

Regional School Unit #19

*Corinna Dixmont Etna Hartland
Newport Palmyra Plymouth St. Albans*

**Technology Plan 2011-2014
September 8, 2010**

This plan is our road map for integrating technology into classroom practice and the organizational and management functions of the district. As we strive to educate world-class students, this plan will guide schools and departments in implementing technology activities appropriate to their individual needs while aligning with the district plan.

The plan describes:

- Our vision for using educational technology as a tool for student achievement.
- Ways technology will assist administrative, business, and instructional support functions.
- Our expectations for students and staff as users of technology.
- To the state our technology today and our plans for the next three years.
- A plan for training staff to integrate educational technology with effective instructional and managerial functions.
- Our requirements for hardware, software, network configurations and applications.

The Technology Committee addressed the fundamental questions:

What technological skills will ensure students are prepared for college, careers and citizenship? At R.S.U. #19, we believe that all students and staff must have equitable opportunities to develop and master both information literacy and technological proficiency. The district will take leadership in working with schools and community partnerships to ensure that all students and staff have equitable access to computers, quality information resources, on-going training, and technical support needed to develop this mastery.

1. Community and Parental Involvement

The Technology Planning Committee combined with our Future Search Committee, includes a wide range of stakeholders, including District IT staff, teachers, administrators, students, parents and local business people.

R.S.U. #19 maintains a comprehensive web site, which is available at www.RSU19.org. This Web site includes an interactive safety page, policies, school calendar, school board information and meeting minutes. Announcements about upcoming meetings and events are posted on the site daily. Links to all the schools and individual teacher web pages with information about special projects, homework, and resources are available. The school board posts budget information and other pertinent information for the citizens of the district.

Examples of integration of technology are routinely showcased throughout the year. Students share their learning with parents during student led conferences, academic exhibitions, open houses, student technology showcases, and Nokomis Warrior Broadcasting presenting technological achievements of district students and staff through the local access cable channel.

All R.S.U. #19 teachers, administrators, school board members, and support staff have e-mail accounts. All e-mail addresses are listed on the web site. All students and staff grades 5 through 12 have accounts for digital work spaces. All students at grades 9 through 12 have a school e-mail accounts.

R.S.U. #19 uses the student information management system (SIS) called Infinite Campus. Teachers enter grades and attendance for their students. That same data is available to the school, central office, parents and students.

2. Community-Wide Technology Vision Statement

The learning community of R.S.U. #19 will be technologically literate life-long learners. Learners will be able to interact successfully in a technological environment to achieve their personal, education and workplace goals. They will skillfully use technology to access, retrieve and use information school-wide, community-wide, nationally and internationally. When integrated with the revised Core Curriculum Standards and the National Standards in the school curriculum, technology becomes a valuable tool which provides information, increases student participation, broadens student's interest, stimulates student thinking, and encourages creative and practical problem solvers.

Our Technology Plan provides a baseline from which to measure the progress made toward technological implementation and a design for reaching District and community-wide goals for information access, employment, global communication, and self-directed, lifelong learning. The access and utilization of the tools of technology will benefit not only our students but also the Corinna, Hartland, Newport, Palmyra, Plymouth, St. Albans and Etna-Dixmont communities.

3. Goals

R.S.U. #19 is committed to continuous school improvement, quality service to the community and high achievement for all of our students. This technology plan is designed to address the district's Strategic Technology Goal and focus our efforts in connecting students and staff to educational technologies which show promise to strengthen and improve teaching and learning.

The District's Technology Goals -The technology resources used by the district will be current and will be used effectively for instruction, communication and administration. The definition of Instructional Technology has been expanded to include not only computers, but all audio and video recording devices or other digital equipment. These will be referred to as "technology resources" throughout this plan.

Equity of Access for Educators, Students & Parents - R.S.U. #19 provides the learning community with greater opportunity for interaction, collaboration and information exchange. The school will become a vital meeting place for a host of community services. All students and staff of R.S.U. #19 have access to technology resources. All students and staff have access to computers in the classrooms and Library/Media centers. These facilities

are available to people with disabilities. Purchases of all computer equipment, peripheral devices and appropriate software have been and will continue to be made in order to accommodate learners in all educational programs.

Goal 1 - Technology Integration

Objective 1.1: Students will be taught to use a variety of developmentally appropriate resources and productivity tools for communication, presentation, and illustration of thoughts, ideas, and stories.

Objective 1.2: Students will be taught to use telecommunications and online resources efficiently and effectively to collaborate with peers, experts, and others to investigate curriculum related problems, issues and information.

Objective 1.3: Students will be taught to research and evaluate the accuracy, relevance, appropriateness, and bias of electronic information.

Objective 1.4: Students will be taught to demonstrate legal and ethical behaviors regarding the use of technology and information.

