

Mason-Lake ISD District Technology Plan

District Profile:

Location: Ludington, Michigan (Mason County)
Number of Students: 6,884
Demographic Data: Population: 37,651
Median Household Income (1998): \$18,611
Participation in Federal School Lunch Program: 49%
Intermediate School District Name: Mason-Lake ISD

School Buildings: Mason-Lake ISD District Code: 53000

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Technology Plan

Start Date: 7/1/2006

Date of Next

State Review: 6/30/2009

Technology Plan URL: <http://www.mlisd.k12.mi.us/techplan.pdf>

Mission Statement:

The Mason-Lake ISD shall align resources, provide leadership, and deliver efficient, high quality services to help area schools help students achieve.

Introduction:

Mason-Lake ISD is an innovative, student centered, educational service organization dedicated to providing educational leadership to teachers, administrators and educational support personnel. Our primary goal is to "help area schools help students."

The Mason-Lake ISD is located in Mason County, 5 miles east of Ludington, Michigan on US Highway 10. The participation in the Federal School Lunch Program as of 2003 is 49%. The median household income (1998) is \$18,611. The student population is 6884. The Mason-Lake ISD has 31 teachers who provide services to students in over 10 locations.

Vision:

We believe that technology, coupled with an ongoing professional development program will enable district personnel to complete their assigned tasks and roles more efficiently.

By doing so, as a district we will operate more effectively, enhance our classroom instruction, demonstrate leadership, and by more effectively utilizing our resources, provide a wider range of services as we assist our local school districts in meeting their goals.

This assistance shall be delivered cooperatively, recognizing the needs of individuals and respecting the dignity of all.

Goals and Objectives:

These research based goals, objectives and strategies are aligned with the State standards for using telecommunications and technology to improve teaching and learning.

1. Provide an adequate and upgradeable network infrastructure.
2. Provide E-mail accounts for all staff members.
3. Install, maintain and upgrade a digital Internet circuit.
4. Provide students and staff of constituent districts with technical training through Tech-Prep, Goals 2000 and other future programs.
5. Provide ongoing professional development training to ensure that all MLISD employees have the technical skills necessary to effectively utilize appropriate technology.
6. Connect and maintain workstations and PDAs to the existing Local Area Network (LAN) and the Internet.
7. Provide staff with modern hardware and software.
8. Use technology to facilitate access to other agencies, data and research.
9. Maintain a website for the posting and distribution of relevant MLISD information and documents.
10. Communicate with and seek input from local school technology committees.
11. Use local school technology committee input to continually update the district technology plan.
12. Provide technology training.

13. Collaborate with constituent districts to develop access to audio-visual communications (e.g., cable, satellite, distance learning).
14. Promote the sharing and use of technology and information among constituent districts.
15. Promote using technology as a tool to enhance the curriculum in all subject areas.
16. Promote partnerships within communities that allow student access to the latest technology.

These goals align with the state recommendations: 1,2,3,4,5,6,8,9,10,11,12,13,14,15,16,19,21.

Curriculum Integration:

Integration Timeline:

Technology integration is a dynamic process which enhances student learning daily. Students and staff will use district-supplied hardware and software which will be implemented in each year of the technology plan as part of an ongoing technology integration strategy.

Basic technology skills are necessary to fully access, manage, organize, apply, communicate and evaluate information to solve problems in and beyond the classroom. The seven skills listed below will be developed and augmented as students advance through each level of schooling. Students will use district supplied hardware and software. It is part of Mason-Lake ISD's role to help our students and the students we serve through the local districts in the following areas:

Personal Computer Concepts: Students will have a working knowledge of the basic parts of a computer and the relationship of programs and data to the operation, ethical use, and proper care of technology as an appropriate tool.

Keyboarding: Students will have the ability to communicate with a computer via keyboard and video display and use other input devices such as a mouse, joystick, trackball, scratchpad or other pen-based screen. They will have a basic understanding as to how data is entered, how programs are initiated, and how to respond to screen displays. Computer aides should be trained with appropriate and standardized software to be utilized throughout the District. The initial concepts of keyboarding will be introduced at the Kindergarten and Preschool levels.

