

20012-2015 Maine School Administrative District #52 Technology Plan

EXECUTIVE SUMMARY

Technology is an essential component for teaching and learning. This plan calls for engaging and empowering personalized learning experiences for learners of all ages. The development of this plan was driven by the goals set forth in the National Educational Technology Plan of 2010, the National Educational Technology Standards of the International Society for Technology in Education and our District Vision and Mission. Technology must be available and supported for teachers and students at all times.

Our plan presents four goals: Teaching and Learning, Assessment, Digital Citizenship and Equitable Access. It makes technology available for anytime learning through ubiquitous access to resources. The promotion of digital citizenship for staff and students is emphasized across the curriculum through creativity, exploration/research, problem solving and communication. To this end, the plan calls for integration through across all grades to offer learning opportunities not previously possible. The district will continually research and evaluate new technologies, pursuing those that show promise in educational application. Once implemented, training on new technologies for end users and supporting staff will be offered.

Implementation of this plan will meet the needs of the MSAD#52 community and directly address the value of technology in education across all grades PreK – Adults.

Community and Parental Involvement

MSAD#52 has maintained a smooth working relationship with the community for many years. We strive to plan for the best learning environment for all students PreK through Adults.

The following teams assume the leadership role:

Technology Advisory Team

Membership: Educational Coordinator, School Board representatives, Site Educator representatives and Community members.

Purpose: To review district technology, research the community vision for educational technology, serve as a cohesive group for communication among the sites and the community and to advise the district on future planning.

Supporting website: <http://techcommittee.msad52.wikispaces.net/>

Information Literacy Team

Membership: Technology Teachers. Media Specialists and library support personnel from each site, Educational Technology Coordinator

Purpose: To communicate, brainstorm, and plan technology issues across the district; in the area of Information Literacy including Digital Citizenship, train for new initiatives; collaborate on technology budgeting and research new technology solutions.

Cross Site Technologists

Membership: Technology Teachers and support personnel from each site, Educational

Technology Coordinator, Network Manager, Data Manager

Purpose: To communicate, brainstorm, and plan technology issues across the district; train for new initiatives, collaborate on technology budgeting and research new technology solutions for the district.

We involve the general public through digital newsletters, website resources and feedback forms, blogging, forums, and telephone availability. The student information system, Power School, allows parents access to information about their children in terms of attendance, grades, historical records, etc.

Out district web site has information about the district and each school has a site highlighting its policies, curriculum, teacher information, etc. The community has web access to the PK-12 library systems.

We use Alert Now to not only inform parents about school cancellations but also with messages of interest or urgency.

MSAD#52 supports an active Adult Education system with extensive opportunities for the community. These classes are housed within the Central Office and school facilities.

Community involvement is evidenced through hits on the district web pages, email communications and the number of volunteers found in each school daily.

Evidence:

<http://www.msad52.org>

<http://blogs.msad52.org>

<http://wikis.msad52.org>

Vision

To provide support to all members of the MSAD#52 community in meeting the National Technology Goals, the Maine Learning Results standards, the Common Core of Learning, New England Common Assessment Program standards and the District Vision, Mission and Goals.

Technology today is the foundation supporting and advancing education. It serves a crucial role in delivery, storage, assessment, research and design of instructional, operational and administrative functions. The move in education toward authentic assessments, extensive data gathering, warehousing and analysis is rapid. MSAD#52 will move toward online courses, internet research and ubiquitous integration to transform teaching methods and student learning in all curriculum areas.

Supporting documents:

National Technology Standards: <http://www.iste.org/standards.aspx>

Maine Learning Results: <http://www.state.me.us/education/lres/lres.htm>

District Vision/Mission: <http://msad52.org/images/stories/district/vision-mission.jpg>

Common Core State Standards: <http://www.corestandards.org/>

Goals

Equitable Access

- * - infrastructure and individual access
- * - universal design and access
- * - distance learning
- * - communication tools

Teaching and Learning: All learners will have engaging and empowering learning experiences both in and out of school.