Goal 2 - Instruction

Objective 1.1: Students and staff will be taught how to safely use equipment and online access.

Objective 1.2: Staff will work with curriculum which is aligned with the technology standards found in the NETS.

Objective 1.3: Staff will be trained in the application of technology throughout the classroom, school and district to improve academic achievement.

Goal 3 - Online Learning

Objective 1.1: To offer a variety of in-house and off campus online opportunities for students.

Objective 1.2: To offer a variety of in-house and off campus online opportunities for staff.

Goal 4 - Equipment

Objective 1.1: To continue to make sure there is equity of equipment for all schools.

Objective 1.2: To provide equipment that support educational and curricula initiatives and integrates into classroom activities.

Objective 1.3: To provide teachers and administrators with trainings to utilize equipment.

Goal 5 - Safety

Objective 1.1: Students and staff will be provided information on how to follow all federal regulations.

Objective 1.2: Student access will be in compliance with federal regulations.

Objective 1.3: Students will be taught and have experience with creating a safe online presence.

Goal 6 - Community Involvement

Objective 1.1: The district will continue to improve community-school communication.

Objective 1.2: The district will continue to make online courses available for community and adult education.

Objective 1.3: The district will continue to involve a broad representation of the school community in the planning process.

Section 4. Identify Necessary Technology

Summary of Existing Technology

At the present time, Nokomis has three computer labs – one with 22 computers, one with 20 computers, and one with 25 computers. These labs are used for classroom teaching in the subjects of General Computer Skills, Industrial Technology, Digital Photography, Microsoft Office certification, Accounting, and Computer Programming.

Nokomis also has 24 mobile carts that house a total of 410 MacBooks that teachers use in their classrooms.

The High School has a “multimedia technology classroom” where video productions are created for broadcast on Nokomis Warrior Broadcasting.

The Sebasticook Valley Middle School has a computer lab for 5th grade with 24 computers and a networked laser printer. There is a mobile lab with 30 iBooks for the 6th grade.

In addition, there is a cluster of 8 computers in the library.

Sebasticook Valley Middle School has a “multimedia technology classroom” where video productions are created for broadcast on Nokomis Warrior Broadcasting.

Somerset Valley Middle School has a PC laptop cart with 20 computers for the 5th grade. A mobile cart of 25 iBooks for 6th grade and a networked laser printer.

In addition, there is a cluster of 8 computers in the library.

Somerset Valley Middle School has a “multimedia technology classroom” where video productions are created for broadcast on Nokomis Warrior Broadcasting.

All 7th and 8th grade students and staff at the middle schools have a MacBooks provided through the MLTI program. All high school staff have MacBooks provided through the MLTI program. All teachers district wide have laptops.

The Etna Dixmont School is 1:1 with G4's in the 5th and 6th classrooms. There is a lab with 18 computers. There is a mobile cart of 12 computers for 4th grade.

The Hartland, St. Albans, Newport, and Corinna schools have mobile carts with printers that are shared with 3rd and 4th grades. Many classrooms house small clusters of desktops for student use.

The Hartland and Corinna Schools house a computer lab in the Community Center with 25 computers and a networked color laser printer that is available for community members.

All teaching staff, administrators, and many support staff have laptops. Administrators have iPads.

The department is staffed by a Director, a network administrator, a help desk coordinator, a MLTI technical lead, one full time and one part time integrator, and a central registrar. Each middle school has a MLTI teacher leader.

5. Collaboration with Adult Literacy Service Providers

R.S.U. #19 Adult Education is currently providing computer training of all levels utilizing Microsoft Office software on the District's network computers. Courses range from Introduction to Computers to MS Word (beginning and advanced), to MS Excel, to MS PowerPoint, etc... In addition to the computer training, students enrolled in various courses (i.e. English, History, etc.) are assigned network user accounts to effectively do their class work and research. Another area of technology use includes the students who participate in the Interactive Television classes offered through the Maine Network System. Students need to have computers available to conduct most of their assignments.

In the future, we would like to offer computer training for local businesses to help ensure employee retention and improve employee capabilities. This may require incorporating newer/updated versions of hardware and software.

Other areas of interest to RSU #19 Adult Education includes digital photography, graphic design layout, and other new technology as it progresses and becomes available.

6. Strategies for Improving Academic Achievement and Teacher Effectiveness

RSU #19 endorses the technology standards for teachers and students as developed by the International Society for Technology Education. A full text of these standards can be found at the following links: www.iste.org/standards

RSU #19 has used funds to incorporate technology throughout the curriculum where appropriate. Technology is the medium in which education operates in, therefore meaningful integration is an important aspect of our student's time here. The RSU #19 technological systems allows students to create, collaborate and produce work that emphasizes student ownership while allowing teachers to effectively manage their projects. Technology is vital to how RSU #19 manages this system and creates potential for our students that would not be possible otherwise. In building their own body of work, students use technology seamlessly in the application of their own school work. In ongoing virtual collaboration with students, teachers themselves incorporate technology into their own work flow as a matter of course. The district provides opportunities for the staff to engage in professional development. With in class support, teachers are shown examples and are encouraged to integrate technology at any appropriate opportunity.

