

# **MSAD #56 TECHNOLOGY PLAN**

2007-2010

*Approved 3/27/2007*

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## Introduction

Early in the [Maine Learning Technology Initiative \(MLTI\)](#) MSAD 56 recognized the transformational nature of the one-to-one laptops in grade 7 and 8. When lack of support for funding prevented the state from expanding the program to high schools the MSAD 56 Board and superintendent Mary Szvec followed their district vision and made expansion a local priority. One of only 32 Maine high schools to expand [one-to-one](#), MSAD 56 supplemented local and Special Education funds with several grants—[Great Maine Schools](#), Rural Low Income, [Title IID](#) Technology and [MBNA](#) (now Bank of America). The grant funding provided by MBNA was the largest ever awarded to a school district.

These funds provided [one-to-one](#) laptops for all students grade 6-11, all teachers grades K-12, and all educational technicians grade 6-12. In 2006 all [MLTI](#) round one laptops were purchased, refurbished and distributed to grade 6 students. Several carts of laptops were placed in the three elementary schools. This equipment plus annual purchase of software upgrades provides our students and staff with the tools necessary to acquire the [21st Century skills](#) necessary for their successful future.

The three communities continue to voice strong support for technology in the schools. Over a three year period the technology hardware budget increased from \$28,500 in 2004-05 to \$106,000 in 2006-07. The citizens of MSAD 56 understand the educational power of technology and provide the personnel, tools and equipment needed to use it well.

### Timeline

- ? September 2006--A call for community members, parents and staff interested in being considered for the Ad Hoc Technology Plan committee went out. From that applicant pool the Superintendent selected a group representative of the schools and communities. A meeting schedule was determined at the September 20 meeting. Members reviewed many selected resources regarding best practice, learning research and technology trends in preparation for their task. The Ad Hoc [wiki](#) was created for collaborative writing of the plan.
- ? October-December 2006--The [enGauge survey](#) was administered. Data was analyzed, compiled and distributed to administrators, the Staff Development Committee and the Technology Committee for their input. The Ad Hoc [blog](#) was created for further discussion and input. All comments and input were collapsed. Preliminary goals and action steps created.
- ? January-February 2007--Members continued to write collaboratively and refine the plan. At the February 7 meeting a final draft was completed for submission to the MSAD 56 School Board in March.

? March 2007—Plan goes before Steering Committee and full Board for approval.

## **ADHOC Technology Plan Members**

Jason Baack	Community member
Bob Bradford	MSAD #56 Technology Director
Connie and Paul Burkard	Parents, community members
Jean Lawlis	Math teacher, Searsport District High School
Gregg Palmer	Principal, Searsport District High School
Barbara Rehmeyer	Technology Integration Specialist K-5
Laurie Rule	Technology Integration Specialist 6-12
John Stauffer	eMINTS Regional Mentor
Mary Szwec	Superintendent of Schools, MSAD #56
Gregg Tang	Parent, community member

## **Meetings**

Meeting 1 September 20, 2006

Meeting 2 October 25, 2006

Meeting 3 December 6, 2006

Meeting 4 January 17, 2007

Meeting 5 February 7, 2007

## **1. Community and Parental Involvement**

Technology has economic, social, ethical, and aesthetic ramifications that depend on where and how it is used, as well as, on attitudes toward its use. Our students and staff have become dependent on the use and availability of technology in their everyday school and work lives. As technology advances accelerate, it is essential that our students and staff have the knowledge and skills to make thoughtful and informed decisions regarding how they will use the technology provided. It is equally imperative that the communities MSAD 56 serves understand their part in providing those technology tools. Linking our schools and community through technology expands learning beyond the school walls and addresses the larger issues of community responsibility.

### ***Increased Communication Through Laptops***

[The Maine Learning Technology Initiative \(MLTI\)](#) and the Searsport District High School expansion provides [one-to-one](#) technology to all MSAD 56 students in grades 6-11 (grade 12 to be added 2007-08). Traveling with the students at school and at home, this technology tool has become totally integrated. The benefits to student learning and student/parent/teacher communication regarding student learning have been exponential. Home access has provided parents with the ability to monitor and view their student's work as never before. The project also shows parents and the community what students do with the technology tools provided, and how important providing it has become.

### ***Contributing to Community Needs***

One of eleven Maine schools, in 2006 Searsport District High School received a three year Community for Rural Education Stewardship and Technology (CREST) grant. The project provides opportunities for Searsport District High School students to utilize training in [Global Positioning Systems \(GPS\)](#) and [Geographic Information System \(GIS\)](#), web design, digital camcorders and producing ethnographic interviews. The locally developed projects will provide opportunities for communities to address issues that are important to them. The Searsport District High School project created a [GIS/GPS](#) high school course whose students are working with local government to construct a detailed Stockton Springs harbor map.

Goals include utilizing [Moodle, \(Modular Object-Oriented Dynamic Learning Environment--a course management system\)](#) as a communication tool where content of interest to the communities can be posted for access: schedules, calendars, events, and non-credit courses.

### ***Information Through the MSAD 56 Website***

The [MSAD 56 website](#) continues to be an important information/communication tool. As our network/server capabilities increase, student work will be posted for peer review, for authentic feedback, for public information and for celebration.

### ***Increased Opportunity Through MSAD 56 Adult Education***

The community also benefits from access to district computers, network and technical support

through the Adult Education program. Several General Educational Development (GED) and literacy based courses are accessed through [Plato](#), a course content provider tailored to each student's particular needs. In addition to increasing course offerings for Searsport District High School students, the [Asynchronous Transfer Mode \(ATM\)/Distance Learning](#) room is available for Adult Education students and the community to receive and transmit broadcasts. The Searsport District High School/Middle School Media Center [catalog](#) is now online and a resource to anyone with Internet access.

## 2. Vision

***Learners, education and technology woven together as a single strand.***

## 3. GOALS and OBJECTIVES

**A. MSAD 56 provides technology to increase academic achievement and support the development of the [21st Century skills](#) necessary for success in society.**

<u>Objective</u>	<u>Curriculum Focus</u>	<u>Staff Development Focus</u>	<u>Infrastructure Focus</u>
<b>A1 The students will develop <a href="#">21st Century skills</a>.</b>	A1.1 Review the <a href="#">enGauge</a> survey results, select, prioritize, develop a timeline and implement areas of focus (i. e., information literacy, robust research skills).	A1.1 Assess the professional development implications, plan and provide appropriate training.	

