

Technology Plan Mancelona Public Schools

112 St. John St.
Mancelona, Michigan 49659
231.587.9764
District Code: 05070

Plan Start Date: July 1, 2008
Plan End Date: June 30, 2011
Contact Person:

Shelly Meeder
112 St. John St.
Mancelona, Michigan 49659
231.587.9764 voice
231.587.9500 FAX
smeeder@mancelonaschools.org

Technology Director:
Fred Trimble
112 St. John St.
Mancelona, MI 49659
231.331.4017
Fred.Trimble@TrimbleConsulting.net

County: Antrim and Kalkaska
ISD: TBA ISD

URL: www.mancelonaschools.org/techplan

1. Table of Contents

1. TABLE OF CONTENTS	1
2. INTRODUCTION.....	1
2.1. District Mission Statement.....	1
2.2. Demographics	1
3. VISION AND GOALS	1
3.1. Vision Statement	1
3.2. Goals	1
3.3. Integration with Other Plans	2
4. CURRICULUM INTEGRATION.....	2
4.1. Instructional Technology Standards.....	3
4.2. Technology Use	4
4.3. Curriculum and Teaching Strategies.....	4
5. STUDENT ACHIEVEMENT	4
5.1. Strategies	4
5.2. Timeline.....	4
6. TECHNOLOGY DELIVERY	4
6.1. Distance Learning Technologies.....	4
6.1.1. Currently Being Used	4
6.1.2. To Be Explored.....	5
7. PARENT AND COMMUNITY RELATIONS	5
7.1. Publication of Technology Plan.....	5
7.2. Parent and Community Communications.....	5
7.3. Technology Committee Membership	5
8. COLLABORATION.....	5
8.1. Computer Labs.....	6
8.2. Web Resources.....	6
9. PROFESSIONAL DEVELOPMENT	6
9.1. Professional Development Plan	6
9.1.1. Instructional Staff.....	6
9.1.2. Administrative Staff.....	7
9.1.3. Technical Staff.....	7
9.2. Professional Development Focus	7
9.3. Management	8
9.4. Professional Development Timeline.....	8
9.5. Resources and Standards.....	8
9.5.1. Resources.....	8
9.6. Evaluation.....	8
10. SUPPORTING RESOURCES	9
10.1. Internal Resources	9
10.2. External Resources	9
11. TECHNICAL INFRASTRUCTURE	9
11.1. Current Status	9
11.1.1. Computer Workstations	9
11.1.2. Cabling Infrastructure	9
11.1.3. Network Hardware	10
11.1.4. Network Operating System and Servers	10
11.1.5. Connectivity and Internet.....	10
11.1.6. Software Applications	10
11.1.7. Telephone System.....	10
11.2. Current and Future Needs.....	10
11.3. Technical Standards.....	11
11.4. Technical Support	11
12. ACCESS TO TECHNOLOGY.....	11

12.1. Access to Resources.....	11
13. FUNDING AND BUDGET	11
13.1. Variables.....	11
13.2. Baseline Amounts: 2007-2008	12
13.3. Projections for 2008-2009	12
13.4. Projections for 2009-2010	12
13.5. Projections for 2010-2011	13
14. COORDINATION OF RESOURCES	13
14.1. Funding Option Possibilities	13
15. MONITORING AND EVALUATION	13
15.1. Evaluation Process.....	13
15.2. Indicators of Success	13
15.3. Monitoring and Evaluation Responsibility	13
16. ACCEPTABLE USE POLICY.....	14
17. APPENDIX A LESSON SAMPLES.....	15
18. APPENDIX B ACCEPTABLE USE POLICY.....	18
19. APPENDIX C: USF.....	25

2. INTRODUCTION

2.1. District Mission Statement

We promise to make the best use of our resources to develop the academic and social potential of both student and community." In all buildings, we strive to support the mission statement via creative teaching techniques, continued curriculum review, school improvement teams and a community/school approach.

2.2. Demographics

- Number of students: 1123
- Number of teachers: 67
- Number of administrators: 7
- Number of non-certified staff: 54
- Buildings:
 - High School 9-12
 - Middle School 5-8
 - Elementary School PreK-4
- Growth status: Slight Decline
- Total General Fund Budget: \$9,368,245.00

3. VISION AND GOALS

3.1. Vision Statement

Mancelona Public Schools, recognizing that technology literacy is essential for all students expecting to live, work, and strive in this global society, will commit to making technology education the very center of the educational process. Mancelona Public Schools will encourage personal growth in technology, information gathering skills and communication skills for all of its students.

3.2. Goals

- Provide professional development to all district staff to allow the establishment of a K-12 integrated technology curriculum.
- Provide a pathway for the maintenance and future acquisition of equipment to create an infrastructure that will support the vision of the technology plan and the mission of the school district.
- To ensure every student will be competent in the use of varied technologies to promote learning towards analytical thinking, problem-solving and project based learning.
- Improve effectiveness and efficiency of the administrative process by providing up-to-date access to information.
- Provide a safe computing environment.
- Inspire lifelong learning.

