performance and student learning

c. recruit and retain highly competent personnel who use technology creatively and proficiently to advance academic and operational goals

d. establish and leverage strategic partnerships to support systemic improvement

e. establish and maintain a robust infrastructure for technology including integrated, interoperable technology systems to support management, operations, teaching, and learning

5. Digital Citizenship. Educational Administrators model and facilitate understanding of social, ethical, and legal issues and responsibilities related to an evolving digital culture. Educational Administrators:

a. ensure equitable access to appropriate digital tools and resources to meet the needs of all learners

b. promote, model, and establish policies for safe, legal, and ethical use of digital information and technology

c. promote and model responsible social interactions related to the use of technology and information

d. model and facilitate the development of a shared cultural understanding and involvement in global issues through the use of contemporary communication and collaboration tools

NETS-C - ISTE NETS for Technology Coaches

1. Visionary Leadership. Technology Coaches inspire and participate in the development and implementation of a shared vision for the comprehensive integration of technology to promote excellence and support transformational change throughout the instructional environment. Technology Coaches:

a. Contribute to the development, communication, and implementation of a shared vision for the comprehensive use of technology to support a digital-age education for all students

b. Contribute to the planning, development, communication, implementation, and evaluation of technology-infused strategic plans at the district and school levels

c. Advocate for policies, procedures, programs, and funding strategies to support implementation of the shared vision represented in the school and district technology plans and guidelines

d. Implement strategies for initiating and sustaining technology innovations and manage the change process in schools and classrooms

2. Teaching, Learning, & Assessments. Technology Coaches assist teachers in using technology effectively for assessing student learning, differentiating instruction, and providing rigorous, relevant, and engaging learning experiences for all students. Technology Coaches:

a. Coach teachers in and model design and implementation of technology-enhanced learning experiences addressing content standards and student technology standards

b. Coach teachers in and model design and implementation of technology-enhanced learning experiences using a variety of research-based, learner-centered instructional strategies and assessment tools to address the diverse needs and interests of all students

c. Coach teachers in and model engagement of students in local and global interdisciplinary units in which technology helps students assume professional roles, research real-world problems, collaborate with others, and produce products that are meaningful and useful to a wide audience

d. Coach teachers in and model design and implementation of technology-enhanced learning experiences emphasizing creativity, higher-order thinking skills and processes, and mental habits of mind (e.g., critical thinking, meta-cognition, and self-regulation)

e. Coach teachers in and model design and implementation of technology-enhanced learning experiences using differentiation, including adjusting content, process, product, and learning environment based upon student readiness levels, learning styles, interests, and personal goals

f. Coach teachers in and model incorporation of research-based best practices in instructional design when planning technology-enhanced learning experiences

g. Coach teacher in and model effective use of technology tools and resources to continuously assess student learning and technology literacy by applying a rich variety of formative and summative assessments aligned with content and student technology standards

h. Coach teachers in and model effective use of technology tools and resources to systematically collect and analyze student achievement data, interpret results, and communicate findings to improve instructional practice and maximize student learning

3. Digital-Age Learning Environments. Technology coaches create and support effective digital-age learning environments to maximize the learning of all students. Technology Coaches:

a. Model effective classroom management and collaborative learning strategies to maximize teacher and student use of digital tools and resources and access to technology-rich learning environments

b. Maintain and manage a variety of digital tools and resources for teacher and student use in technology-rich learning environments

c. Coach teachers in and model use of online and blended learning, digital content, and collaborative learning networks to support and extend student learning as well as expand opportunities and choices for online professional development for teachers and administrators

d. Select, evaluate, and facilitate the use of adaptive and assistive technologies to support student learning

e. Troubleshoot basic software, hardware, and connectivity problems common in digital learning environments

f. Collaborate with teachers and administrators to select and evaluate digital tools and resources that enhance teaching and learning and are compatible with the school technology infrastructure

g. Use digital communication and collaboration tools to communicate locally and globally with students, parents, peers, and the larger community

4. Professional Development & Program Evaluation. Technology coaches conduct needs assessments, develop technology-related professional learning programs, and evaluate the impact on instructional practice and student learning. Technology Coaches:

a. Conduct needs assessments to inform the content and delivery of technology-related professional learning programs that result in a positive impact on student learning

b. Design, develop, and implement technology-rich professional learning programs that model principles of adult learning and promote digital-age best practices in teaching, learning, and assessment

c. Evaluate results of professional learning programs to determine the effectiveness on deepening teacher content knowledge, improving teacher pedagogical skills and/or increasing student learning

5. Digital Citizenship. Technology coaches model and promote digital citizenship. Technology Coaches:

a. Model and promote strategies for achieving equitable access to digital tools and resources and technology-related best practices for all students and teachers

b. Model and facilitate safe, healthy, legal, and ethical uses of digital information and technologies

c. Model and promote diversity, cultural understanding, and global awareness by using digital-age communication and collaboration tools to interact locally and globally with students, peers, parents, and the larger community