Word Processing: As an extension of word processing, students will be able to create and edit presentations involving video and audio media.

Spreadsheet: Students will be introduced to the basic functions of an electronic spreadsheet and its practical applications (using District-supplied, standardized software and hardware).

Personal Database: Students will be able to manipulate electronic databases (using District-supplied, standardized software and hardware).

Presentation Graphics/Multimedia/Desktop Publishing: As an extension of word processing,

students will be able to use District-supplied, standardized software and hardware systems to create and edit presentations involving video and audio media.

Telecommunications to Information Services/Databases: Students will be able to access selected resources in the school media center and through external electronic databases and research topics on national networks, such as Compu-Serve, America On-Line and the Internet, etc. (Using District-supplied, standardized software and hardware).

At the elementary level, these seven basic skills will be introduced and integrated into the curriculum in the appropriate subject areas and at the appropriate grade levels.

At the middle school and high school levels, the seven basic skills identified above will be reinforced and augmented to address the higher level of sophistication of middle school and high school applications.

In addition to basic technology skills, specialized applications of technology will be introduced in the following general subject areas and technology specific courses.

Language Arts: writing labs with appropriate tools for writing analysis.

Mathematics: graphing calculators; software for mathematical analysis and application.

Biological and Physical Sciences: data gathering equipment (sensors, digital scales, video microscopes) interfaced to workstations with spreadsheet, database, statistical analysis and graphic presentation software for synthesis and reporting; interactive laserdisc video of lab simulations of potentially hazardous Chemistry experiments; on-line access to scientists via the Internet and distance education; equipment for investigations into genetics and physiology, etc.

Social Sciences: CD-ROM applications; on-line access to civic databases; software for historical analysis.

Fine Arts: hardware and software for music composition; labs for graphic design; hardware and software for photography.

Physical Development and Health: nutrition software; monitoring equipment; interactive laserdisc.

Foreign Language: interactive language lab; interactive laserdisc video.

Business: computer labs for special business applications.

Home Economics: automated kitchen facilities; interactive reference and demonstrations.

Applied Technology: hardware and software for specific applications; technology labs.

Special Education: equipment for special needs students.

Distance Learning: course offerings will be expanded through distance learning.

Parents will be involved with curriculum and student achievement through:

- on-line access to student grades
- on-line access to teacher lesson plans
- on-line access to student attendance
- on-line access to media resources
- newsletter and email updates of technology, curriculum and school improvement committee meetings

Needs Assessment and Technology Infrastructure Plan:

30 computers (40 projected within two years)
55 Category 5 data drops
5 dedicated phone lines
2 servers (replacement after five years)
3 hubs (upgrade to Gigabit switches after 3 years)
Upgrade wireless access points by 2007
1 router

Network:

The network infrastructure plan calls for an upgrade to a minimum 100Mbps by 2006. At that time all network cards in servers and workstations will operate at a minimum of 100Mbps. Shared 10Mbps hubs will be replaced with 10/100/1000Mbps auto-sensing switches. Wireless access points will be installed in our main building. These access points will be 802.11g compliant or higher.

Operating System:

We will also evaluate and upgrade, if necessary, our network operating software (NOS) and workstation operating software (OS). If our application software demands a NOS or OS upgrade, the upgrade will be implemented as soon as time permits.

Application Software:

Our application software is scheduled to be evaluated every year by our technology committee and teachers in our local districts. Recommendations will be screened to determine if the

software upgrades or additions will have a positive effect on student achievement as well as the district's improvement plan. We will use feedback from software training sessions and several on-line communities devoted to educational software evaluation.

Content and Virus Filtering:

Internet filtering and ant-virus software will also be evaluated every year to ensure our district has the most effective software solution, and is compliant with the Children's Internet Protection Act (CIPA). Additionally, we rely on feedback from our local districts and from MiCTA's annual software evaluations.