<u>Objective</u>	<u>Curriculum Focus</u>	<u>Staff Development Focus</u>	<u>Infrastructure Focus</u>
<b>A2 The students will efficiently use technology tools and digital/online resources to communicate, collaborate and meet their needs for research, publications, communications, and productivity.</b>	A2.1 Review, create and adopt the student <a href="#">NETS</a> and create an implementation plan.	A2.1 Review and adopt the teacher and administrator <a href="#">NETS</a> and create an implementation plan.	A2.1 Conduct peripherals needs assessments and provide the technology tools needed (i. e., digital cameras, LCD projectors, interactive white boards, etc.)
	A2.2 Develop a K-5 and 6-12 style manual for written/digital work and products including citation of resources.	A2.2 Develop an administrative style manual for more efficient preparation & sharing of digital documents and products; assess the professional development implications for staff & administrators and provide appropriate training.	
	A2.3 Students will demonstrate basic keyboarding proficiency by the end of grade 6.	A2.3 Assess the professional development implications for staff & administrators and provide appropriate training.	A2.3 Provide necessary software/equipment (AlphaSmarts, iBooks, etc.)
	A2.4 Students will demonstrate basic word processing proficiency by the end of grade 8.	A2.4 Assess the professional development implications for staff & administrators and provide appropriate training.	A2.4 Provide necessary software/equipment (i. e., AlphaSmarts, iBooks, etc.)

	A2.4 Students will demonstrate basic word processing proficiency by the end of grade 8.	A2.5 Develop grade specific information literacy/communication skills instruction to be incorporated as part of an integrated library skills program; assess the professional development implications for staff & administrators and provide appropriate training.	A2.5 Develop a digital communication archival & retention policy.
	A2.6 Students will develop safe & appropriate digital communication skills, including online safety (i.e., <a href="#">NETSmartz</a> ).	A2.6 Develop curriculum/instruction teaching safe & appropriate communication skills, including online safety (i.e., <a href="#">NetSmartz</a> ); assess the professional development implications for staff & administrators and provide appropriate training; provide parent training in monitoring their student's online safety.	A2.6 Provide appropriate communication and collaboration tools/access for students and staff (i. e., email accounts, network & public folders, <a href="#">Moodle</a> tools, etc.)
	A2.7 TSW access course content at all levels through online sources, i. e., Plato, course management systems, distance learning ( <a href="#">ATM</a> ). <a href="#">Moodle</a> .	A2.7 Assess the professional development implications and provide appropriate training; begin a Moodle pilot.	A2.7 Create a <a href="#">Moodle</a> server and provide appropriate tech support.

**B. MSAD 56 provides professional development that supports the district's learning goals and promotes effective use of technology.**

<u>Objective</u>	<u>Curriculum Focus</u>	<u>Staff Development Focus</u>	<u>Infrastructure Focus</u>
<b>B1 The teachers will share common understanding, and knowledge of <a href="#">21st Century skills</a>.</b>		B2.1 Assess the professional development implications, plan and provide appropriate training.	

<u>Objective</u>	<u>Curriculum Focus</u>	<u>Staff Development Focus</u>	<u>Infrastructure Focus</u>
<b>B2 The administrators will share common understanding, and knowledge of <a href="#">21st Century skills</a>.</b>		B1.1 Assess the professional development implications, plan and provide appropriate training. B2.1 Assess the professional development implications, plan and provide appropriate training.	

<u>Objective</u>	<u>Curriculum Focus</u>	<u>Staff Development Focus</u>	<u>Infrastructure Focus</u>
<b>B3 The teachers will use the best teaching and learning practices for applying technology to</b>	B3.1 Continue to train, utilize and expand the <a href="#">iTeam</a> .	B3.1 Collect, disseminate and provide training for research-based, best practice resources and models.	

		B3.2 Conduct frequent needs assessments & schedule/provide fall, spring & summer training that focuses on developing common understanding & knowledge of <a href="#">21st Century skills</a> (A1 R1 & 2)	
		B3.2 Create an online knowledge base of resources, tutorials and technology information; subscribe to <a href="#">Atomic Learning</a> for staff & students.	B3.2 Support, update & expand the district's Web page; update/revise the current Web publishing policy to include guidelines/procedures for teacher, student and school organization needs/requests.

<u>Objective</u>	<u>Curriculum Focus</u>	<u>Staff Development Focus</u>	<u>Infrastructure Focus</u>
<b>B4 The teachers will apply technology to facilitate a variety of effective assessment and evaluation strategies.</b>		B4.1 Assess the professional development implications of assessments & evaluations i. e., Northwest Evaluation Association (NWEA), Maine Educational Assessment (MEA), Scholastic Aptitude Test (SAT), <a href="#">Abante</a> , standards-based curriculum, etc.) and provide appropriate training for administrators & teachers.	B4.1 Support, install & update the technology aspects of the selected assessments.

<u>Objective</u>	<u>Curriculum Focus</u>	<u>Staff Development Focus</u>	<u>Infrastructure Focus</u>
<b>B5 Provide two full time (K-5, 6-12) Technology Integration Specialists (TIS).</b>	B5.1 The <a href="#">TIS</a> s work with staff & students modeling best practice technology <a href="#">integration</a> methods.	B5.1 The <a href="#">TIS</a> s provide training & staff development using teachers of teachers model, "just in time", in classrooms, & after school.	

**C. MSAD 56 provides the equipment, infrastructure and technical support necessary to support implementation of the district's goals.**

<u>Objective</u>	<u>Curriculum Focus</u>	<u>Staff Development Focus</u>	<u>Infrastructure Focus</u>
<b>C1 Provide adequate/appropriate hardware and equipment.</b>			C1.1 Develop and implement a plan providing the equipment needs for 1 to 1 laptops in grades 6-12 & desktops/other units K-12.
			C1.2 Develop and implement a replacement cycle for 1 to 1 laptops in grades 6-12 & desktops/other units K-12; bring equipment equity to all K-5 schools.

<u>Objective</u>	<u>Curriculum Focus</u>	<u>Staff Development Focus</u>	<u>Infrastructure Focus</u>
<b>C2 Provide adequate/appropriate software and timely</b>			C2.1 Develop and implement a plan for evaluating and selecting a common "desktop" to support;

upgrades.			evaluate CO/administrative needs for consolidation where possible.
		C2.2 Provide appropriate training to all users involved in a back up or disaster recovery plan.	C2.2 Evaluate needs, create plan, purchase, necessary equipment/software & implement appropriate district back up & disaster recovery protocols.
		C2.3 Provide appropriate training for the online work request users.	C2.3 Create & implement and online work request system.
		C2.4 Provide training where needed.	C2.4 Assess the current asset management systems & databases and merge where possible.

<u>Objective</u>	<u>Curriculum Focus</u>	<u>Staff Development Focus</u>	<u>Infrastructure Focus</u>
<b>C3 Provide a robust network and wireless infrastructure K-12.</b>			C3.1 Bring wireless connectivity equity among all K-5 schools.

<u>Objective</u>	<u>Curriculum Focus</u>	<u>Staff Development Focus</u>	<u>Infrastructure Focus</u>
<b>C4 Provide adequate personnel to maintain, grow, repair, &amp; support the system.</b>			C4.1 Establish & fund a ratio of tech support personnel to numbers of units supported.

