

Technology Plan

Dearborn Heights School District #7

District Technology Plan July 1, 2006 - June 30, 2009

District:

Dearborn Heights #7 School District
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District URL with Technology Plan Link:

<http://www.resa.net/District7>

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Introductory Material - SECTION 2

Mission Statement

It is the mission of the Dearborn Heights School District No. 7 to provide and promote challenging opportunities to all students, which will enable them to become productive citizens who function successfully in a rapidly changing world.

Introduction

Dearborn Heights School District #7 is one of three public school Districts located in the Detroit suburb of Dearborn Heights, Michigan. Four elementary schools, one middle school and one high school serve 2,815 students in the Dearborn Heights District #7 community. One third of the student population is "school of choice" and lives outside of the District's borders. Within the District, the median household income is \$64,021. Nearly 10% of households are single-parent households with children. The percentage of adults with a high school diploma is 86.9% and 19.1% holding a Bachelor's Degree. The amount of students receiving free and reduced lunch ranges from 39% - 51% per building. The ethnic breakdown of the students served in the District is 85.4% White, 0.8% Asian, 7.4% Black, 5.8% Hispanic and 0.6% Native American.

School Buildings

- Bedford Elementary School
 - Kindergarten through 5th grade
 - 18 teachers
 - 337 students
 - 51% free and reduced lunch
- Madison Elementary School
 - Kindergarten through 5th grade
 - 12 teachers
 - 287 students
 - 39% free and reduced lunch

- Pardee Elementary School
 - Kindergarten through 5th grade
 - 13 teachers
 - 335 students
 - 41% free and reduced lunch
- Polk Elementary School
 - Pre-primary impaired through 5th grade
 - 15 teachers
 - 376 students
 - 42% free and reduced lunch
- Oakley W. Best Middle School
 - 6th grade through 8th grade
 - 44 teachers
 - 706 students
 - 46% free and reduced lunch
- Annapolis High School
 - 9th grade through 12th grade
 - 38 teachers
 - 790 students
 - 35% free and reduced lunch

District Technology Committee

The District Technology Committee is the group responsible for the planning, implementation and assessment of the Technology Plan.

Name	Position
Susan Backman	Superintendent
Carl Weiss	Deputy Superintendent
Jeffrey Bartold	Assistant Superintendent
Barbara Gratton-Clark	Media Specialist, Annapolis High School
Julie Green	Media Specialist, Bedford Elementary
Bob Hodges	District Technology Department
Cris Johnson	Assistant Principal, O.W. Best Middle School
Valerie Lazar	Media Specialist, O.W. Best Middle School
Allison Meyer	Business Services Technology Teacher, Annapolis High School
Jennifer Mollett	Principal, Bedford Elementary
Mary Morrison	Media Specialist, Madison Elementary
William Murphy	Principal, Pardee Elementary
Erica Payne	Media Specialist, Polk Elementary
Dan Scott	Principal, Annapolis High School
Barbara Stuchell	Principal, Polk Elementary
Ron Wrublewski	Computer Teacher, O.W. Best Middle School
Linda Zibbell	Principal, Madison Elementary
Jon Znamerowski	Principal, O.W. Best Middle School

The Technology Committee is comprised of administrators, teachers and media specialists throughout the District. The representatives are chosen based on their interest in technology and their willingness to be active proponents of technology integration.

The primary goal of the Technology Committee is to ensure that all members of the District community have the resources and skills necessary to use technology to improve instruction, learning and student achievement. The Technology Committee has many on-going duties to achieve this goal. These duties include:

- developing and implementing District technology goals
- developing and implementing a K – 12 technology curriculum
- training and assisting the faculty and staff to use technology and integrate it into the curriculum
- reviewing hardware and software recommendations, and attending conferences and workshops

Vision and Goals - SECTION 3

District Technology Vision/ Mission Statement

Dearborn Heights School District #7 believes that technology will support and enhance the curriculum and instructional process and provide students with the information and technology literacy skills they will need to be productive citizens in a rapidly changing world.