6. Content Knowledge and Professional Growth. Technology coaches demonstrate professional knowledge, skills, and dispositions in content, pedagogical, and technological areas as well as adult learning and leadership and are continuously deepening their knowledge and expertise. Technology Coaches:

a. Engage in continual learning to deepen content and pedagogical knowledge in technology integration and current and emerging technologies necessary to effectively implement the NETS•S and NETS•T

b. Engage in continuous learning to deepen professional knowledge, skills, and dispositions in organizational change and leadership, project management, and adult learning to improve professional practice

c. Regularly evaluate and reflect on their professional practice and dispositions to improve and strengthen their ability to effectively model and facilitate technology-enhanced learning experiences

Technology Integration Matrix (TIM)

The Technology Integration Matrix (TIM) illustrates how teachers can use technology to enhance learning for K-12 students. The TIM incorporates five interdependent characteristics of meaningful learning environments: active, constructive, goal directed (i.e., reflective), authentic, and collaborative (Jonassen, Howland, Moore, & Marra, 2003). The TIM associates five levels of technology integration (i.e., entry, adoption, adaptation, infusion, and transformation) with each of the five characteristics of meaningful learning environments. Together, the five levels of technology integration and the five characteristics of meaningful learning environments create a matrix of 25 cells as illustrated here:

http://fcit.usf.edu/matrix/matrix.php

GBEF – Acceptable Use Policy : Staff

ACCEPTABLE USE POLICY: STAFF

1. For purposes of this policy, the term "staff" refers to Contoocook Valley School District employees, including administrative staff, teachers, paraprofessionals, maintenance personnel, food services employees, student teachers, methods students, interns, contracted service personnel, and any volunteers working within the school district.
2. It is the responsibility of the individual staff member to familiarize him/herself with and abide by the rules of this Acceptable Use Policy, any applicable Staff Handbook, and all other relevant school policies.

Introduction

1. Pursuant to New Hampshire Revised Statutes Annotated 194:3-d and the guidelines issued by the New Hampshire Department of Education, this Acceptable Use Policy shall serve as a statement on the appropriate use of the technology resources available to all staff of the school district.
2. These technology resources include, but are not limited to, the District network, including cabling, routers, and switches; the District's electronic e-mail and voice mail systems; computer hardware in the form of desktops, laptops, and other mobile devices; digital peripheral devices, such as printers, scanners, digital still and digital video cameras; projection devices, such as SmartBoards, LCD projectors, and VGA-compatible televisions; as well as all software applications and web access tools.
3. The primary purposes of these technology resources are:
    - to support the educational mission of the Contoocook Valley School District;
    - to provide improved avenues of communication between staff, and with parents and guardians;
    - to establish a web presence for the Contoocook Valley School District.
4. As such, the technology resources have a designated educational purpose and are not intended for recreational and entertainment use.

Privileges and Responsibilities

1. The use of the technology resources of the Contoocook Valley School District is a revocable privilege and not a right. All use of technology resources must be consistent with the District's contractual obligations, including limitations defined in software and other licensing agreements, including End User License Agreements (EULAs).
2. Every member of the staff is responsible for appropriate and professional behavior when using technology resources, just as they are in the classroom, in offices, or at any District function.

3. Every member of the staff that will have school equipment loaned to them must sign and date an Agreement for Authorized Use of School Owned Materials (GBEF-F).

Expectations of Privacy

1. While the school district recognizes the importance of maintaining confidentiality and privacy of student records in accordance with the Family Educational Rights and Privacy Act (FERPA), staff members do not have any expectation of privacy of any information stored or transmitted through district-owned communication systems or other technology resources. Student identifying information should not be included in electronic communications.
2. District technology resources owned by the District are intended for educational purposes and District business at all times. Staff members shall have no expectation of privacy when using the internet or electronic communications. The District reserves the right to monitor, inspect, copy, review, and store (at any time and with and/or without prior notice) all usage of district technology resources, including all internet and electronic communications access and transmission/receipt of materials and information. All material and information accessed/ received or generated through district technology resources shall remain the property of the district.

Use of Technology Resources

1. The Contoocook Valley School District's technology resources are intended for staff to conduct research, gather information, and communicate with others for educational purposes. The specific uses of these technology resources are broadly categorized as acceptable, allowable, or prohibited.

Disciplinary Action

1. Engaging in prohibited use shall constitute a violation of this Acceptable Use Policy and result in appropriate disciplinary action.
2. Such discipline will be administered consistent with Board policies and/or all applicable provisions of the Master Agreement/Collective Bargaining Agreement.

Disclaimer

1. The Contoocook Valley School District makes no warranties of any kind, whether expressed or implied, for the technology services it is providing. While the District will make every effort to preserve data, the responsibility for it lies with the staff, except in those cases where web-based services are employed (e.g. EasyIEP, Web2School, etc.) and/or data are stored externally.
2. The District will not be held responsible for any damages staff may suffer, including but not limited to, loss of data resulting from delays, non-deliveries, misdeliveries, or service Interruptions.