7. Integration of Technology with Curricula, Instruction, and Assessment

We have an ongoing use of technology integration in our system. It takes many forms. The integration of some of the school wide initiatives looks like the following: District website, calendar, school and staff web pages, online accounts, podcasts, academic fair web projects, and paperless classrooms.

It is our goal that the integration of technology is an integral and seamless part of instruction. Staff is encouraged to attend workshops and webinars to increase their level of proficiency. Our technology Integrators work with teachers to develop meaningful technology infused lessons that reflect best practices.

We are still at the beginning stages of using our data collection to help drive our instruction. This will increase significantly in the next three years.

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

Develop a step-by-step action plan, with timeline, that includes goals, activities, required hardware and software, costs, and funding sources. Describe the type and costs of technology to be acquired and how it fits within the current structure (use the list developed in the technology assessment in # 4, above.). Designate sources of funding, specifically Ed Tech funds, ERate funds, and funds from other Federal programs, and state and local sources that support technology acquisition and integration.

Goals	Activities	Hardware/Software	Costs	Funding Sources
Provide and maintain student computers in elementary schools	Purchase computers	laptop or desktop computers	\$700.00 per computer	Local Funds
Replace Prek-6 teacher laptops	Purchase laptops	laptop computers	\$700.00 per computer	Local funds
Upgrade wireless connections in elementary schools	Purchase and install equipment	wireless equipment	\$80, 000	Local funds
Install a network server in Etna Dixmont school	Purchase and install server	Server and software	\$2500.00	District funds
Expand the use of the Tandberg equipment	Professional development	Existing Tandberg equipment	N/A	RUS grant
Implement Routefinder Transportation System	Professional development	N/A	N/A	Supported by State funds
Provide 1:1 computing for sixth and seventh graders at Somerset and Seabastcook Middle Schools	Purchase laptops	laptops	500.00 per computer	Local funds
Continue to acquire assistive technologies for students as determined by the District	Purchase specialized equipment as needed	Software Hardware	\$200,000	Local and federal funds

9. Supporting Resources

RSU #19 students and staff are using distance learning options, including the Tandberg equipment to access virtual classes in science, foreign language, and music.

Students and teachers who use the MLTI Macbooks are learning to use a variety of programs and resources available through MLTI. The District subscribes to numerous online content provider services, including: Marvel! Maine's Virtual Library, Destiny, Culture Gram, Discovery Education Streaming, History Resource Center, Opposing Viewpoints, Lifetime Learning Library, PLATO, Google Apps for Education and included services, Wiggo, Edomodo, Kidsblog, Tandberg Network, Aimsweb, Webfeet, Portaportal. Our students also take advantage of many of the free online podcast and literature sites. These services are available to all students and staff from all school based computers, and also from home, through a secure link on the District's web site.

10. Steps to Increase Accessibility

All usable computer equipment currently in use at grades 9 through 12 will be transferred to the K-4 elementary schools, and grades 5-6 at the middle schools. Computer labs at the elementary schools have been dismantled and put in the classrooms in clusters of three or four machines to make their use more seamless in students education and not seen as an The steps taken in Section 8 (hardware & software acquisition, intensive staff training) as well as the steps

taken in Section 12 (Professional Development) will ensure that teachers are well prepared to integrate technology effectively into curricula, instruction and classroom management.

Source of funding: state, federal and private grants; local funds. The district was currently awarded a RUS grant and will be sending staff members to video conferencing workshops for training. This grant will allow students many opportunities for students to experience virtual field trips and other distance learning or in the Community Center at Hartland Consolidated and Corinna Elementary School. These computers are available for use by District residents during non-school hours once they have participated in a short training course offered by the Adult Ed Department, and signed an Acceptable Use Policy. The Adult Ed Department maintains a schedule of available computer facilities. Each school in the District has a number of computers in common areas, usually the Library/Media Center

11. Promotion of Various Curricula and Teaching Strategies that Integrate Technology

We continue to shift our curricular to align with current research on best practices. This includes the use of technology within all classes at all levels and in all content areas. We have been identifying these strategies as part of the continual improvement cycle of teaching and learning. We use an Action Research Model of assessing student performance and making appropriate adjustments in practices based on the best results to date. This model is supported in research and is reflected in our district results at grades four, eight and eleven.

12. Professional Development

Describe how 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.

Staff Competencies

12a. Technology operations and concepts. Teachers demonstrate a sound understanding of technology operations and concepts.

Teachers will: Demonstrate introductory knowledge, skills, and understanding of concepts related to technology. Demonstrate continual growth in technology knowledge and skills to stay abreast of current and emerging technologies.