Link to District Mission Statement

The technology mission statement has a direct link to the District mission statement. The infusion of technology into curriculum and instruction will help to create an ever-widening base of challenging educational opportunities to support and enhance existing curriculum and instruction. The use of the wide variety of technologies in the District will help to create self-directed learners who can successfully function in their chosen career pathways. The District believes that providing students with extensive exposure to and use of technology will help to meet the challenge.

District School Improvement Plan

The District is in the process of updating the School Improvement Plan. The proposed target goals are

- All Dearborn Heights School District # 7 students will master appropriate grade-level standards.
- All Dearborn Heights School District #7 students will take personal responsibility for success in school in grades K – 12.
- All students in Dearborn Heights School District # 7 will increase their knowledge and use of technology. The increase in technology will allow students to market themselves in an ever-changing technological society.

Background of Technology Planning Initiative

Dearborn Heights School District #7 has a strong commitment to providing technology to all students and teachers. In May 1999, a \$7.2 million bond was passed, which allowed the District to add state-of-the-art technology to each building. Since 1999, the District has implemented an infrastructure with full connectivity throughout all District buildings. Some highlights of the implementations are on-line computers in every classroom and new computer labs in every building. With the addition of a wide

variety of technology resources, the District has integrated those technologies into the curriculum with the goal of providing educational opportunities and improving student achievement.

Major Goals of the Technology Plan

- Integrate Michigan Educational Technology Standards (METS) into the District curriculum to support Michigan standards and benchmarks.
- Provide sustained professional development for teachers to enable them to integrate new technologies into their curriculum.

Goals for District Teachers

- Participate in professional development opportunities to enhance the use and integration of technology into the curriculum.
- Integrate “best practices” of technology into the core curriculum areas.
- Provide instructional strategies that address a variety of learning styles using technology resources.
- Implement a K-12 technology curriculum addressing the Michigan Educational Technology Standards (METS).

Goals for District Students

- Use the computer and other technological resources as a tool for college and/or future career pathways.

Link to School Improvement Plan Goals

The District intends through its school improvement plan to ensure that students will master grade-level standards and increase their knowledge and use of technology. The Technology Plan will work hand-in-hand with the School Improvement Plan to ensure success. By focusing heavily on integration of technology into the core curriculum areas as well as the teaching and learning process, it will ensure that students are well prepared to meet both goals. Through the development of a K – 12 Technology Curriculum, the District will create benchmark skills for technology knowledge and use. These skills will be taught in conjunction with core curriculum areas to strengthen students in both technology knowledge and use and mastery of grade-level standards.

Facilitation of Goals

The District has invested in a wide variety of technological resources that will help with the implementation of the goals set forth in this Technology Plan. Each classroom was equipped with at least two computers for student use, a teacher laptop, and a large TV/VCR/monitor. Most high school classrooms have a ceiling-mounted LCD projector. The District also added computer labs to each building. Schools are also equipped with grade-level appropriate hardware and software to facilitate the use and integration of technology into the curriculum. The District has made an ongoing commitment of \$200,000 per year from the general fund to maintain, upgrade and replace equipment.

The District has a subscription to Grolier Encyclopedias, an on-line encyclopedia database for K – 12 while the high school maintains a variety of database subscriptions. Additionally, the media specialists publicize and facilitate the use of a wide variety of on-line periodical databases available through Wayne County RESA and the Library of Michigan.

The District has explored a variety of approaches for technology training. Senior teachers have completed District computer application training through New Horizons. Younger staff bring up-to-date technology skills with them. Media specialists often assist teachers with technology training and creating units that incorporate technology into their curriculum.