- * - provide instructional material and standards reflecting 21st century expertise for all learners
- * - implement a formal Professional Development Program
- * - supply ongoing support
- * - integrate curriculum to reflect the power of technology to improve learning
- * - ensure staff and student proficiency

Use Technology to Assess, Administer and Develop across the District

- * - establish a data warehouse to drive continuous improvement
- * - assess and document student progress for improving learning
- * - manage employee information

Digital Citizenship

- * - deliver K-6 curriculum through team teaching within the curriculum
- * - present 7th grade bootcamp including digital citizenship topics
- * - present 8th grade curriculum through direct instruction
- * - provide information through Civil Rights Teams and Guidance Department
- * - deliver curriculum through high school Health curriculum
- * - deliver curriculum through 21st Century Skills elective course at 9-12

Present Status

PK-3

There are 3 schools serving this population: Greene Central School, Leeds Central School and Turner Primary School have existing labs and carts with district support available. Curriculum and technology staffs are in place for integration and support.

4-8

There are 4 schools serving this population:

Greene Central, Leeds Central and Turner Elementary Schools have existing labs and carts in each building. Technology staff is in place for integration and support.

Tripp Middle School is participating in the MLTI laptop program. Laptop hardware support and computer instruction are in place.

9-12

Leavitt Area High School has a Netbook 1 to 1 program. TV-11 is in operation.

Technology staff is in place for support. Our desire is to extend 1 to 1 technology beyond the 7-12th grades. In 2012, each K-3 classroom will receive four devices.

Web-based services

MSAD#52 is moving many services and resources to a web-based model:

- ⤴ Power School - the student information system
- ⤴ Google Applications for Education - student and staff systems for email and collaboration suite
- ⤴ GLPI - inventory and help desk program is used to track district hardware
- ⤴ Moodle - course management system for distance learning
- ⤴ Wikispaces - wiki platform
- ⤴ Edublogs Campus edition - blogging platform
- ⤴ Noodle Tools - Research and Organizational tool
- ⤴ Alexandria - Library software

Network Infrastructure

MSAD#52 is a 65% eRate receiver. There are few businesses in the district making collaboration difficult. Although our communities have been extremely supportive of our budgets, it is becoming ever more difficult to maintain our programs. We have been able to use grants to supplement our technology purchases; Title IID, Rural Schools, Rural Utilities Services. MSAD#52 also collaborates with surrounding districts for purchases and professional development

Each school and the central office has a data network in place. The networking operating system (NOS) supports low cost servers and the Windows, Linux and MacOX operating systems. We implement hardware to support open standards, to be reliable, secure and cost effective. The physical layer for networking is a category five unshielded twisted pair cable. Each classroom should have at least three data outlets and sufficient electrical capacity to handle the hardware. The data layer is Ethernet (10-100Mbps) with one network interface card per machine and compatible switches. A Wide Area Network for ease of document transfer and service is being studied with partial implementation possible in 2012. In addition to the wired network, we also provide wireless computing at each school. Video conferencing equipment is available for all grades.

POTS (telephone services)

Each site is dependent on Centrex system at this time. VOIP (voice over IP) is being studied for implementation across the Turner facilities in 2012.

Adult Education

Adult Education is housed with the District Offices and their equipment and software are supported by district personnel. Integration and direct teaching of technology is part of the Adult Education program with their schedule published on the state website and linked to the district website. Online learning offerings are being planned. All technology resources are shared with the Adult Education department.