**D. MSAD 56 provides technology to improve productivity, communication, data management, and administrative efficiency that supports the teaching and learning process.**

<u>Objective</u>	<u>Curriculum Focus</u>	<u>Staff Development Focus</u>	<u>Infrastructure Focus</u>
<b>D1 Support use of district databases/software (i. e., Student Information System (SIS), fiscal, human resources, and assessment management).</b>		D2.1 Provide appropriate training to technology staff and all users in the software required for their work.	D2.1 Complete the SIS (MMS) upgrade.
			D2.2 Digitize student health records.

**4. Identify Necessary Technology**

1. Although partially complete, for the first time an extensive hardware inventory (1/2007) has been done. As part of Goal C, Action Steps C1.1 and C1.2 inventory will be completed and updated annually. Equipment and software identified in the plan objectives and infrastructure action steps will be provided under the applicable timeline.

2. *enGauge: A Framework for Effective Technology Use* was completed by teachers, administrators, and technical staff in October of 2006. The assessment examines six essential conditions to effective technology use. After analysis of MSAD 56's Project Disaggregation by Grade Level Results data our goal is to increase the mean score in all six essential conditions to the exploration level at each grade span. While increasing the mean score our objective is to decrease the variation between grade level spans bringing the outliers of each group closer to the mean score. This systemic growth will allow the district to utilize [Web 2.0](#) and other tools necessary to sustain that growth.

## **5. Collaboration with Adult Literacy Service Providers**

Computer technology is essential to the Searsport District #56 Adult and Community Education Program. Using the computer labs, Adult Education instructors teach courses in keyboarding, basic computer applications, desktop publishing, multimedia presentations and digital photography. The three MSAD 56 communities benefit from access to two computer labs, the district network and technical support through the Adult Education program. The [Searsport District High School and Middle School Library Media Center](#) is open several evenings and the entire catalog can be accessed online. All [elementary school library catalogs](#) are also online.

Several [GED](#) and literacy based courses are provided from computers located in the Adult Education office through Plato, a course content provider tailored to each student's particular needs. This content is offered to adult students at any time that the Adult Education office is open. Ways to expand this service to more adult students are being explored.

In addition to increasing course offerings for Searsport District High School students, the Distance Learning/[ATM](#) room is available and utilized for Adult Education students, the community and University students to receive and transmit broadcasts.

## **6. Strategies for Improving Academic Achievement and Teacher Effectiveness**

### ***Redefining the Target***

One of the goals of Title II, Part D of the No Child Left Behind Act of 2001 (NCLB), is to ensure that every student be technologically literate by the end of eighth grade, regardless of the student's race, ethnicity, gender, family income, geographic location, or disability. Each state's educational technology director usually has the final responsibility for ensuring that their students meet this goal. The State Educational Technology Directors Association (SETDA) is the principal association representing the state directors for educational technology. SETDA's goal is to improve student achievement through technology. Since enactment of NCLB, SETDA has agreed on common language and definitions to assist states as they comply with the federal NCLB requirements and guidelines. MSAD 56 has adopted this definition and goal.

SETDA's definition of technological literacy is *the ability to responsibly use appropriate technology to communicate, solve problems, and access, manage, integrate, evaluate, and*

*create information to improve learning in all subject areas and to acquire lifelong knowledge and skills in the 21st century.*

Over the next three years MSAD 56 will adopt the [NETS](#) standards for students, teachers and administrators.

### ***Identifying Best Practice***

The Maine Learning Technology Initiative ([MLTI](#)) [one-to-one](#) middle school experience has proven so successful and is being gradually duplicated in grade 6-12. Effective practices will be recognized, documented and made available to staff. Using the October 2006 [enGauge](#) survey data MSAD 56 will focus administrative and staff training on instructional practices proven to increase student achievement.

1. Training will create a shared understanding and knowledge of [21st Century skills](#).
2. Training will use the best teaching and learning practices for applying technology to maximize student learning.
3. Training will apply technology to facilitate a variety of effective assessment and evaluation strategies.
4. The Technology Integration Specialists ([TISs](#)) will deliver just-in-time, as well as, collaborative staff development to staff and students.

A 2004-05 Title IID grant brought the three-year [eMINTS](#) professional development program to MSAD #56. [eMINTS](#) changes how teachers teach and students learn. Its instructional model provides a research-based approach to organizing instruction, can be implemented in any subject area at any level and is being used to increase teaching effectiveness through technology use.

### ***Addressing Equity and Access***

Prerequisites of effective technology [integration](#) are ubiquitous and reliable access, adequate technology support and appropriate training. Although MSAD 56 scored in the exploration and transformation ranges in access and equity (2006 [enGauge](#) survey) Goal 3 outlines additional action steps. These steps will enable us to grow, expand and reach our long range goals. Establishing minimum computer specifications, identifying a common desktop, and more equitable distribution of resources K-12 will occur over the next three years.

### ***Measuring Progress***

The [enGauge](#) survey will be retaken midpoint in Year 2 and at the end of Year 3 to measure the district's progress. Progress will be considered from the individual, the school and district levels. Goals will be evaluated, progress noted and mid-course corrections made.

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

MSAD 56 believes in preparing students to be contributing individuals in a technology-oriented society. It is essential that teachers demonstrate the ability to integrate technology collaboration, communication, and productivity tools into their standards-based curricula to

increase student achievement. The district promotes instructional practices that provide students with the skills needed to optimize their post-secondary school choices and to lead productive lives.

### ***Professional Development Needs Assessment***

The North Central Regional Educational Laboratory (NCREL) Institute [enGauge](#) survey, administered district wide in October 2005, will be periodically re-administered. The survey provides a current technology snapshot and yielded valuable data regarding our place on the [integration](#) continuum. As part of this technology plan the data will be examined, focus areas identified and action plans implemented. Plans to retake the survey and measure progress are scheduled for April 2008 and April 2010.

Staff development with [integration](#) as its focus will be offered in many formats, including the following:

The [MLTI](#) (Maine Learning Technology Initiative) continues to be an excellent resource for providing staff development, assessment and technology [integration](#) for middle school teachers. This resource will be shared widely within the district. The current [eMINTS](#) classroom will be expanded to include mentor training for a minimum of five new teachers. Appropriate equipment will be provided.

Currently two [Technology Integration Specialists](#) (full time 6-12 and part time K-5) collaborate with teachers to support use of technology in delivery of curricula through a variety of instructional methods. In partnership, the Technology Integration Specialist and the teacher work toward integrating the use of hardware, software and Internet resources in support of student learning and assisting teachers in meeting technology-learning objectives. The [TISs](#) create learning resources for teachers, staff and students. These include Web sites, tutorials, interactive programs and databases that support teachers in integrating technology. Ideally, teachers will be guided and encouraged to develop their own resources, while the Technology Integration Specialist scaffolds their efforts by providing additional support as needed.

### ***Standards Based Assessments and Assessments for Learning***

MSAD 56 will administer the NWEA (Northwest Evaluation Association) in grades 6-8. NWEA provides research-based assessments, professional training, and consulting services to improve teaching and learning.