I. Curriculum Integration Plan

A. Curriculum Integration - SECTION 4

Promoting student responsibility for his or her own learning is a key consideration in the development of the technology integration plan. The District is dedicated to providing students with the opportunity to use technology to practice problem-solving skills, to facilitate communication, and to expand creativity. Our primary curriculum goal is that technology be used as an integrated component of student learning in all curricular areas. We share the goal of No Student Left Behind in that we will "Assist every student in crossing the digital divide by ensuring that every student is technologically literate by the time the student finishes the eighth grade, regardless of the student's race, ethnicity,

gender, family income, geographic location, or disability." With that in mind, the District technology curriculum is designed to be integrated into the K-12 core curriculum. The content standards and curriculum integration ideas below will illustrate how technology can facilitate the delivery of existing core curriculum. Media specialists and classroom teachers at all levels will collaborate to integrate technology into everyday classroom lessons and activities.

Student Goals

Our student technology goals are based on the Michigan Curriculum Framework Content Standards and Benchmarks for Technology Education, the Michigan Educational Technology Standards (METS), and the American Library Association's Information Literacy Standards for Student Learning (as listed in Appendix A). The following have been established as content standards for technology.

1. Students will use and transfer technological knowledge and skills to accomplish independent and cooperative real world tasks thus preparing them for lifelong roles as technology users and, most importantly, critical thinkers.
2. Students will use technologies to input, retrieve, organize, manipulate, evaluate, and communicate information to varied audiences while understanding that the technologies are merely tools to help them perform their work.
3. Students will apply appropriate technologies to critical thinking, creative expression, and decision-making skills, thus becoming active participants in their own learning.
4. Students will employ a systematic approach to technological solutions by using resources and processes to create, maintain, and improve products, systems, and environments.
5. Students will apply ethical and legal standards in planning, using, and evaluating technology used by themselves and others.
6. Students will evaluate the societal and environmental impacts of technology and forecast alternative uses and possible consequences to make informed civic, social, and economic decisions.

Grade-Specific Technology Goals for K-8

The following grade-level specific technology goals can be used to provide ideas for teacher planning when integrating technology into the curriculum and incorporating technology use in the classroom. The MCF Technology benchmarks, METS standards and the District technology standards will be provided to every staff member as examples of ways to appropriately apply technology into specific content areas. The District has developed a technology curriculum for grades K – 8 (see appendix B). The District also will provide teachers with technology integration ideas such as those found in Appendix C. As this plan is implemented, grade-specific technology goals will be refined based on feedback from individual schools and curriculum committees within the District. These technology goals are written to support teachers in guiding students to become lifelong learners in an ever-changing world. A technology curriculum for grades 9-12 will be designed and implemented as part of this technology plan.

B. Student Achievement - SECTION 5

Dearborn Heights School District # 7 is committed to integrating technology into the curriculum to enhance both teacher and student performance. Technology will be used to enhance the curriculum and improve MEAP scores. Plans are underway to improve student achievement include developing and implementation of basic technology skill requirements. The use of technology is encouraged and supported by the administration and included in teacher evaluations. Teachers continue to be provided with various forms of professional development opportunities such as, teacher-to-teacher technology tutorials, and the use and referral to existing best practices. Web sites used to support integration models and best practices of technology integration can be found in Appendix D.

To encourage teachers to collaborate and develop lessons that integrate technology, our District will continue to offer teachers training opportunities, such as, the Curriculum and Technology Seminar currently offered by RESA. The District received math-science grant funds to participate in the Assessment Training Institute (ATI) in Portland OR during the summers of 2003 and 2004. A team of building and central office administrators attended the three day sessions each summer. The district then

followed up the administrator training with teacher inservices during the 2003-04 and 2004-05 school years that focused on integration of assessment strategies into lesson design. The district utilized the services of two assessment consultants from Wayne County RESA to assist with implementation.

Action Plan Timeline

2006-2007

- Ongoing training will be offered for teachers in technology integration and collaboration.
- Staff development programs will be offered that will encourage teachers to take full advantage of online communications and the network to enhance their teaching practices.
- The District will implement the iSafe curriculum, teaching the fundamentals of Internet safety to all students.
- A grade-specific technology curriculum will be developed for grades 9-12.
- Credit recovery classes will be offered at the high school via distance learning.
- Parents will have "Parent Connect" access to Zangle, the District's online grade management program.
- City-school Tech-Prep partnerships for specialized classes like CAD and CISCO will be continued. Initial steps will be taken to form school to business partnerships in these classes.
- The District's elementary Palm Pilot program will be sustained with grant funds or by a fourth source.
- Special Education teachers will be provided with special technology training and tools to enhance student achievement in this program.