Technical Support:

Designated individuals and groups will address technical support issues. Our Internet access is supplied and supported by Charter Communications, Inc. ISD staff members and two outside consultants will address daily support issues. ISD administration and staff, consultants, students, parents and community members will supply technology planning, implementation and evaluation.

Hardware:

Computer workstations will be replaced after a three to five year period. Servers will also be replaced after a five year period, with an annual upgrade allowance for each server to be determined during budget evaluations.

Collaborations:

The technology solutions and their benefits will become an integral part of Mason County Central's Adult Community Education Program, which currently conducts adult literacy classes at our facilities and throughout the community. The timeline for continuing this collaboration will begin at the start of each school year and continue through the duration of this technology plan.

The Technical Preparation Partnership, in collaboration with West Shore Community College, brings into focus the integral relationship between education and employment. Tech Prep is a reflection of our continuing commitment to educational excellence.

Budget and Timetable – Technology Plan

	2006-2007	2007-2008	2008-2009
Supplies	\$3,300	\$3,600	\$3,900
Maintenance	\$4,500	\$4,950	\$5,500
Dues/Fees	\$1,000	\$1,100	\$1,300
Software	\$3,300	\$3,600	\$3,900
Technical Support/PD	\$65,000	\$68,250	\$71,650
Hardware	\$3,400	\$3,850	\$4,250
Internet Access	\$11,000	\$11,000	\$11,000
Equipment	\$2,000	\$2,200	\$2,400
TOTAL	\$93,500	\$98,550	\$103,900

Solutions and Timelines:

Hardware and network solutions include upgrading our network to 100Mbps or better by 2006 and include installation and upgrade of video distribution components and the migration from VHS to DVD. Telecommunication solutions include upgrading and maintaining digital circuits for Internet access and distance learning, and the Internet access service provided by Charter Communications. Presentation solutions include installation and maintenance of projection devices for staff.

Salaries, technology support and maintenance solutions include technology support staff and outside consultant fees. Professional development solutions include instructor salaries and participant stipends.

Licenses and software includes ongoing upgrades of NOS software, utility software, anti-virus software and content filtering software. Additionally, software licenses will be purchased for new computers.

Miscellaneous includes supply costs including toner and ink cartridges, carrying cases and storage media.

Distance Education :

A needs assessment will be conducted to determine the academic needs of the students in the prospect of bringing in distance education in the areas of interactive video, on-line course and other distance learning opportunities. Mason-Lake ISD currently has the infrastructure and hardware necessary to participate in asynchronous on-line courses and is looking at adding additional hardware to facilitate a synchronous distance learning classroom.

Professional Development:

It is the intent of Mason-Lake ISD to provide its instructional staff with appropriate facilities, tools, training and supplies to maximize effectiveness in the classroom, raise student achievement and comply with state and national standards for teacher competencies. The ISD will facilitate the training that will begin at the start of each school year and continue for the duration of this technology plan. The creation of a designated training site is recommended. For all teachers to use technology owned and operated by the district, the district will provide appropriate access to technology and training to perform the following functions:

Word Processing: electronic document and text management for reports, letters, lesson plans, etc.

Spreadsheet: electronic worksheets for charts, graphs and tabular data management.

Personal Database: computer database management, including a procedural language for creating editing input screens and ad hoc reporting.

Statistical Analysis and Testing: applications which compute statistics on data collected and entered by the user.

Presentation Graphics/Design/Desktop Publishing: applications which enable the creation and organization of media from several sources, such as graphic images, digital/analog movies and charts, for presentation in the classroom or to other large group audiences.

Telecommunications to Information Services/Databases: applications which permit the access, through telephone on-line services, to various external information database services.

Electronic Mail: electronic communication between one or more computer workstations on a network.

Electronic Gradebook: electronic collection of teacher-specified information such as attendance, grades, homework assignments, etc. This data can then be transferred to other District systems for entry into official District databases.

Classroom Management: tools which enable teachers to plan and monitor classroom activities and resource utilization.