12b. Planning and designing learning environments and experiences. Teachers plan and design effective learning environments and experiences supported by technology.

Teachers will: Design developmentally appropriate learning opportunities that apply technology-enhanced instructional strategies to support the diverse needs of learners. Apply current strategies on teaching and learning with technology when planning learning environments and experiences. Identify and locate technology resources and evaluate them for accuracy and suitability. Plan for and implement the integration of technology resources within the context of learning activities. Plan strategies to manage student learning in a technology-enhanced environment.

12c. Teaching, learning and the curriculum. Teachers implement curriculum plans that include methods and strategies for applying technology to maximize student learning.

Teachers will: Use technology to support learner-centered strategies that address the diverse needs of students. Apply technology to develop students' higher order skills and creativity. Manage student learning activities in a technology-enhanced environment.

12d. Assessment and Evaluation. Teachers apply technology to facilitate a variety of effective assessment and evaluation strategies.

Teachers will: Use technology resources to collect and analyze data, interpret results, and communicate findings to improve instructional practice and maximize student learning. Apply multiple methods of evaluation to determine students' appropriate use of technology resources for learning, communication, and productivity.

12e. Productivity and Professional Practice. Teachers use technology to enhance their productivity and professional practice.

Teachers will: Use technology resources to engage in ongoing professional development and lifelong learning. Continually evaluate and reflect on professional practice to make informed decisions in support of student learning. Apply technology to increase productivity. Use technology to communicate and collaborate with peers, parents, and the larger community in order to nurture student learning.

12f. Social, Ethical and Human Issues. Teachers understand the social, ethical, legal, and human issues surrounding the use of technology in PK-12 schools and apply those principles in practice.

Teachers will: Advocate and practice safe, legal, and responsible use of information and technology. Exhibit a positive attitude toward using technology that supports collaboration, learning, and productivity. Promote awareness of safe and healthy use of technology resources.

13. Innovative Delivery Strategies

Elementary Level: Staff at the elementary level play a more hands on role with the delivery of technology to students. They work in lab or station settings with students and integrate technology into their lessons where available and appropriate.

Middle Level: The current technological system allows innovative delivery of curriculum to students as a matter of course. The framework is virtual and available to students at any time. Integration of virtual systems into the daily classwork means students do not need a separate place for their written work and technological work, but have them combined into one virtual environment that seamlessly allows students to work in both. Teachers are part of the process that students use to manage, collect and ultimately present their work as appropriate.

Secondary Level: Nokomis Regional High staff have worked diligently at implementing daytime distance learning classes with other schools on the Tandberg System. The DOE has assisted with coordinating the various scheduling types in use by participating schools, but there are still some discrepancies in the actual length of the school day and class periods. Nokomis continues its efforts to better coordinate scheduling to take advantage of the distance learning network of classes. The current system also embeds use of technology and delivery into the students daily work flow. The framework is virtual and available to students at all time. Integration of virtual systems into the daily class work means students do not need separate places for their work, but have them combined into a single virtual environment. Teachers are part of the process that students use to manage, collect and ultimately present their work as appropriate. Many students at Nokomis Regional High have taken or are taking on-line classes through Compass Learning, the American School, Virtual High School, and our own in district online offerings.

Adult Education Level: Adult education is currently using PLATO online services to supplement its curriculum. The possibilities of online education are endless, where we could use this to meet all students' needs if a course is not offered locally or vise versa. Online services have also been utilized successfully by area businesses to conduct and/or attend statewide meetings without unnecessary travel.

14. Accountability Measures

The following procedures will be implemented to insure accountability.

- Review the technology plan; identify progress and evaluate changes needed.
- Determine needs for in-servicing of teachers in the technology areas and develop appropriate content.
- Use assessment tools (self-evaluation, performance assessments) to gather data on student and staff use of technology.
- Provide leadership for professional development.
- Maintain current inventories and adjust as outlined in the plan.
- Provide leadership, support and alignment for technology integration, curriculum development and assessment.

Three Year Plan for Implementation of Technology			
Goal	Person(s) Responsible	Time Frame	Evaluation
Technology Integration	Director of Instruction Technology Director Technology Integrator	Ongoing	Classroom observations Teacher/Student evaluations
Instruction	Technology Director Technology Integrator Teacher Leaders	Ongoing	Surveys and evaluations provided by staff following professional development.
Online Learning	Principals Classroom teachers Technology Integrator	Ongoing	Tracking class and student enrollments through guidance at HS. Begin a detailed data collection system when using online lessons for interventions.
Equipment	Technology Director Principals	Ongoing	Inventory
Safety	Technology Department	Ongoing	Compliance with District policies
Community Involvement	Web Master Adult Education Director Future Search Committee	Ongoing	Documentation of all public relations work.