As Searsport District High School implements [standards based curriculum](#) and assessments a pilot group of teachers is using [Abante](#) Progression Toolbox, a data management tool. This program tracks and identifies how standards are taught and assessed, is able to access "Best Practice" lesson plans that are established from within the district or without, and identifies key elements that help support the delivery of instruction, such as, resources, concepts, or prerequisites.

At the elementary level student assessment data is entered into [Abante](#). Teachers will be able to enter data and view their own student results for forming reteaching groups, differentiating and informing their instruction.

Both programs provide support to a [constructivist](#) approach and assist teachers in collecting formative assessment data leading to more effective instruction. Both programs will be evaluated and potentially expanded. Many administrators and teachers use this data to drive their [Personal Learning Plans \(PLP\)](#).

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

See spreadsheets p. 28

## 9. Supporting Resources

The following supporting resources will be maintained and/or acquired to ensure successful and effective uses of technology. View for all details.

- Two Technology Integration Specialists (K-5 and 6-12)
- One Technology Director and one computer technician, an additional computer technician hired in 2007-08
- 2006 [enGauge](#) survey data and planned re-administration for establishing growth
- [Atomic Learning](#) online knowledge base
- Professional Development-information literacy, [Moodle](#), [Studywiz](#), [Marvel](#), [Abante](#) and many others
- Hardware replacement cycle developed and expansion of [one-to-one](#)
- Basic software desktop identified and supported with upgrades and training
- Asset management system consolidated, online work order system expanded and technology procedures documented

## 10. Steps to Increase Accessibility

Resource access at all levels is being increased. A timeline for upgrading hardware and software will be developed, a level of migration/parity determined and resources provided equitably grades K-12.

### ***Training Resources***

[Atomic Learning](#) provides web-based software training for applications our students and educators use everyday. The short, easy-to-view-and-understand tutorials are an integral part of our professional development program, a valuable curriculum supplement, and an anytime/anywhere training resource for staff and students.

### ***Teacher/Staff Access***

In order to support student learning all principals, teachers and Educational Technicians (6-12) are provided with a laptop.

### ***Middle and High School One-To-One***

Recognizing the success of the [MLTI](#) in grades seven and eight, MSAD 56 has provided [one-to-one](#) laptops from grade six through eleven. This plan addresses providing [one-to-one](#) to grade twelve students in 2007-08. Middle and high school students also have access to their own PC computer labs.

### ***Elementary School Access***

The three K-5 elementary schools currently have mobile carts of refurbished [MLTI](#) laptops. Searsport Elementary School students have a PC lab. Additional carts and laptops will be provided in 2007-08. Elementary students' needs and uses will be evaluated. Appropriate devices (i. e., [Alphasmarts](#)) will be provided for activities, such as, the keyboarding curriculum.

### ***Technical Support***

An additional technical support position will be added to increase efficient maintenance and repair of the district's hardware and software. An online repair system/help desk will be created allowing users to electronically report problems and provide better organization of work order requests. Reports generated from this system will provide analysis of requests and problems to better address technical problems and remediation.

## **11. Promotion of Various Curricula and Teaching Strategies That Integrate Technology**

The No Child Left Behind Act of 2001 (NCLB) charges the states to define a "qualified teacher," including the knowledge and skills necessary to integrate technology into curricula and instruction, and to ensure that every teacher has these skills. SETDA (State Educational Technology Directors Association) and [ISTE \(International Society of Technology in Education\)](#) have done considerable work at the national level on evaluating teacher technology [integration](#) effectiveness. We are monitoring this work and will implement what is useful and timely for MSAD 56. In addition, the technology committee and the staff development committee will analyze the 2006 (as well as, the 2008 and 2010 data as it is completed) [enGauge](#) survey data. Using this and other data, staff development will be designed and provided, best practice documented and communicated, and all staff encouraged to utilize these tools effectively.

MSAD #56 will seek to promote the [integration](#) of technology in all curriculum areas using the following three approaches:

### ***Providing close technology integration support***

Currently two Technology Integration Specialists (full time 6-12 and part time K-5) collaborate with teachers to support their use of technology in delivery of curricula through a variety of instructional methods. In partnership, the Technology Integration Specialist and the teacher

work toward integrating the use of hardware, software and Internet resources in support of student learning and assisting teachers in meeting technology-learning objectives. The [TISs](#) create learning resources for teachers, staff and students. These include Web sites, tutorials, interactive programs and databases that support teachers in integrating technology. Ideally, teachers will be guided and encouraged to develop their own resources, while the Technology Integration Specialist scaffolds their efforts by providing additional support as needed.

### ***Identification of “best practices” by classroom teachers***

Principals, departments, peers, and the [TISs](#) will all define ways to encourage and reward teachers who develop new ways to integrate technology. Those teachers who take a lead, and demonstrate innovative approaches will be recognized so that their innovations can be expanded to other classes and lead to further refinement and advances. The [eMINTS](#) professional development model is an example.

### ***Seeking outside resources***

MSAD #56 will continue to utilize outside resources, such as, [Moodle](#), [eMINTS](#), [Atomic Learning](#), the [CREST GIS/GPS](#) training and [MLTI](#) training.

## **12. Professional Development**

The technology committee and the staff development committee will analyze the 2006 (as well as, the 2008 and 2010 data as it is completed) [enGauge](#) survey data. Using this and other data, staff development will be designed and provided, best practice documented and communicated, and all staff encouraged to utilize these tools effectively. MSAD #56 will seek to promote the [integration](#) of technology in all curriculum areas by providing training opportunities that:

1. Create a shared understanding and knowledge of [21st Century Skills](#).
2. Use the best teaching and learning practices for applying technology to maximize student learning.
3. Apply technology to facilitate a variety of effective assessment and evaluation strategies.

### ***Providing close technology integration support***

Currently two Technology Integration Specialists (full time 6-12 and part time K-5) collaborate with teachers to support their use of technology in delivery of curricula through a variety of instructional methods. In partnership, the Technology Integration Specialist and the teacher work toward integrating the use of hardware, software and Internet resources in support of student learning and assists teachers in meeting technology-learning objectives. The [TISs](#) create learning resources for teachers, staff and students. These include Web sites, tutorials, interactive programs and databases that support teachers in integrating technology. Ideally, teachers will be guided and encouraged to develop their own resources, while the Technology Integration Specialist scaffolds their efforts by providing additional support as needed.

The [TISs](#) structure the technology education of teachers. Though the Technology Integration Specialist may not directly conduct all training, lab work or classes regarding computer use,

they will coordinate instruction to meet technology proficiency goals. Because the positions are considered essential to meeting the district's technology goals, the part time [TIS](#) position will be increased to full time in 2007-08.

### ***Identification of “best practices” by classroom teachers***

The Maine Learning Technology Initiative ([MLTI](#)) [one-to-one](#) middle school experience has proven so successful and is being gradually duplicated in grade 6-12. Effective practices will be recognized, documented and made available to staff. Using the October 2006 [enGauge](#) survey data MSAD 56 will focus administrative and staff training on instructional practices proven to increase student achievement.