Integrated Lesson Development: applications which help teachers develop individual classroom plans to implement District curriculum. Its resources include computers, software and peripherals; videotape editing; and integration of DVD, CD-ROM, videotape and scanned images with an extensive instructional television network.

Voice Mail: an initial recording to direct callers to leave a message for teachers or staff members not currently available. Homework assignments could be made available on an individual class basis. A school information line would also be available. This requires a phone in every classroom and support area.

Automated Remote Media Access: allows for a teacher to remotely control and broadcast media, such as VHS tapes, DVDs, local computer monitor and a building broadcast, over an in-classroom, large display monitor. This would also include Cable TV and local video access.

Interfaces to Administrative Systems: applications which permit teachers to access relevant District informational databases regarding their particular students (address, phone number, parent name, grades, attendance, test scores, class schedule, transcript, etc.) and classroom curriculum needs (State Goals, District Learner Expectations, curricular outcomes, test items, lesson plans, approved salary advancement courses, etc.). These applications should permit teachers to view relevant information and download or print information such as class lists, parent phone numbers, individual student attendance, outcomes and lesson plans.

Timeline:

2006-2007

- Needs assessment, identification, purchase of software and licenses
- District wide assessment of hardware, software, technology infrastructure and professional development
- Needs assessment of telecommunications providers
- Review and update technology staffing and professional development needs for 2005
- Review and update technology plan

2007-2008

- Purchase and implementation of hardware, software, technology infrastructure and professional development as per needs assessment
- Review and update technology plan
- Review and update technology staffing and professional development needs for 2006

2008-2009

- Purchase and implementation of hardware, software, technology infrastructure and professional development as per needs assessment
- Review and update technology plan
- Review and update technology staffing and professional development needs for 2007

Supporting Resources:

We currently utilize contracted technical support, on-line resources, technology periodicals, district policies, district and building school improvement plans, REMC training services and outside consultants.

The ISD will conduct quarterly meetings with the local districts and their technology coordinators. These meetings will focus on strategies for technology implementation and support. The coordinators will share ideas, Websites, conduct software and hardware evaluations and brainstorm ideas.

Mason-Lake ISD will fund this technology plan through a variety of resources including, but not limited to:

- Designated annual technology budget
- Local, state and federal grants (including Title, USF, and NCLB)
- Foundation/corporate grants
- Corporate donations
- Volunteer workers
- Fundraisers

Communications/Public Relations/Increased Access:

The District will communicate plans, progress and availability of technology to the community through currently published district newsletters, school newsletters, Websites and local news media.

Through after school technology programs and assistive technology awareness programs, the Mason-Lake ISD will inform the public of the services and technologies that are available to the public and encourage their participation.

Evaluation and Monitoring:

Mason-Lake ISD realizes that technology is constantly changing. In order to keep up with these changes, we must continue to assess our goals and objectives. Therefore, the school district will develop and maintain an on-going evaluation plan to ensure that all current objectives are achieved, and that any future goals and objectives will be incorporated into the Technology Plan and evaluated.

The previously mentioned techniques and strategies to integrate technology into the curriculum will be evaluated for effectiveness on a yearly basis. The evaluation plan includes several methods for evaluation and those responsible for evaluation:

- Surveys to teachers and staff
- Pre-testing and Post testing during staff development sessions
- Tech support logs maintained by the IT staff and consultants
- A software licensing database
- Feedback from technology committee meetings
- Student achievement indicators such as retention and MEAP scores

Technology goals or expectations not met and identified through the collection and evaluation of data will be brought to the attention of the school improvement team and building principal. These shortcomings will be collectively analyzed and re-written into an updated school improvement plan and addressed with individual staff members as needed. This will be done on an annual or as needed basis.

The Mason-Lake ISD has in place an Acceptable Use of Technology Policy (AUP) for all students and staff. With access to computers and people all over the world also comes the availability of material that may not be considered of educational value in the context of a public school. The District has installed on its student computers a content filtering system in an attempt to block or filter Internet access to visual depictions that are obscene, pornographic, or harmful to minors. Students violating this protection device will be subject disciplinary action outlined in the student handbook. This filtering system complies with the Children's Internet Protection Act (CIPA).