3.3. Integration with Other Plans

This Tech Plan will align with existing School Improvement Plans and district Curriculum. The following plans will be completed and aligned to this plan:

- Professional Development Plan
- Technical support Plan
- School Improvement Plan
- Curriculum Planning Cycle

4. CURRICULUM INTEGRATION

Mancelona Schools will integrate existing and acquired technologies into the curriculum in support of and in accordance with the District Mission Statement.

All Students will:

- Use value based standards to incorporate technology
- Communicate information by utilizing a variety of technological means
- Become a community of life-long learners
- Look at how technology affects society and predict the outcomes
- Utilize higher-order thinking skills
- Apply ethical and legal standards in planning, using, and evaluating technology
- Use technology to input, retrieve, organize, manipulate, evaluate, and communicate information
- Use and transfer technological knowledge and skills for life roles
- Evaluate the societal and environmental impacts of technology and forecast alternative uses
- Apply appropriate technologies to critical thinking, creative expression, and decision making skills

To accomplish these goals, we will:

- Establish guidelines for curriculum integration.
- Identify competencies and assign to a specific curriculum area.
- Provide ongoing curriculum and technical support.
- Establish technology competencies for students.
- Establish competencies and appropriate training for staff.

Examples of how technology will be integrating into the curriculum will include the following:

- Use of software products to improve reading and higher order thinking skills.
- Use of the web to expand current reference abilities of students to broaden class specific learning.

Technology objectives will be supported by the following process:

- a. The district committee on curriculum integration will establish a process for the integration of technology in alignment with the Michigan Department of Education framework.
- b. Provide initial training for certified teaching staff, and maintain ongoing training for curriculum support. This will include assistance in the development of lesson plans which are technology rich.
- c. Knowing that technology is an ever changing environment the district will set benchmarks for the following:
 - Elementary School Students will become proficient in:
 - Keyboarding
 - Word Processing
 - Online Research
 - Multi Media
 - Object learning
 - Basic study skills
 - Middle School Students will become proficient in:
 - Spreadsheet
 - Electronic Communications
 - Database
 - Intro to world wide web as a search tool
 - High School Students will become proficient in:
 - Word Processing
 - Spreadsheets
 - Electronic Communications
 - Increased knowledge in multi media and electronic development
 - Online research
 - College computer prep
 - In addition, opportunities will be provided for the following:
 - Computerized accounting
 - Web Site development
 - Computer measuring tools
 - Basic networking
 - Projection microscope
 - Interactive TV and online classes
 - Advance TV production
 - Computer Aided Drafting

Based on an annual assessment, goals will be reviewed and revised as needed.

4.1. Instructional Technology Standards

Within the context of the curriculum process, steady progress will be expected toward the adoption and meeting of the following standards:

- Michigan Benchmarks and Standards (MiCLIMB)
- NETS standards for students (www.iste.org)

- NETS standards for teachers
- TSSA standards for administrators

4.2. Technology Use

Technology tools will be used across all levels in support of the curriculum.

Examples:

- Language Arts: writing and peer review
- Science: probeware and data analysis
- Math: graphing calculators, graphic manipulation of geometric forms
- Art: graphics, image editing
- Social Science: Internet exploration of other cultures (keypals)
- Music: music editing, composing

4.3. Curriculum and Teaching Strategies

The Technology Committee will identify current research and best practice models for the curriculum committees. Resources used for this will include:

- MiCLIMB
- Michigan Curriculum Frameworks
- Best Practices CD series
- Instructional Technology Across the Curriculum (ITAC) activities
- Other resources as they are identified.

5. STUDENT ACHIEVEMENT

Instructional strategies involving the use of technology will be firmly rooted in current research, directly aligned to curriculum, and aimed specifically at improving student achievement.

5.1. Strategies

This plan will be implemented through the existing curriculum process using the following strategies:

- Each curriculum committee will have, as a regular member, at least one representative from the Technology Committee.
- Annual review of subject area curriculum will include addition of technology rich lessons and modification of existing units to incorporate technical tools.
- Examples of technology rich lesson plans are included in Appendix A.

5.2. Timeline

Yearly curriculum review of specific subject areas will include the addition of technology rich lessons and specific goals related to the Instructional Technology Standards. This cycle will be repeated throughout the life of this plan.

6. TECHNOLOGY DELIVERY

6.1. Distance Learning Technologies

6.1.1. Currently Being Used

- Summer School: Algebra and World History online courses

- MVHS
- E-Learning (MOODLE)

6.1.2. To Be Explored

The following delivery technologies will be explored and adopted where there is direct curricular alignment and sufficient budget resources.

- Streaming Video (through REMC)
- On-line coursework (e.g. MVHS, MiVU,
- ITV options from ISD and REMC
- Internet curriculum resources such as:
 - Intel Teach for the Future
 - Teach for Tomorrow
 - Ameritech Teaching Academy
 - Other Internet based instructional opportunities

7. PARENT AND COMMUNITY RELATIONS

The main connection between this plan and parent and community relations will be the district presence on the Internet.

7.1. Publication of Technology Plan

This plan will be published on the district web site in its final draft.