Statewide website: <http://msad52.maineadulted.org/>

Strategies for Teaching and Learning

| Objective | Related Activities | Person(s) Responsible | Time Frame | Anticipated Outcomes | Budget Consideration |
|--|----------------------------------|--|------------|--|---|
| Teacher proficiency on NETS near 100% | Professional Development Program | Educational Technology Coordinator | Ongoing | Training registrations Teacher portfolios | NCLB funds \$3000 / yr supporting materials |
| | Courses offered | Educational Technology Coordinator | Ongoing | Completion certification teacher usage | NCLB funds, Grants \$2000 / yr materials |
| | Integration support | Ed. Tech Coordinator Assistant Superintendent for Instruction | Ongoing | Project documentation | Budget, eRate \$5000 / yr for materials |
| Students digitally literate by 8th grade | Develop student skills | Staff | Ongoing | Observed proficiency | None |
| | Curriculum K-8 | Teaching Staff | Ongoing | Curriculum in place and implemented | None |
| | Assess students | Staff | Yearly | Digital documents Observations | None |
| Distance Learning | Infrastructure | Network Manager | Ongoing | Network in place | Targeted Funds eRate \$3500 / yr |
| | Staff Training | Educational Technology Coordinator | Ongoing | Teachers trained Instruction online | None |
| | Courses implemented | Educational Technology Coordinator and Teaching staff | Ongoing | CMS in place and Courses documented | Budget – registration fees dependent on student numbers |
| Universal design | Staff Training | Educational Technology Coordinator. Spec. Ed. Director | Ongoing | Teachers trained | Local entitlement |
| | I.E.P | Spec. Ed. Dir | Ongoing | I.E.P. s | Local entitlement |
| | Assistive equipment | Educational Technology Coordinator Special Ed. Staff | Ongoing | In place | Title IID, Local funds, Local entitlement |

| Objective | Related Activities | Person(s) Responsible | Time Frame | Anticipated Outcomes | Budget Consideration |
|--|-----------------------------|--|-------------------|---|---|
| Integration support | Student products | Staff | Ongoing | Curriculum | Targeted funds \$600 / yr hosting |
| | Internet resources | Educational Technology Coordinator Library staff | Ongoing | Websites in place | None |
| | Adult education | Adult Ed. Director | Ongoing | Registration records | Adult Education Budget - fees |
| | Staff Training | Educational Technology Coordinator | Ongoing | Registrations, observation of usage | Grants / Budget \$2500 / year |
| Maintain necessary software and online tools | Maintain district software | Educational Technology Coordinator Technicians | Ongoing | Software inventories Student projects | Local Funds, eRate funds \$26,000 |
| | Consistent student software | Tech. Advisory Team, Cross Site, Educational Technology Coordinator | Ongoing | Software inventories Student projects | Targeted Funds \$3500 / year upgrades |
| | Train staff | Educational Technology Coordinator | Ongoing | Staff proficient and using software in teaching | Local Funds / Grants \$2000 / year for materials |

Policies - <http://www.msad52.org/policies/>

Strategies for Equitable Access.

| Objective | Related Activities | Person(s) Responsible | Time Frame | Anticipated Outcomes | Budget Consideration |
|--|---|---|-------------------|--|--|
| Maintain infrastructure needed to meet mission | High speed access | Network Manager Educational Technology Coordinator. | Ongoing | Min. T1s in place | Erate -\$21,000 / year |
| | Implement WAN | Network Manager Educational Technology Coordinator. | 2012-13 | Wan in place | eRate - state implementation No local cost |
| | Maintain LANs | Network Manager Educational Technology Coordinator. | Ongoing | LAN logs max. uptime | Local Funds \$10000 / year |
| | Expand Wireless | Network Manager Educational Technology Coordinator | 2011-2012 | Managed secure wireless networks across district | Local Funds, \$40,000 over 3 years |
| Technology devices available as needed | PreK-6 lab, library classrooms , carts for whole class use - move toward One-to-One | K-6 Administration Educational Technology Coordinator. Principals | ongoing | Devices in place with yearly expansion | Targeted Funds, Stimulus funds, eRate \$41000 / year |
| | 7-12 (One-to-One) | TMS and LAHS Administration Educational Technology Coordinator | ongoing | Every student / staff has a device | Targeted Funds, \$34,000 / year MLTI |
| | Special Curricular Labs | LAHS Principal | ongoing | Devices in place | Targeted Funds, \$10,000 / year |
| | Administrative and Teacher laptops | Educational Technology Coord. | Ongoing | Devices in place | Local Funds \$49,000 / year |
| | Individual student need | Special Ed. Dir. Principals Educational Technology Coord. | On going | Individual devices where needed | Local Entitlement Targeted Funds dependent on students |