COMPUTER NETWORK/INTERNET ACCEPTABLE USE POLICY

The Mason-Lake Intermediate School District has made electronic technology available to its students at the Mason-Lake Intermediate School District, Tech Prep Partnership Technical Skills Center, and Mason-Lake Oceana Math/Science Center (MLISD, Tech Prep, MLOMSC). Under this policy, the MLISD, Tech Prep, and MLOMSC Computer Network allow students to access computer programs, printers, and the Internet. The use of this technology by students is a privilege and such use must fall within the acceptable use as expressed in the rules of this policy.

Mason-Lake ISD has the right to monitor the use of the electronic technology in its buildings. A student's use may be revoked if, at any time, appropriate use is violated. Failure to abide by these policies will be dealt with as detailed within the Disciplinary Action Guidelines in the MLISD, Tech Prep, MLOMSC Student Handbooks.

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Network Access

A Network Login ID and a Network Password are required of anyone who accesses the Network. Before being issued a Login ID and Password, the student must read the Computer Network/Internet Policy and Acceptable Network/Internet Use Guidelines, fill out the Agreement Form, and return the self-addressed, postage-paid card to MLISD, Tech Prep, or MLOMSC. A parent or guardian must cosign the Agreement Form. The student will then be assigned a System Account and will be the sole, authorized owner of said account.

Internet Use

The use of the Internet is intended for specific projects and to access information needed for class purposes. Random surfing of the Internet is not an appropriate use of the Internet and will not be allowed.

Networking Monitoring

The Computer Network is monitored to make sure it is being used in accordance with our Acceptable Use Guidelines.

ACCEPTABLE NETWORK/INTERNET USE GUIDELINES

1. Any use of the system must be in conformity to state and federal laws, network provider, policies, licenses, and the Mason-Lake Intermediate School District policy.
2. Use of the system for commercial solicitation is prohibited.
3. Access to chat rooms and e-mail on the Internet is prohibited.

4. No use of the system shall disrupt the operation of the system by others. System components, including hardware and software, shall not be destroyed, modified, or abused in any way.
5. Malicious use of the system to develop programs that harass other users or gain unauthorized access to any computer or computing system (hacking), and/or damage the components of a computer or computing system, is prohibited.
6. The user is responsible for the appropriateness and content of materials he/she stores/downloads, transmits, or publishes on the system. Hate mail, harassment, discriminatory remarks, pornographic materials, use of obscene or defamatory language, or antisocial behaviors are expressly prohibited.
7. Use of the system to access, store, distribute, or print obscene or pornographic material is prohibited.
8. The unauthorized installation, use, storage or distribution of copyrighted software/materials on district computers is prohibited.
9. System accounts are to be used only by the authorized owner/user of the account for the authorized purpose. Users may not share their login names or passwords with another person or leave MLISD, Tech Prep, MLOMSC, without logging out of the Network. The account owner is ultimately responsible for all activity under his or her account.
10. A signed Computer Network/Internet Agreement form must be on file at MLISD, Tech Prep, MLOMSC prior to student use of the district computer network.

Mason-Lake Intermediate School District Computer Network/Internet Policy

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Mason-Lake ISD has the right to monitor the use of the electronic technology in its buildings. A student's use may be revoked at any time appropriate use is violated. Failure to abide by these policies will be dealt with as detailed within the Disciplinary Action Guidelines in the MLISD, Tech Prep, MLOMSC Student Handbooks.

Network Access

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Computer Network/Internet Agreement

I have read and understand the Mason-Lake ISD Network/Internet Policy and Guidelines. I agree to abide by the standards set forth. I understand that my privilege to use the MLISD, Tech Prep, MLOMSC Network/Internet may be revoked as a result of my failure to abide by these guidelines.

Student Signature

Parent/Guardian Signature

Date _____

Student Information (please print)

_____ _____
Last Name First Name

_____ _____
Program Name Instructor