7.2. Parent and Community Communications

- Parent and community input will be sought during the review and assessment phases of this plan through email and on-line surveys, and input forms on the district web site.
- The schedule for School Board meetings will be posted on the district web site.
- Minutes of School Board meetings will be posted on the district web site.

7.3. Technology Committee Membership

The district Technology Committee is charged with the responsibility for the authoring, review, and assessment of this plan. Membership in the committee will include:

- Teachers: At least one representative from each level (lower elementary, upper elementary, middle school, high school) and from each major curriculum area.
- Administrators: Both building and central administration will be represented.
- Students: A student representative will be appointed by the student government or High School principal.
- Parent: At least one parent representative will be appointed.
- Community: At least one local community or business representative will be chosen.

8. COLLABORATION

District owned technology resources are recognized as public resources. Whenever practical, district owned technology resources will be made available for public educational use.

8.1. Computer Labs

- Existing district computer labs will be made available for community education, adult education, and training opportunities whenever practical.
- Unfilled seats in professional development classes offered in district computer labs will be made available to interested parents and community members.
- Guidelines will be developed to allow progress toward these goals while maintaining the security and integrity of the district's technical systems.

8.2. Web Resources

Space for public electronic "bulletin boards" for posting community events will be made available on the district web site at the request of local municipalities and organizations.

9. PROFESSIONAL DEVELOPMENT

Professional Development will facilitate the integration of technology into daily lesson plans, and to train district personnel to be effective in the use of technology support systems. Currently a wide variety of skill levels relating to applications exist in the area of technology within the district. An, organized, flexible, and sustainable professional development program will enable staff to appropriately use technology to support instruction. Training time to implement the training needs to be provided to allow staff to develop curricular activities integrating technology into their daily lesson plans. In addition, training must be provided to staff involved in data management and administrative functions using technology.

9.1. Professional Development Plan

- Professional development must be on-going and sustainable.
- Professional development will emphasize integration rather than skill development.
- Opportunities for professional development will employ a variety of providers and be offered at times and locations convenient to staff.
- The Tech Coordinator will be designated to coordinate this program and develop a timeline, an evaluation process, and organize training.
- The model of training a core cadre of teachers to be the trainers of all staff will be continued.
- State and national standards will guide the objectives for the professional development program.
- The objectives for each training opportunity will be known to the participants prior to each training session.
- The appropriate training of administrative staff will be an integral part of the professional development program.

9.1.1. Instructional Staff

All professional development will be based on a demonstrable curricular need.

- Skills Based PD: Skills based training will be offered only in support of other PD and not as the focus of any classes.
- Standards Based PD: Professional development classes that focus on technically rich curricular lessons will be the preferred mode of training. Examples are:
 - Teach for Tomorrow
 - Ameritech Technology Academy
 - Intel Teach for the Future
 - Other MDE sponsored training opportunities
- Certifications/Standards: There is a recognized long-term goal of certification of all staff in meeting standards and benchmarks for the integration of technology, such as:
 - Completion of Teach for Tomorrow modules
 - COATT certification
 - NETS for teachers
 - Intel Master Teacher

9.1.2. Administrative Staff

A combination of application specific and standards based professional development opportunities will be sought for both building and central administration staff. Examples include:

- MSBO sponsored trainings and certification paths
- TSSA based training opportunities
- Association sponsored trainings and conferences (e.g. MSBO, MASA, MASSP, MEMSPA)

9.1.3. Technical Staff

An on-going need is recognized to keep the technical support personnel up to date on ever changing technical systems.

- Industry and manufacturer certifications are encouraged for systems and software that the district currently uses, or intends to migrate toward.
- Funding for training opportunities and conferences will be considered as part of the overall technology budget.

9.2. Professional Development Focus

The overall goal of professional development is to change and support the way teachers teach and students learn. Research suggests that skills-based training (e.g. Intermediate Word, Beginning PowerPoint, etc.) has little impact on the use of technology in teaching and learning.

True integration of technology will be achieved only with curriculum and standards based professional development that helps teachers and administrators in the development of a technology rich curriculum. The expected outcomes for this type of professional development are technology rich classroom lessons and resources.

9.3. Management

A key management element for the success of a professional development program in technology is a district technology integration curriculum team. The district will create this team and they will be able to accomplish the following:

- Provide teachers with help in their classrooms during the school day.
- Have a strong knowledge of the curriculum.
- Identify in-service and professional development programs necessary for district staff.
- Design and implement ongoing training for all staff.
- Coordinate technology training for staff new to the district.
- Insure technology budget decisions support district curriculum.
- Support individual schools in assisting teaching staff and administrators to integrate technology into the curriculum.
- Work with the Technology Coordinator to evaluate new technologies.
- Analyze a yearly district evaluation to adjust the professional development plan accordingly.

9.4. Professional Development Timeline

A yearly PD calendar will be developed and maintained that lists all PD opportunities available to district staff. Both internal and external opportunities will be listed.