Principals, departments, peers, and the [TIS](#)s will all define ways to encourage and reward teachers who develop new ways to integrate technology. Those teachers who take a lead, and demonstrate innovative approaches will be recognized so that their innovations can be expanded to other classes and lead to further refinement and advances. The [eMINTS](#) professional development model is an example.

Staff development opportunities are offered in a differentiated manner in order to meet the staff at their skill level and move them along the learning continuum. Staff are encouraged to make technology a component of their Professional Learning Plan ([PLP](#)).

### ***Seeking outside resources***

MSAD #56 will continue to utilize outside resources, such as, [MeVL/Moodle](#), [eMINTS](#), [Atomic Learning](#), [Web 2.0](#), the [CREST GIS/GPS](#) training and [MLTI](#) training.

## **13. Innovative Delivery Strategy**

Located along scenic, coastal Route 1, MSAD 56 remains physically and economically isolated from many cultural and educational resources. Exploring innovative delivery strategies has always been a cost effective measure in overcoming that isolation. Our community's commitment to funding technology and its effective use enables our students to "connect" at many levels.

### ***[ATM](#) Distance Learning***

Using advanced video-conferencing technology or [ATM](#) the Maine Distance Learning Project is designed to help provide students throughout the state of Maine with educational opportunities that they might not otherwise have access to due to geographical location. As an [ATM](#) site Searsport District High School will continue to receive and broadcast day/evening courses to secondary, adult education and University students.

### ***Content Management Tools***

Based on the social constructionist philosophy, [Moodle](#) was developed to encourage interaction between students and to improve learning through the construction of ideas and concrete “things” for others to experience. All assignments, communication and projects can be composed, submitted, and assessed online. Nine staff members received [Moodle](#) course management tool training through [MeVL](#) over our local [ATM/Distance Learning](#) connection. A small pilot will begin in 2007-08 with expansion planned in following years .

[StudyWiz](#) is a Virtual Learning Environment for schools, designed to make eLearning intuitive and practical for teachers, students and parents. Provided through [MLTI](#), it gives grades 7 and 8 teachers a controlled, interactive platform enabling them to use their existing resources in new and powerful ways.

Training in Moodle and [StudyWiz](#) will be offered, pilots developed and both evaluated for possible expansion.

### **Online Resources**

Plato, a course content provider, provides content tailored to selected student's particular needs. It extends the school day and offers non-traditional students the means to accomplishing their learning goals. The Searsport District High School/MS Media Center and all three elementary Media Center catalogs are now online and a resource to anyone with Internet access.

### **[Acadam-e](#)**

These UMO courses are being delivered through a combination of on-line, videoconferencing and in-person teaching techniques. All of the slots designated for Searsport District High School students are full.

### **One-to-One**

The Maine Learning Technology Initiative ([MLTI](#)) and the Searsport District High School expansion provides [one-to-one](#) technology to all MSAD 56 students in grades 6-11 (grade 12 to be added 2007-08). Traveling with the students at school and at home, this wireless technology tool has become totally integrated. The benefits to student learning have been exponential. All [one-to-one](#) students have wireless access to vast learning resources--encyclopedias, dictionaries, libraries, research, experts--when ever and where ever they need it.

## **14. Accountability Measures**

The NCREL Institute [enGauge](#) survey administered district wide in October 2005, will be periodically re-administered. The survey provides a current technology snapshot and yielded valuable data regarding our place on the [integration](#) continuum. As part of this technology plan the data will be examined, focus areas identified and action plans implemented. Plans to retake the survey and measure progress are scheduled for midpoint in Year 2 and the end of Year 3. This baseline data will be the basis for developing the 2011-14 Technology Plan.

Process, progress and accountability measures are described in all goals. The Technology Committee, Staff Development Committee under the direction of the Curriculum Coordinator will meet monthly to plan and implement the action steps. Evaluation of progress will be based on the extent to which the plan action steps:

- effectively integrate technology into curriculum and instruction,
- increase the ability of teachers to teach effectively, and
- enable students to meet the standards in Maine's Learning Results.

## **eMINTS--enhancing Missouri's Instructional Networked Teaching Strategies**

In 2005 the eMINTS National Center began a collaboration with the state of Maine to realize the goal of transforming teaching using inquiry-based methods and strategies powered by technology. eMINTS classrooms have been established in 60 classrooms located in 45 school districts and distributed across eight regions in the state. Two of those classrooms are located at Searsport District Middle School. Teachers Gail Anthonis and Natalie Merrill, with regional trainer/mentor John Stauffer, are in the second and first years respectively of their eMINTS partnership. MSAD 56 anticipates adding a total of four additional teachers and their classrooms using the eMINTS4All model in the 2007-08 school year.

From eMINTS Regional Trainer/Mentor John Stauffer: eMINTS changes how teachers teach and students learn. Its instructional model provides a research-based approach to organizing instruction and can be implemented in any subject area at any level. The eMINTS instructional model enables educators to

1. create classrooms where all students are motivated to succeed socially and academically,
2. fully incorporate technology investments into teaching and learning,

3. complement existing preK-16 curriculum with critical-thinking requirements found in national, state and local curriculum standards and
4. build enthusiasm and creativity into daily teaching.

There are three program levels that [MLTI/eMINTS](#) offers:

[MLTI/eMINTS4All](#): a professional development program that is offered only in schools with full official eMINTS classrooms as a way to realize even greater student gains (social, academic, and technological). This program provides approximately forty hours of training per year for up to two years to participants with six visitations per participant by the eMINTS Trainer/Mentor. There are certain hardware requirements with this program that the participating schools must meet.

[MLTI/eMINTS Custom Professional Development](#): is a quality professional development program that uses the [MLTI/eMINTS Professional Development](#) modules and is intended for schools and districts that qualify under NCLB Act Title IID. It is delivered at the request of the school or district and is based on an analysis of school or district needs. Custom PD can be delivered over a period of time and can be designed to build both technology skills and teaching strategies. There are no extra hardware procurement requirements with this program.

[MLTI/eMINTS Samplers](#): are special sessions that are generally held in the summer (or in service days). Samplers provide a concentrated learning experience for non-[MLTI/eMINTS](#) educators who wish to improve their basic technology [integration](#) skills using a constructivist, inquiry-based pedagogical approach to teaching. There are no extra hardware procurement requirements with this program.

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January 4, 2007

**Draft of Refreshed ISTE NETS for Students (1/4/07)  
Working Document – Copyright ISTE® 2006 - 2007**

**“What students should know and be able to do to learn effectively and live productively in an increasingly digital world ...”**

#### **I. Creativity and Innovation (new)**

Students think creatively, construct knowledge, and develop innovative products using technology. Students:

- A. apply existing knowledge to generate new ideas and products.
- B. use technology for creative self-expression.
- C. use systems thinking to explore complex issues.
- D. identify trends and forecast possibilities.