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|---|-------------------------------|--|------------------------|---|--------------------------------------|
| Communication Tools available as needed | Email / Groupware | Educational Technology Coordinator | On going (Google Apps) | Conferencing, Teacher webpages | Targeted Funds \$2200 / year |
| | Emergency Notification | Educational Technology Coordinator. Data Manager | Ongoing | Increasing percentage of subscriptions System implemented | Local Funds and Title Grants \$6150 |
| | Website maintained | Educational Technology Coordinator Data Manager | Ongoing | Increasing hits and posted resources Public Feedback | Local Funds \$12000 / year |
| | Phones and Voice mail | Business Manager | On going | Response time < one school day | Budget \$83000 / year |
| | Blogging, Wikis and Web apps. | Educational Technology Coordinator | Ongoing | Increased posting and hits | eRate and Local funds \$3800 / year |
| Video Tools | Video conferencing | Educational Technology Coordinator. | 2009-2011 | Collaboration documentation Virtual Fieldtrips | RUS grants \$6000 / year Local Funds |

Strategies for Using Technology to Assess, Administer and Develop the District

| Objective | Related Activities | Person(s) Responsible | Time Frame | Anticipated Outcomes | Budget Consideration |
|-----------------------|------------------------------|--|--------------------|--|---|
| Assessment | DOE requirements met | Educational Technology Coordinator Superintendent | Ongoing | All reports complete Use of Power School Use of State Data Warehouse | None |
| | STAR chart implemented | Educational Technology Coordinator | Ongoing | Posted chart | None |
| | Technology Policies in place | Educational Technology Coordinator, School Board | ongoing evaluation | Policies accepted and posted | eRate \$600 / year hosting |
| Data Driven Decisions | Yearly evaluation | Educational Technology Coordinator Tech. Advisory Tm | May – June yearly | End of year report Action Plan | None |
| | PreK-12 student data storage | Assistant Superintendent for Instruction. Data Manager Educational Technology Coordinator. | 2008-2010 | Databases in place Power School NWEA NECAPS Standard Based Reporting | Budget / targeted funds Grants \$17,375 |
| | Training | Educational Technology Coordinator.; Assistant Superintendent for Instruction | ongoing | Staff training documents Staff usage | Local Funds, NCLB, Grants \$8000 year |

Strategies for Digital Citizenship

| Objective | Related Activities | Person(s) Responsible | Time Frame | Anticipated Outcomes | Budget Consideration |
|---------------------|----------------------------------|---|-------------------------|---|------------------------|
| Digital Citizenship | K-6 Curriculum | Educational Technology Coordinator K-6 staff | Spring 2012 - Fall 2012 | Curriculum developed and implemented | Local Funds (staffing) |
| | 7 th grade bootcamp | Middle School staff | 2011-12 | All 7 th graders participated and assessed | Local Funds (staffing) |
| | 8 th grade Curriculum | Middle School staff | 2011-12 and ongoing | All 8 th graders participate in course | Local Funds (staffing) |
| | Distribution of information | Guidance department K-12 | 2011-12 and ongoing | Materials developed, distributed and explained | Local Funds (staffing) |
| | High School Curriculum | Health Teachers, Elective Teacher | 2011-12 | Curriculum in place and implemented | Local Funds (staffing) |

Supporting Resources

MSAD#52 handles most repairs and maintenance in district. This has proven to be a cost effective method with very short turn around times. Most departments are administered through online programs. Several of our supporting resources are hosted offsite to relieve some of the required personnel. The district evaluates the needs and requests the necessary resources in the budgeting process to meet our goals. Printing, scanning, digital cameras, supporting software and personnel are included in this area.