9.5. Resources and Standards

Both internal and external resources will be encouraged for professional development including:

9.5.1. Resources

- Internal district staff, both instructional and technical
- ISD sponsored professional development opportunities
- MiVU/NETg on-line courses
- MDE sponsored professional development opportunities
- Professional association sponsored opportunities
- Instructional: MACUL, MIEM, MAME, etc.
- Administrative: MSBO, MASA, MASSP
- Technical: WMU Tech Coordinators Conference, MAEDS

9.6. Evaluation

The evaluation of the effectiveness of the professional development program for technology will be accomplished in the following manner:

- A yearly technology assessment of staff will be completed. It will include the assessment of the district competencies in technology
- The team will work to gather anecdotal evidence and will show successful implementations
- Professional development will be evaluated by judging its impact on student achievement and the integration of the technology into the curriculum

- All information will be reported to the school board on progress for technology and support applications to keep up within the year

10. SUPPORTING RESOURCES

True integration of technology involves more than curriculum. Technology must be viewed as an integral part of most functions of the district from business through instruction. The following resources will be pursued and maintained within budget limitations.

10.1. Internal Resources

- District Policy and Guidelines as they relate to technology will be reviewed annually to maintain consistency with this Plan as well as state and federal requirements.
- Documentation of technical systems will be maintained on an on-going basis and will be reviewed as part of the annual review of this Plan.
- A web presence will be maintained to support district instructional, administrative, informational and marketing priorities.
- Parental web access will be provided for viewing student records and grades.
- Software licensing will be strictly documented and maintained.

10.2. External Resources

- REMC materials: video lending, video streaming, and other materials and resources
- ISD and/or RESA resources for professional development, tech support, and other district needs
- Online subscription services for technology rich instructional materials
- Outsourcing of less-than-full time needs for professional development, tech support, and consulting services.

11. TECHNICAL INFRASTRUCTURE

The technical infrastructure from desktop through to the Internet will be reviewed annually. A priority list of needs will be developed as part of the annual budget process.

11.1. Current Status

11.1.1. Computer Workstations

- High School: 160
- Middle School: 161
- Elementary: 106

11.1.2. Cabling Infrastructure

- High School:
 - Fiber connection to Middle School
 - CAT 5e cable throughout
- Middle School MDF:

- Fiber connections to High School and Elementary
- Fiber connections to 3 IDF locations
- CAT 5 and 5e to computers
- Elementary School:
 - Fiber connection to High School
 - CAT 5e throughout

11.1.3. Network Hardware

- All switches 2-3 years old
- New Firewall in 2007

11.1.4. Network Operating System and Servers

- Approximately 10 servers, all located at Middle School
- All but one: Windows
- One MAC
- All are old and a scheduled replacement is needed, starting this year.

11.1.5. Connectivity and Internet

- Project Interconnect connection is to TBA ISD through fiber.

11.1.6. Software Applications

- A variety of instructional software is loaded on lab and classroom computers as required by the curriculum. These include: Inspiration, Kidspiration, Math Blaster
- MS Office is loaded on most classroom, lab, and office computers
- MS Works is loaded on all elementary computers
- The following packages are run from the server and are available on all computers with appropriate login:
 - Student Attendance and Grades (PowerSchool)
 - Accelerated Reader
 - Library Catalog and Circulation
 - MOIS
- Business Office software capabilities
 - Requisition to Purchase Order
 - Student Accounting
 - Finance and HR

11.1.7. Telephone System

Current Meridian phone system is aging, but adequate for current needs.

11.2. Current and Future Needs

The following areas of concern may be addressed during the term of this plan:

- Building cabling modifications?
- Improved connectivity between the two campuses
 - Improve Internet bandwidth between and within buildings
 - Allow for single instance of admin software
- Investigate the feasibility of mobile wireless labs in both buildings

- Scheduled replacements of network electronics (switches) in both buildings.

11.3. Technical Standards

Technical standards for district assessment of donations, new purchases, and retirement of technical resources will be reviewed on an annual basis and published.

- Minimum technical standards for donations is:
 - Pentium 4 - 1Ghz
 - 512Mb RAM
 - 20 Gb HDD
 - CRT: 17" minimum; LCD: 15" minimum
- All new technology purchases will be compatible with Windows Server 2003 and Windows XP.
- All new technology purchases will be Intel/Windows Vista, downgraded to XP Pro

11.4. Technical Support

- Contract technical support 1 FTE (Common Sense Computers)
- Consultant: 1 PT (Trimble Consulting)

12. ACCESS TO TECHNOLOGY

Access to technology will be assessed as part of the annual review of this Plan. Progress is expected toward this goal of continual improvement in access to technology for all district students, staff, and community.

12.1. Access to Resources

- Computer labs will be actively scheduled to ensure access to all students.
- Access to computer labs by parents and community will be allowed when not needed by students. Public use will only be scheduled when security and technical integrity can be assured.
- Wireless technologies will be explored as a way to make computer resources more available to classroom teachers and students.
- ISD resources will be explored for adaptive special needs.

13. FUNDING AND BUDGET

The budget items covered by this Technology Plan are projected to remain constant, or increase slightly, as a percentage of the total district budget. The actual amounts available will be determined on a yearly basis.