#### **II. Communication and Collaboration (4)**

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. Students:

- A. collaborate, publish, and interact with peers, experts, and others employing a variety of digital media and formats.
- B. communicate information and ideas effectively to multiple audiences utilizing 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.

**III. Research and Information Retrieval (5)**

Students access, retrieve, manage, and evaluate information using digital tools. Students:

- A. locate, organize, analyze, evaluate, synthesize, and use information from a variety of sources and media.
- B. evaluate and select information sources and technological tools based on the appropriateness to specific tasks.
- C. process data and report results.

**IV. Critical Thinking, Problem-Solving and Decision-Making (6, 3)**

Students use critical thinking skills to plan and conduct research, manage projects, solve problems and make informed decisions using appropriate technology tools. Students:

- A. identify and define authentic problems and significant questions for investigation and plan strategies to guide inquiry.
- B. plan and manage activities to develop solutions and complete projects.
- C. collect and analyze data to identify solutions and make informed decisions.
- D. use multiple processes and diverse perspectives to explore alternative solutions.

**V. Digital Citizenship (2)**

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

- A. advocate and practice safe, responsible use of information and technology.
- B. exhibit positive attitudes toward technology uses that support collaboration, learning, and productivity.
- C. demonstrate personal responsibility for lifelong learning.
- D. exercise proactive leadership for digital citizenship.

**VI. Technology Operations and Concepts (1, 3)**

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

- A. understand and use technology systems.
- B. identify and use applications effectively and productively.
- C. troubleshoot systems and applications.
- D. transfer current knowledge to learning of new technologies.

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• Please provide feedback to ISTE by completing the survey at [www.iste.org/nets-survey](http://www.iste.org/nets-survey).

**Moodle--Modular Object-Oriented Dynamic Learning Environment**

Nine MSAD #56 teachers attended two days of Moodle training and will begin a small pilot with their students. As this cadre gains expertise they will become trainers for the next wave of staff. This incremental expansion increases scalability as the technical staff builds the server infrastructure needed to host our local system.

***What is Moodle?***

Moodle is a course management system designed with learners in mind. Based on the social constructionist philosophy, Moodle was developed to encourage interaction between students and to improve learning through the construction of ideas and concrete “things” for others to experience. Moodle is an open source project, which means the Moodle course management software is free to download. Furthermore, the Moodle open source project has a community of supporters and developers who are instrumental in Moodle’s continued growth.

### ***Who is Using Moodle?***

Today, over 11,000 organizations in 153 countries have registered Moodle sites. Moodle is used in public schools, private schools, home schools, universities and corporate training situations. Learners using Moodle range from elementary school students to college scholars and beyond. Moodle comes complete with many activity modules.

*For more information go to [Moodle.org](http://Moodle.org)*

## **Plato and Agilemind**

*Cost of Agilemind is provided by the [Great Maine Schools Project grant](#)*

### ***Use of Computerized Lessons***

Thanks to the generous support of the Gates Foundation, MSAD #56 has access to the Agilemind software created by educators in Texas and used throughout the country. We also are using Plato systems. These systems, and others as they are identified, will be used in multiple ways.

### ***Remediation***

Both Agilemind and Plato systems software are currently being used for remediation where students are lacking skills that they need to be successful at their grade level in mathematics.

Plato systems is organized in a hierarchy of skills beginning with arithmetic and going through precalculus and calculus. Students do not pass from one level until they have demonstrated understanding of the prior level of material through online assessments. Plato systems lessons can be done relatively independently with students working on their own and requiring little additional instruction.

Agilemind is organized by course, and provides good animation and interactive tools that help students develop deeper understanding of the mathematics they are studying. Guided assessments help students practice the mathematics they are learning and additional assessments check for understanding. Agilemind is most successful as a way to reinforce material covered in instruction.

An advantage of both applications is mobility. The lesson can be covered by the student (in the case of Agilemind) anywhere there is internet access. For Plato systems, we envision widespread access, as well, with some students being provided access at home.

### ***Enrichment***

Our students are not limited by the course offerings of the mathematics department, but can explore and study different topics on their own with either Agilemind or Plato systems. A student who has been studying in an Integrated Math course may wish to supplement their instructions with a focused study of algebra or geometry topics.

### ***Supplementing Classroom Instruction***

Agilemind is designed to be used by the teacher to engage the student in interactive exploration of mathematical concepts. We have through the generosity of the Gates Foundation, been given two LCD projectors which enable teachers to project an Agilemind lesson. Explorations can now be done as a class and students can be engaged in a classroom discussion on the material.

### ***Differentiated Instruction***

Teachers may use Plato systems and Agilemind within a course to vary assignments for individuals and groups in ways that encourage greater mastery and learning. Students are not allowed to fail, but are given appropriate instruction until the concepts of the lesson are mastered.

### ***An Example: Exploring quadratic functions***

In the 1970s, in order to understand how these equations behave, students were given graph paper and a pencil. They built tables of  $x/y$  values and graphed these for different functions. They eventually discovered that when the coefficient associated with the  $X^2$  term is negative, the parabola drawn will open downwards, and when it is positive, the parabola will open upwards. They see why this happens but during an individual class, only a dozen or so functions can be explored.

In more recent years, students use graphing calculators. Input a particular function, and the graph can be drawn automatically on the calculator. Tracing along the curve, the student sees

how the x and y values change. Hundreds of functions can be compared within the class period.

In Agilemind, the software displays a reference graph of  $y = x^2$ . Using sliders that are dragged via a mouse, the student can see the immediate effect of changing the values of the coefficient associated with the  $X^2$  term, as well as, other terms in the equation. The effect of changing the value of each term can be explored independently and the effect of the change is immediately visible on the screen.

## ***The enGauge 21<sup>st</sup> Century Skills***

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The *enGauge* 21<sup>st</sup> Century Skills were developed through a process that included literature reviews, research on emerging characteristics of the Net-Generation, a review of current reports on workforce trends from business and industry, analysis of nationally recognized skill sets, input from educators, data from educator surveys, and reactions from constituent groups. Many of these important works, in particular the nationally recognized skill sets, are cross-matched to the *enGauge* 21<sup>st</sup> Century Skills.

Based on two years of research, the *enGauge* 21<sup>st</sup> Century Skills represent the fresh, serious, new perspective required in light of recent historical events, globalization, and the idiosyncrasies of the Digital Age. The following skill clusters, when considered within the context of rigorous academic standards,

are intended to provide the public, business and industry, and educators with a common understanding of – and language for discussing – what is needed by students, citizens, and workers in the Digital Age.