Personnel:

Educational Technology Coordinator
 Network Manager
 Data Manager
 District Technicians
 Computer Teachers grades K-8; by discipline at 9-12

District Programs:

Libraries - Alexandria software system available through school-wide networks.
 Student Information System - Power School Premier with parental portal PreK-12.
 Transportation - Student Information System with statewide implementation planned.
 Parental alerts - Alert Now

Assessment - the Northwest Evaluation Association, NWEA, and New England Common Assessment Program, NECAP.

Alexandria Systems - <http://www.goalexandria.com/>

Power School - <http://www.pearsonschools.com/products/powerschool/>

Alert Now - <http://www.alertnow.com/>

NWEA - <http://www.nwea.org/>

Future Direction

Increase Accessibility

MSAD#52 recognizes the importance of increased accessibility for all students. We continue to work toward technology where and when needed with the expansion of one-to-one initiatives, thin clients, projectors, document cameras and web-based software solutions. Working directly with the Special Education Department and individual I.E.Ps, we strive to find the best solution for each student. Staff skills in the use of these resources are addressed through the Professional Development Program.

An Assistive Technology team was launched in 2010 to manage and be resources for the technology required for individual students.

Teaching and Learning

Expansion of technology into all areas is ongoing. New strategies for integration are researched and reviewed by the Technology Advisory Team, the Information Literacy Team, the Cross Site Technicians, the Educational Technology Coordinator, the Assistant Superintendent for Instruction, the Data Manager, and individual teachers and teams. Support for training and implementation of validated methods is added to this plan yearly.

To maintain equity and access, innovating methods of delivering knowledge are continually being researched and updated. Strategies being used include:

- Online learning through Moodle
- Web 2.0 tools - wikis, blogs, etc
- Interactive whiteboards
- Virtual High School programs
- Local technical colleges and university courses
- Project Based Learning
- Noodle Tools
- Google Apps. for collaboration and student email
- Learn360 and United Streaming for delivery of content through video
- Teacher webpages and blogs for communication and feedback
- Video Conferencing

Professional Development

A Professional Development program, using project based training to promote methods of integration, is developed each year. New methods of integration are researched and reviewed by the Technology Advisory Team, the Cross Site Technicians, the Information Literacy Team, the Educational Technology Coordinator, the Assistant Superintendent for Instruction, the Data Manager, and individual teachers and teams. Extensive one on one training is completed between the site technicians, staff and Technology Coordinator. Staff make use of teacher resources via our web pages and online courses.

The district supports staff attendance at the Association of Technology Educators in Maine annual Conference and state sponsored Learning Initiative sessions. Coursework is supported for staff working for recertification.

Assess, Administer and Develop the District

District direction and decisions are based on data. Progress is constantly assessed by administrators, parents and staff. Each student and staff member agrees to an Acceptable Use Policies and understands the purpose of the district technology. The staff development program addresses the expansion of curricula and strategies integrating technology to promote all students learning. The Technology Advisory Team and Cross Site Committees evaluate and up-date this plan yearly. This plan will be reviewed by the Maine Department of Education every 3 years.

Accountability for technology should be measured through student learning. Although this is a difficult measure to validate, teachers and administrators will recognize increased technology successes through:

- students using technology ubiquitously and not as "specials" during the school day
- teachers attending trainings and becoming comfortable with new paradigms of teaching using technology
- extension of "classes" through online courses and websites
- student understanding of Digital Literacy
- teachers and students developing Personal Learning Networks
- more involvement of outside experts and video conferencing
- collaboration across grade levels
- technology becoming a common section of curriculum maps

Approved:

11/2011 - District Technology Committee

1/2012 - District Curriculum and Policy Committee

2/2012 - MSAD52 School Board