13.1. Variables

- The single largest variable is the State of Michigan's School Aid Budget. The actual amounts available to the district are unknown. Without this information from the State, it is impossible to predict the amount of budget money that will be available for the implementation of this Plan.
- The only projections possible are as a percentage of the general fund budget. The following projections are based on current spending, as a percentage of the total general fund budget.

13.2. Baseline Amounts: 2007-2008

The following amounts have been budgeted for technology related items for the fiscal year 2007-2008.

Hardware and networking costs:	\$	12,932.00
Maintenance and service costs:	\$	2,128.00
License agreements:	\$	5,822.00
Software and curriculum support:	\$	7,342.00
Professional development and training:	\$	606.00
Technical support:	\$	98,719.00
Computer workstations:	\$	21,027.00
Total technology expenditures:	\$	148,576.00
Percentage of General Fund budget:		1.6%
General Fund Budget:	\$	9,368,245.00

13.3. Projections for 2008-2009

The following budget projections assume

- A 1.5% increase in salary and fringe costs
- A 1% increase in other tech budgets

Hardware and networking costs:	\$13,061.32
Maintenance and service costs:	\$2,149.28
License agreements:	\$5,880.22
Software and curriculum support:	\$7,415.42
Professional development and training:	\$612.06
Technical support:	\$100,693.38
Computer workstations:	\$21,237.27
Total technology expenditures:	\$151,048.95
Percentage of General Fund budget:	1.61%

13.4. Projections for 2009-2010

The following budget projections assume

- A 1% increase in salary and fringe costs
- A 0% increase in other tech budgets

Hardware and networking costs:	\$13,061.32
Maintenance and service costs:	\$2,149.28
License agreements:	\$5,880.22
Software and curriculum support:	\$7,415.42
Professional development and training:	\$612.06
Technical support:	\$101,700.31
Computer workstations:	\$21,237.27
Total technology expenditures:	\$152,055.88
Percentage of General Fund budget:	1.62%

13.5. Projections for 2010-2011

The following budget projections assume

- A 1% increase in salary and fringe costs
- A 1% increase in other tech budgets

Hardware and networking costs:	\$13,191.93
Maintenance and service costs:	\$2,170.77
License agreements:	\$5,939.02
Software and curriculum support:	\$7,489.57
Professional development and training:	\$618.18
Technical support:	\$102,717.32
Computer workstations:	\$21,449.64
Total technology expenditures:	\$153,576.44
Percentage of General Fund budget:	1.64%

14. COORDINATION OF RESOURCES

As technology based solutions become more common, the amount of money needed to support these technical systems increases. To meet this increasing need, the following sources of funding resources will be explored.

14.1. Funding Option Possibilities

- Building funds (consumables)
- USF (E-Rate)
- Grants (local, state and federal)
- Collaboration
- Parent Organizations

15. MONITORING AND EVALUATION

15.1. Evaluation Process

- This plan will be evaluated on an annual basis as part of the School Improvement Process.
- Annual staff and student needs surveys will be conducted to assess the change, if any, in the way technology is used in teaching and learning.
- A priority list of technology expenditures will be developed each year as part of the budget process.

15.2. Indicators of Success

- Progress on the technology priority list will be assessed yearly with the results becoming the basis for the following year's list.
- An increase in the use of technology in teaching and learning, as measured by the annual surveys, will determine the level of success.

15.3. Monitoring and Evaluation Responsibility

Responsibility for the monitoring of progress and evaluation will rest with the Technology Committee which will prepare an annual report of progress to be delivered to the superintendent on an annual basis.

16. ACCEPTABLE USE POLICY

- The district Acceptable Use Policy is attached as Appendix B. This Policy is currently under review by district legal council to ensure compliance with CIPA and other federal requirements.
- This policy will be reviewed annually to make sure it is in compliance with government regulations.
- Internet content filtering is provided by an internal firewall appliance.

17. APPENDIX A LESSON SAMPLES

Roger Elder: Mancelona Elementary School

Concept/Lesson Title	Graph It!
Grade Level	Grades 3 and 4
Subject Areas	Mathematics, Language Arts, Technology
Content Standards	Michigan: Mathematics /Strand III/Content Standard 1/Elementary Benchmark 2, Michigan: English/Language Arts Strand III/Content Standard I/Elementary Benchmarks 1, 3, 5. Technology: Mancelona: Grade 4 Word Processing, Desktop Publishing, Multimedia
Instructional Objectives (Must be standards based.)	<ol style="list-style-type: none"> 1. Students will predict, collect, organize, display, and analyze data using a frequency table, pictograph, and bar graph to draw conclusions and solve problems. 2. Working in groups, students will develop survey topics and appropriate questions that will then be answered by others. 3. Students will use Microsoft Excel[®] and Microsoft Word[®] to create graphs and questions based on their student-developed surveys.
Student Evaluation/Assessment	Mancelona Math Standard 4:12
Prerequisite Skills	<ol style="list-style-type: none"> 1. Creation of a spreadsheet document, using Chart Wizard to create graph using Microsoft Excel[®]. 2. Creation of a word processing document using Microsoft Word[®].
Required Materials and Resources Technology (hardware and software)	<ol style="list-style-type: none"> 1. Samples of bar graphs. 2. Microsoft Excel[®]. 3. Microsoft Word[®]. 4. Paper, pencils.
Printed and other materials	
Useful Internet Resources	Students' Classroom Create A Graph found at http://nces.ed.gov/nceskids/graphing/ Education Place Activity: Making A Living Graph found at http://www.eduplace.com/ss/act/graph.html
Procedures	<ol style="list-style-type: none"> 1. Over a week's time, students will learn how to analyze and interpret bar graphs. During this period of time they will be given opportunity to develop