### **Digital-Age Literacy**

- Basic, scientific, economic, and technological literacies
- Visual and information literacies
- Multicultural literacy and global awareness

### **Inventive Thinking**

- Adaptability/managing complexity
- Self-direction
- Curiosity, creativity, and risk-taking
- Higher-order thinking and sound reasoning

### **Effective Communication**

- Teaming, collaboration, and interpersonal skills
- Personal, social, and civic responsibility
- Interactive communication

### **High Productivity & Quality, State-of-the-Art Results**

- Ability to prioritize, plan, and manage for results
- Effective use of real-world tools
- The ability to create relevant, high-quality products

## **GRANTS Contributing to MSAD 56 Technology**

### **CREST/GIS**

A three-year, \$1.2 million grant to the Island Institute from the National Science Foundation (NSF), a U.S. government agency. The grant has been made under NSF's "ITEST" (Information Technology Experiences for Students & Teachers) program. The project that has been funded is called "CREST" (Community for Rural Education Stewardship and Technology), and in addition to the Island Institute, involves 11 island and coastal high schools (including Searsport District High School) and middle schools, a number of academic institutions, and another national nonprofit, the Rural School and Community Trust. Island communities will benefit from this grant in the form of technology equipment and stipends for students and teachers to attend CREST career fairs, college campus visits, and summer institutes. This teacher training from grant resulted in an SDHS GIS/GPS course being offered.

### **ERATE**

Funded by telephone user fees this federal program provides states with funding, and schools and libraries with reimbursement monies based on their free and reduced lunch numbers. Qualifying services for reimbursement may include telephone service, internal network

connections and networking equipment. The following programs are totally or partially funded by ERATE.

**Asynchronous Transfer Mode (ATM)/Distance Learning**

Part of a statewide distance learning network of schools and colleges, the ATM room at Searsport District High School can receive and send broadcasts from any other networked site. Our students, staff and community members can receive classes not offered in MSAD 56 (adult education and university courses ) and other trainings. Recently the superintendent and school Board were able to see and hear a live broadcast by the Commissioner of Education in Augusta without leaving Searsport.

[Marvel-Maine's Virtual Library](#)

Thousands of magazines, newspapers, and reference books are available anywhere in the State of Maine through the online resources of MARVEL. Training in its use is provided to all students and staff as appropriate.

[MeVL-Maine's Virtual Learning Project](#)

Offers training and Moodle hosting for teachers who have completed training.

[Great Maine Schools Project Grant](#)

In 2002, the Great Maine Schools Project selected several Maine high schools to receive a five-year, \$400,000 grant aimed at implementing transformational, school-wide reforms based on the Core Principles and Practices of Promising Futures: A Call to Improve Learning for Maine's Secondary Students. The intent of this initiative is to create a portfolio of high-performing, 21st-century high schools that can serve as models for others in the state and the nation. This program is not about school improvement; it is about systemic, whole-school reinvention that prioritizes individual student needs above all else. Working from the ground up, the ten Promising Futures High Schools are reorganizing programs and governance structures, and incorporating instructional practices based on the best thinking and educational research available. Searsport District High School received one of eight grants awarded. The programs below are funded through this grant.

[Acadam-e](#)

Educational technology and the University of Maine's desire to provide college courses to outstanding Maine high school students are combined in Acadam-e, Maine's first early college distance education program. Beginning in the fall semester of 2006, UMaine will offer 14 courses, for credit, to Maine high school seniors. The courses will be delivered through a combination of on-line, videoconferencing and in-person teaching techniques.

[AgileMinds](#)

[Maine Learning Technology Initiative \(MLTI\)](#)

In its second 4 year round, the MLTI provides 37,000 laptops to Maine's 7<sup>th</sup> and 8<sup>th</sup> grade teachers and students. Staff development, best practice and student achievement through technology integration are its focus. In addition, the programs below are funded through this grant.

[Studywiz](#)

A content management system for schools, designed to make eLearning intuitive and practical for teachers, students and parents. Studywiz is provided to all grade 7 and 8 teachers and students by the MLTI.

**One-to-one expansion**

All local end of round 1 laptops were purchased at \$40 each, refurbished, and memory added a reduced rate through a grant. These units were distributed one-to-one for grade 6 and on carts in the K-5 schools.

**MBNA**

Before merging with Bank of America this local credit card company awarded millions of dollars (Excellence in Education grants) to schools in its employee areas. The grant of \$15,874 awarded to MSAD 56 in 2006 to expand the laptops was the largest ever awarded to a district.

**Title IID**

A federal grant of two types—formula and competitive. MSAD 56 receives a formula grant amount based on number of students. The state of Maine awards its competitive Title IID funds based on the district's Maine Educational Assessment (MEA) scores and income level. MSAD 56 applied for and was awarded a competitive grant that funds the [eMINTS](#) project.

**GLOSSARY**

[A](#) [D](#) [C](#) [D](#) [E](#) [F](#) [G](#) [H](#) [I](#) [J](#) [K](#) [L](#) [M](#) [N](#) [O](#) [P](#) [Q](#) [R](#) [S](#) [T](#) [U](#) [V](#) [W](#) [X](#) [Y](#) [Z](#)

**A**

**Abante Progression Toolbox**

A database designed for MSAD 56 where student assessment data is entered. Teachers can examine data for their classroom students and create lessons specific to their students needs. Administrators can examine school and district data to determine effective curriculum

## Acadam-e

Educational technology and the University of Maine's desire to provide college courses to outstanding Maine high school students are combined in Acadam-e, Maine's first early college distance education program. Beginning in the fall semester of 2006, UMaine will offer 14 courses, for credit, to Maine high school seniors. The courses will be delivered through a combination of on-line, videoconferencing and in-person teaching techniques.

## AgileMinds

### **Alphasmart**

A brand of lightweight, rugged word processing device priced at about a fifth of a laptop. These are practical alternatives when the need is keyboard practice or just word processing.

## Atomic Learning

A subscription knowledge base of online lessons and help for common software applications. MSAD 56 provides this tool for all staff and students grade 6-12..

### **Asynchronous Transfer Mode (ATM)/Distance Learning**

Part of a statewide distance learning network of schools and colleges, the ATM room at Searsport District High School can receive and send broadcasts from any other networked site. Our students, staff and community members can receive classes not offered in MSAD 56 (adult education and university courses ) and other trainings. Recently the superintendent and school Board were able to see and hear a live broadcast by the Commissioner of Education in Augusta without leaving Searsport.

## **B**

### **blog**

Short for "web log". A frequent, chronological publication of personal thoughts and Web links. Used for educational purposes to hold discussions, write from a prompt, and post information.

## **C**

### **constructivism**

A philosophy of teaching referring to the idea that learners construct knowledge for themselves---each learner individually (and socially) constructs meaning---as he or she learns.

## CREST/GIS

A three-year, \$1.2 million grant to the Island Institute from the National Science Foundation (NSF), a U.S. government agency. The grant has been made under NSF's "ITEST" (Information Technology Experiences for Students & Teachers) program. The project that has been funded is called "CREST" (Community for Rural Education Stewardship and Technology), and in addition to the Island Institute, involves 11 island and coastal high schools (including Searsport District High School)and middle schools, a number of academic institutions, and another national nonprofit, the Rural School and Community Trust. Island communities will benefit from this grant in the form of technology equipment and stipends for students and teachers to attend CREST career fairs, college campus visits, and summer institutes. This teacher training from grant resulted in a high school GIS/GPS course being offered.