3. The District will not be responsible for personal property used to access District computers or networks or for District-provided Internet access.

Legal References:

RSA 194:3-d, School District Computer Networks

http://www.ed.gov/policy/gen/guid/fpco/ferpa/index.html

Category: R

Adopted: March 31, 2009

Amended: January 7, 2014

EHAA – Internet Safety And Responsible Use Policy For Students

Overview

The ConVal School District provides its students access to a multitude of technology resources. These resources provide opportunities to enhance learning and improve communication within our education community and with the global community beyond our campus. The advantages of having access to these resources are far greater than any potential downside. However, with the privilege of access is the responsibility of students to exercise appropriate personal responsibility in their use of these resources.

The ConVal School District policies are intended to promote the most effective, safe, productive, and instructionally sound uses of networked information and communication tools. The District also makes a good faith effort to protect its students from exposure to Internet materials that are harmful, obscene, violent, or otherwise inappropriate. The District maintains an Internet content filtering system that meets federal standards established in the Children's Internet Protection Act (CIPA) and Children's Online Privacy Protection Act (COPPA) by blocking access to inappropriate material on the Internet and ensuring the safety and security of minors when using email, chat rooms, and other forms of direct electronic communications.

Digital Citizen

The ConVal School District provides information and technology resources for use in safe, legal, and responsible ways. A responsible digital citizen is one who:

1. Respects one's self. Users will use online names that are issued to them, and will carefully consider the appropriateness of any information and images that are posted online.

2. Respects others. Users will refrain from using technologies to bully, tease, or harass other people. Users will not masquerade using a false identity or impersonate others.

3. Protects one's self and others. Users will protect themselves and others by using secure passwords, logging out of a computer when finished, not sharing passwords with others, and by reporting abuse and not forwarding inappropriate materials or communications.

4. Respects and protects intellectual property. Users will suitably cite any and all use of websites, books, media, etc., and will request to use the software and media others have produced.

5. Respects the District's technology equipment, network, and resources. Users will avoid bandwidth-intensive tasks, the transfer of unnecessarily large files, and the submission of multiple copies of the same print job to a printer. Users are prohibited from attempting to install or download software onto District-owned computers.

6. Protects the ConVal.edu domain from inappropriate use. Users will use District-provided accounts and subscriptions for school work only. Users will respect filters and other security systems and not attempt to defeat them.

To help ensure student safety and citizenship in online activities, all students will be educated about appropriate online behavior, including interacting with other individuals on social networking websites and in chat rooms, and about cyberbullying awareness and response.

Expectations

Responsible use of the District's technology resources is expected to be ethical, respectful, academically honest, and supportive of the School District's mission. Each computer user has the responsibility to respect every other person in our community and on the Internet. Digital storage and electronic devices used for school purposes are viewed as extensions of the physical school space. Administrators, or their designees, may review files and communications (including electronic mail) to ensure that users are using the system in accordance with District policy. Users do not have any expectation of privacy of any information stored on servers or transmitted through District communication systems. Users should also understand that school servers regularly record Internet activity in log files and that, if requested under New Hampshire's "Right to Know" law (RSA 91-A: Access to Public Records and Meetings), the District must provide this information.

Some activities are expressly prohibited by law. Users are expected to abide by the generally accepted rules of network etiquette. The following guidelines are intended to clarify expectations for conduct, but they should not be construed as all-inclusive:

1 Use of electronic devices should be consistent with the District's educational objectives, mission and curriculum.

2 Transmission of any material in violation of any local, federal and state laws is prohibited. This includes, but is not limited to copyrighted material, licensed material, threatening or obscene material, and unauthorized disclosure, use, and dissemination of personal information of minors.

3 Intentional or unintentional use of computing resources to access or process proxy sites, pornographic material, explicit text or files, material that is demeaning or degrading, content that is violent or harmful to minors, or files dangerous to the integrity of the network are strictly prohibited.

4 Use of computing resources for commercial activities, product advertisement or religious or political lobbying is prohibited.

5 Users may be held personally and financially responsible for malicious damage done to network software, data, user accounts, hardware and/or unauthorized costs incurred.

6 Files stored on District-managed networks may be inspected at any time and should not be considered private.

7 Protects the ConVal.edu domain from inappropriate use. Users will use District-provided accounts and subscriptions for school work only. Users will respect filters and other security systems and not attempt to defeat them.

The School District reserves the right to refuse access to the Internet to anyone. Violating any portion of this policy may result in disciplinary action, including temporary or permanent ban on computer or Internet use, suspension or dismissal from school, and/or legal action. The School District will cooperate with law enforcement officers in investigations related to illegal activities conducted through its network.

Legal References:

U.S. Pub. L. No. 106-554, Children's Internet Protection Act (www.ifea.net/cipa.html)

U.S. Pub. L. 105-277, 112 Stat. 2581-728, enacted October 21, 1998, Children's Online Privacy Protection Act of 1998 (COPPA) (15 U.S.C. §§ 6501–6506)

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