	<p>questions that could be answered by the information found in the graph.</p> <ol style="list-style-type: none"> 2. Students' conceptual understanding of data analysis will be further enhanced by exposure to the material on bar graphs found on the Internet. 3. Using a LCD Projector, students will learn the basics of Microsoft Excel[®] including data input and using Chart Wizard to create a bar graph. 4. Students will create a graph using Excel. The graphs will be created from data gleaned in a classroom survey. 5. Student learning teams will develop a survey topic. They will then survey their classmates using their chosen topic, and then input the results into a spreadsheet program in order to create a graph. 6. Student learning teams will develop 4 or 5 questions based on their learning team's graph. The students will place their bar graph into a word processing document along with their team-generated questions. Copies of their worksheet assignment will be made and then distributed to their classmates. 7. Students will be assessed using the Math Standard 4:12 Assessment Test.
<p>Modifications for Differentiated Instruction</p>	<ol style="list-style-type: none"> 1. Students will be assigned to heterogeneous learning teams so that average and high-ability students can assist low-ability students. 2. Students who are at-risk readers or who are classified as English/Language Arts impaired will have the option to have questions aloud to them.
<p>Remediation/Reteach</p>	<ol style="list-style-type: none"> 1. Students not making the proficiency score for the assessment will review material in the academic lab. 2. Students who are at-risk readers or who are classified as English/Language Arts impaired will have the option to have questions aloud to them.

Heather Janik: Mancelona Middle School

Four Technology Rich Lesson Examples

1. Musical Computers

Target Audiences: 5th Grade (later in 6th grade)

Uses the same idea as Musical Chairs, only students are moving around the class and adding on to other students' stories. This helps to reinforce keyboarding skills; also, editing/ writing skills.

Tools:

1. Microsoft Word
2. Music
3. Timer

2. Digital Quilt

Target Audiences: 5th/ 6th Grade

This is designed to focus on digital photography skills. However, it also goes into looking at the history of quilting and looking at what makes up our school community.

Tools:

1. Patchwork Quilt by Valerie Flournoy
2. United Streaming: History of Quilting
3. Digital Camera
4. Photo editing software

3. 80 Days That Changed the World

Target Audiences: 7th/ 8th Grade

This lesson was designed to focus on creative writing, thinking outside the box, evaluating meaningful moments in your life or in the development of the world as we know it and using digital photography.

Tools

1. Digital Cameras
2. Photo Editing Software
3. PowerPoint
4. Photobook Publishing Site (www.kodakgallery.com)

4. Public Service Announcements

Target Audiences: 8th Grade

This lesson was designed to focus on writing, producing and editing a movie. However, much to the kids disappointment, I didn't want them to just create any movie, I wanted it to have heart. They worked with a partner because two thinking caps are better than one.

Tools

1. Digital Cameras
2. MovieMaker
3. YouTube (<http://www.youtube.com>)

18. APPENDIX B ACCEPTABLE USE POLICY

Effective performance of computer and telecommunications networks, whether local or global, relies upon end users adhering to established standards of proper conduct. This regulation defines the responsibilities of Mancelona Public School employees and students using network and Internet resources provided by public funds. In general, this requires efficient, ethical, and legal utilization of network resources. If a user violates any of these provisions, his or her access to the schools telecomputing resources will be denied and disciplinary action will be taken. This resource, as with any other public resource, demands those entrusted with the privilege of its use be accountable. Use of the districts network resources during school and professional hours must be (1) in support of education and/or research or (2) for school business, and (3) it must support the mission of the Mancelona Public Schools and (4) be in accordance with all School Board Policies. Use of the Schools network resources is a privilege, not a right.

A. Purpose

The School provides employees and students with access to the districts computer system, which includes Internet access. Use of the districts system is limited to educational purposes which include, but are not limited to, promoting educational excellence, resource sharing, facilitating innovative instruction and communication and preparing students to live and work in the 21st century by providing them with electronic access to a wide range of information and the ability to communicate with people from throughout the world. Further, the system will enable employees to upgrade skills and knowledge through the enhanced ability to exchange information with peers. The districts system will also assist the district in sharing information with the local community, including parents, local, state and federal governmental departments, agencies or employees and businesses.

B. District Responsibilities

The Director of the Office of Technology shall serve as the coordinator overseeing the district system. The principal or department director shall serve as the site coordinator overseeing the system within a school or department/office. The Director of the Office of Technology or designee shall be responsible for, among other things, establishing individual (employee) and class accounts, setting quotas for disk usage on the system, establishing a retention schedule establishing a district virus protection process and ensuring that each employee and student accessing the district system has on file an Acceptable Use Agreement signed by the employee or the student and his/her parent(s) or guardian(s).