## **D**

## **E**

eMINTS --see p. 18

## enGauge survey

A survey tool to assist districts as they prepare their three year technology plans. MSAD 56 took the survey in October 2006 and will retake at two additional times covering the 2007-10 technology plan. Data is analyzed and used to measure progress.

### **ERATE**

Funded by telephone user fees this federal program provides states with funding and schools and libraries with reimbursement monies based on their free and reduced lunch numbers. Qualifying services for reimbursement may include telephone service, internal network connections and networking equipment.

F

G

### **Geographic Information System (GIS)**

GIS is a collection of computer hardware, software, and geographic data for capturing, managing, analyzing, and displaying all forms of geographically referenced information. <http://www.gis.com/whatisgis/index.cfm>

### **Global Positioning Systems (GPS)**

The Global Positioning System (GPS) is a satellite-based navigation system made up of a network of 24 satellites placed into orbit by the U.S. Department of Defense. GPS was originally intended for military applications, but in the 1980s, the government made the system available for civilian use. GPS works in any weather conditions, anywhere in the world, 24 hours a day. There are no subscription fees or setup charges to use GPS. <http://www.garmin.com/aboutGPS/>

### **Great Maine Schools Project Grant**

In 2002, the Great Maine Schools Project selected several Maine high schools to receive a five-year, \$400,000 grant aimed at implementing transformational, school-wide reforms based on the Core Principles and Practices of Promising Futures: A Call to Improve Learning for Maine's Secondary Students. The intent of this initiative is to create a portfolio of high-performing, 21st-century high schools that can serve as models for others in the state and the nation. This program is not about school improvement; it is about systemic, whole-school reinvention that prioritizes individual student needs above all else. Working from the ground up, the ten Promising Futures High Schools are reorganizing programs and governance structures, and incorporating instructional practices based on the best thinking and educational research available. Searsport District High School received one of eight grants awarded.

H

I

### **Integration**

Technology Integration is a term used by educators to describe effective uses of technology by teachers and students in K-12 and university classrooms. Teachers use technology to support instruction in language arts, social studies, science, math, or other content areas. When teachers integrate technology into their classroom practice, learners are empowered to be actively engaged in their learning.

[http://en.wikipedia.org/wiki/Technology\\_Integration](http://en.wikipedia.org/wiki/Technology_Integration)

### **ISTE (International Society of Technology in Education)**

ISTE is a not-for-profit organization dedicated to supporting the use of information technology to aid in learning, teaching of K-12 students and teachers.

### **iTeam**

A team of students providing low level technical support and trained by a teacher. iTeams are created in many middle and high schools to support the use of technology and cultivate technical/people skills.

J

K

L

M

### **Maine Learning Technology Initiative (MLTI)**

In its second 4 year round, the MLTI provides 37,000 laptops to Maine's 7<sup>th</sup> and 8<sup>th</sup> grade teachers and students. Staff development, best practice and student achievement through technology integration are its focus.

### **MBNA**

Before merging with Bank of America this local credit card company awarded millions of dollars (Excellence in Education grants) to schools in its employee areas. The grant awarded to MSAD 56 in 2006 to expand the laptops was the largest ever awarded to a district.

### **Marvel-Maine's Virtual Library**

Thousands of magazines, newspapers, and reference books are available anywhere in the State of Maine through the online resources of MARVEL. Training in its use is provided to all students and staff as appropriate.

### [MeVL-Maine's Virtual Learning Project](#)

Offers training and Moodle hosting for teachers who have completed training.

### [Moodle--Modular Object-Oriented Dynamic Learning Environment](#)

Moodle is a course management system (CMS) - a free, Open Source software package designed using sound pedagogical principles, to help educators create effective online learning communities. [For more information.](#)

## N

### [National Educational Technology Standards for Students \(NETS\)](#)

The National Educational Technology Standards for Students is designed to provide teachers, technology planners, teacher preparation institutions, and educational decision-makers with frameworks and standards to guide them in establishing enriched learning environments supported by technology. Click above to view the new draft standards (1/2007).

### [Netsmartz](#)

One of several free programs with curricula created to provide students, parents and schools with materials to become knowledgeable about and teach online safety.

## O

### **One-to-one**

Providing laptop computers to students on a one-to-one basis--that is, one student, one laptop computer. This elevates the use of the technology for instruction from a "special" resource to an integral part of the teaching and learning experience. Research is available detailing the very positive impact that technology--particularly when implemented through one-to-one laptop computer initiatives--can have on teaching and learning. Roughly one in six school districts in the country now have a laptop program in one or more of their schools.

## P

### **Personal Learning Plan (PLP)**

Annually all MSAD 56 teaching and administrative staff develop a personal learning plan with learning objectives that they will work on and complete during the year. Examples--implementation of an instructional strategy and measuring its effectiveness on student learning, reading and research, workshops, or independent study. This method of staff development personalizes learning and greatly extends the amount of training that can be accomplished within the school calendar.

### [Plato](#)

## Q

## R

## S

### [Standards based curriculum and assessments](#)

Standards of what every student or child is expected to know are developed, and a score is set compared to these benchmarks rather than a ranking compared to a norm. Through their work students provide evidence of their learning and have multiple opportunities to show this evidence. Assessment typically looks like Meets, Partially Meets and Does Not Meet rather than a letter or number grade. Searsport District High School is the first Maine high school to make meeting standards, not accumulating Carnegie units, the measure of graduation.

### [Studywiz](#)

A content management system for schools, designed to make eLearning intuitive and practical for teachers, students and parents. Studywiz is provided to all grade 7 and 8 teachers and students by the MLTI.

## T

### [Technology Integration Specialist](#)

A school-based position whose primary concern is empowering teachers to harness the power of technology integration for student learning.

### **Title IID**

A federal grant of two types —formula and competitive. MSAD 56 receives a formula grant amount based on number of students. Th state of Maine awards its competitive Title IID funds based on the district's Maine Educational Assessment (MEA) scores and income level. MSAD 56 applied for and was awarded a competitive grant that funds the [eMINTS](#) project.

### 21st Century Skills—See page 23

Studies identify these skills as needed by students, citizens, and workers in the Digital Age.

U

V

W

### Web 2.0

A term often applied to a perceived ongoing transition of the World Wide Web from a collection of websites to a full-fledged computing platform serving web applications to end users. Ultimately Web 2.0 services are expected to replace desktop computing applications for many purposes. [en.wikipedia.org/wiki/Web\\_2.0](http://en.wikipedia.org/wiki/Web_2.0)

### **wiki**

Wiki is a piece of software that allows users to freely create and edit Web page content using any Web browser. Wiki is unusual among group communication mechanisms in that it allows the organization of contributions to be edited in addition to the content itself.

X

Y

Z