A. Technical Services Provided through the District System

1. E-mail: E-mail will allow account holders to communicate with people from throughout the world.
2. Internet: The Internet provides access to a wide range of information in the form of text, graphics, photographs, video and sound. The Internet is a valuable research tool for students and employees.
3. Filtering: The district provides filtered Internet access. Filtering levels for all students are determined by the Superintendent and state guidelines.

B. Access to the System

The prohibitions set forth in School board Policy and herein will govern all use of the district system. Student use of the system will also be governed by the Code of Student Conduct and School Board Policies and District Regulations governing student discipline.

C. Parental Notification and Responsibility

The district will notify parents and legal guardians about the district system and the School Board Policy and District Regulation governing its use. A parent who does not want their child(ren) to have access to the Internet may memorialize that decision via the Acceptable Use Agreement. Parents and legal guardians also have the right to revoke their permission and terminate a student's Internet access at any time. The district will provide when requested information to parents about the filtering software used by the districts, describe the filtering levels in place at each level (elementary, middle and high school) and remind parents that the district cannot transmit the social values of the family to each child. The district's Acceptable Use Policy and this regulation contain restrictions on accessing inappropriate material. There is a wide range of material available on the Internet, some of which may not fit with the values of particular families. It is not possible for the district to monitor and enforce social values in student use of the Internet. Further, the district recognizes that parents bear primary responsibility for transmitting their particular set of family values to their children. Therefore, the district encourages parents to specify to their child(ren) what material is and is not acceptable for their child(ren) to access through the district's system.

D. District Limitation of Liability

The district makes no warranties of any kind, either express or implied, that the functions of the services provided by or through the district's system will be error-free or without defect. The district will not be responsible for any damage users may suffer, including but not limited to, loss of data or interruptions of service. The district is not responsible for the accuracy or quality of the information

obtained through or stored on the system. The district will not be responsible for financial obligations arising through the unauthorized use of the system.

E. Due Process

The district will cooperate fully with local, state and federal officials in any investigation concerning or relating to any illegal activities conducted through the district's system. In the event that there is an allegation that a student has violated the district's Acceptable Use Policy or the provisions of this regulation, the student will be provided with a written notice of the alleged violation and an opportunity to present an explanation before the district terminates his/her account privileges. Disciplinary actions will be tailored to meet the specific concerns related to the violation and to assist the student in gaining the self-discipline necessary to behave appropriately on an electronic network. If the alleged infraction involves a violation of other provisions of the Code of Student Conduct or other School Board Policies and District Regulations governing student discipline, the violation will be handled in accordance with School Board Policy and its implementing regulations. Employees violating the Acceptable Use Policy and the provisions of this regulation are subject to disciplinary action by the Superintendent or designee. Violations of the Acceptable Use Policy and the provisions of this regulation may subject the employee to disciplinary action up to and including dismissal, depending upon the nature of the violation. Violations of the Acceptable Use Policy and this regulation will also be addressed by the Director of the Office of Technology who may terminate the system privileges of an employee by giving written notice of the alleged violation and the opportunity to respond.

F. Search and Seizure

System users have no right of privacy and should have no expectation of privacy in materials sent, received or stored in School Board-owned computers or on the district system. School officials reserve the right to review district system use at any time to determine if such use meets the criteria set forth in School Board Policies and District Regulations. Routine maintenance and monitoring of the system may lead to the discovery that the user has or is violating the Acceptable Use Policy and this regulation, the Code of Student Conduct or other School Board Policies and District Regulations governing student discipline or the law. Once a problem is discovered, an individual search will be conducted when there is a reasonable suspicion that the user has violated the law, the Code of Student Conduct or School Board Policies or District Regulations governing student discipline. The nature of the search/investigation will be reasonable and in keeping with the nature of the alleged misconduct. Employees should be aware that their personal files may be subject to public inspection and copying under state law.

G. Copyright, Plagiarism and Attribution

School Board Policies and District Regulations will govern the use of material accessed through the district system. Because the extent of copyright protection of certain works found on the Internet is unclear, employees will make a standard practice of requesting permission from the holder of the work if their use of the material has the potential of being considered an infringement. Teachers will instruct students to respect copyright and to request permission when appropriate. School Board Policies and District Regulations on plagiarism will govern the use of material accessed through the district system. Teachers will instruct student in appropriate research and proper methods of attribution. No software will be loaded on any system with out the consent of the districts technology director. Any software not approved but loaded by a user will be deemed a misuse of the system and actions will be taken against said account.

H. Academic Freedom, Selection of Material, Student Rights to Free Speech

School Board Policies and District Regulations on academic freedom and free speech will govern the use of the Internet. When using the Internet for class activities, teachers will select material that is appropriate in light of the age of the students and that is relevant to the course objectives. Teachers will preview the materials and sites they require or recommend that students access to determine the appropriateness of the material contained on or accessed through the site. Teachers will provide guidelines and lists of resources to assist their students in channeling their research activities effectively and properly. Teachers will assist their students in developing the skills to ascertain the truthfulness of information, distinguish fact from opinion, and engage in discussions about controversial issues which demonstrates tolerance and respect for those who hold divergent views.

I. Political Use of the District System

Employees may not use the district system to engage in "partisan political activities".

J. District Web Site

The district has established a Web site and Web pages that present information about the district. The Webmaster with responsibility for maintaining the district Web site. The building principal's or designee is responsible for overseeing the development and the content of authorized school web sites.

K. District Requirements of Acceptable Use

The following acceptable use requirements will be stated in the district's Acceptable Use Agreement and will be reinforced to students by instructors.

L. Personal Safety (Restrictions are for students only):

1. Students will not post personal contact information about themselves or other people. Personal contact information includes home, school or work addresses, telephone numbers, etc.
2. Students will not agree to meet with someone they have met online without the approval of their parents or legal guardians.
3. Students will promptly disclose to a teacher or other administrator or school employee any message they receive that is inappropriate, offensive or makes them feel uncomfortable.

M. Illegal Activities

1. Users will not attempt to gain unauthorized access to the district's system or to any other computer system through the district's system, or go beyond their authorized access. This includes attempting to log in through another account or accessing or attempting to access another person's files without authorization. These actions are illegal, even if only for the purpose of browsing.
2. Users will not deliberately attempt to disrupt the district's system performance or destroy data by spreading computer viruses or by any other means.
3. Users will not use the district's system to send, receive, view or download any illegal materials or engage in any other illegal act (e.g. arranging for the sale/purchase of drugs, engaging in criminal gang activity or threatening the safety of another individual).

N. System Security

1. Users are responsible for the use of their individual account and should take all precautions to prevent others from being able to use their account.
2. Users will immediately notify the Director of the Office of Technology if they have identified a possible security problem.

O. Inappropriate Language

1. Restrictions against inappropriate language apply to public messages, private messages and material posted on Web pages. Students and employees will conduct themselves in a manner that is appropriate and proper as representatives of the school district.
2. Users will not use obscene, profane, lewd, vulgar, rude, inflammatory, threatening or disrespectful language.
3. Users will not post information that, if acted upon, could cause damage or a danger of disruption.
4. Users will not engage in personal attacks, including prejudicial or discriminatory attacks.

5. Users will not harass other individuals. Harassment in this context is persistently acting in a manner that distresses or annoys another person. If a user is told by a person to stop sending them messages, they must stop. Users will not knowingly or recklessly post false or defamatory information about a person or organization.

P. Respect for Privacy

Users will not post private information about another person.

Q. Respecting Resource Limits

Users will use the district's system only for education and professional activities during school and professional hours.

Users will not download large files unless absolutely necessary. If necessary, users will download the file at a time when the system is not being heavily used and immediately remove the file from the system to their personal computer.

Users will not engage in "Spamming." Spamming is sending an annoying or unnecessary message to a large number of people.

Users will check their e-mail frequently and delete unwanted messages promptly.

Employees will subscribe only to discussion group mail lists that are relevant. Any user abusing the system which in turn could result in a cost to the district set user will be financially responsible for all or part of the cost at the districts discretion.

R. Plagiarism and Copyright Infringement

1. Users will not plagiarize works that they find on the Internet. Plagiarism is taking the ideas of writings of others and presenting them as if they were original to the user. Users will use proper methods of attribution.
2. Users will respect the rights of copyright owners. Copyright infringement occurs when an individual inappropriately reproduces a work that is protected by a copyright. If a work contains language that specifies acceptable use of that work, the user should follow the expressed requirement. If the user is unsure whether or not they can use a work, they should request permission from the copyright owner.

S. Inappropriate Access to Material

1. Users will not use the district's system to access material that is profane or obscene (pornography), that advocates illegal acts, or that advocates violence or discrimination towards other people (hate literature). For students, a special exception may be made for hate literature only if the

purpose of such access is to conduct research and access is approved both by the teacher and the parents or legal guardians.

2. All resources accessed by students via school computers or other technology equipment must support the curriculum.

19. APPENDIX C: USF

As an addition to our budget, we intend to supplement our school funding each year by applying to the Universal Service Fund for discounts on services. These services provide us with day to day essential operations.

08-09

Telecommunications:

- local telephone services
- long distance services
- cellular service

Internet Access

- email service (i.e. Gaggle, TBA)
- Web Hosting

Internal Connections

- Replacement switch modules
- Firewall
- File Servers (5)
- Tape Backup
- Wireless infrastructure

Basic Maintenance of Internal Connections

- Maintenance of eligible equipment

09-10

Telecommunications:

- local telephone services
- long distance services
- cellular service

Internet Access

- email service (i.e. Gaggle, TBA)
- Web Hosting

Internal Connections

- Additional replacement switch modules in all buildings
- Firewall
- File Servers (5)
- Wireless infrastructure

Basic Maintenance of Internal Connections

- Maintenance of eligible equipment

10-11

Telecommunications:

- local telephone services
- long distance services
- cellular service

Internet Access

- email service (i.e. Gaggle, TBA)
- Web Hosting

Internal Connections

- Firewall
- Replacement phone system

Basic Maintenance of Internal Connections

- Maintenance of eligible equipment