2007-2008

- Staff development in technology skills and curriculum integration will continue so teachers and students will be able to attain the District technology proficiencies.
- The District will continue to explore scheduling options in the elementary schools to increase the collaboration time between teachers and the media specialists in order to maximize technology curriculum integration. One option could include

hiring library aides to free up more time for media specialists to work with teachers.

- The high school newspaper, the *Cougar Crier* will have an online version linked to the high school website.
- The District will partner with community resources to host an annual "Train the Seniors" event.
- The addition of the high school media center will enable our District to better serve the community. Initial plans are to hold parent workshops, which will feature topics such as Internet safety and an introduction to Zangle Parent Connect.
- The District will implement on-demand education opportunities via Podcasts.
- Distance-learning partnerships will be formed with other schools and organizations to enable regularly scheduled distance-learning programs.

2008-2009

- All teachers will be able to meet or exceed the District's or 9-12 METS technology proficiencies.
- All graduating seniors will be able to meet or exceed the District's technology proficiencies.
- A majority of teachers will use the District web site to communicate with students and parents through class web pages.
- The District's cable channel will be expanded to offer broadcasts of student events, board meetings, etc.

C. Technology Delivery - SECTION 6

Technology skills are required in almost every job in our society today. A good K-12 education must prepare students to seek further education as well as equip them with the skills needed to gain employment directly after high school. Students must be prepared for a variety of opportunities by being armed with an arsenal of technological and problem-solving skills. The District technology mission statement states that Dearborn Heights School District #7 aims to "provide students with the information and technological skills they will need to be productive citizens in a rapidly changing world."

To meet this mission, the District will use innovative strategies and resources for the delivery of instruction that might not otherwise be available to students. Some current and future strategies for such instruction are explained in this section.

Media centers and classrooms will continue their current telecommunications offerings. Offerings include local and worldwide online resources for research.

Distance learning opportunities have already been accessed in several schools with the help of WC-RESA's technological support. Students have participated in a Japanese tea ceremony and exchanged ideas on outer space with a NASA scientist. Projects like these relate directly to our curriculum integration goals by making technology an integral part of student learning. Future plans for distance education include writing grants to fund further distance-learning programs, educating and encouraging teachers to take advantage of this resource, and establishing partnerships with organizations, businesses, and schools to do regular distance learning.

An expanded number of courses available to District students through Michigan Virtual High School will be offered. Through the vocational partnership, there will be online courses offered on the Alternative Education program. A program of academic credit recovery will be offered to students through online programs. In keeping with the new Michigan requirements for graduation, delivery of Blackboard or online courses within the high school will be explored.

Video streaming facilitated by RESA allows teachers the use of materials that might not otherwise be attainable in our District. All teachers have immediate classroom access to this resource. Video segments are directly correlated to Michigan Curriculum Framework standards and benchmarks for every subject area. Future plans include a full integration of this resource into the curriculum as teachers learn to use it to its full capacity. Lesson modeling and training will be offered to teachers to provide ways to integrate video streaming into the curriculum.

Currently, all students have access to online career planning resources such as Career Cruising and Career Pathways Opportunities. The District is a Michigan Career Pathways District that encourages student career exploration in grades K-12. Through Multi-Purpose Period (Seminar) at the high school, students use technology to develop and explore their career goals.

High school students have the opportunity to take advantage of such specialized courses as Computer Aided Design (CAD), CISCO networking, and Graphic Design. These classes are offered as a school partnership program with other school Districts in our city to provide students with vocational classes. These programs offer an avenue for students to develop immediately applicable problem-solving and job skills. The purchase of new equipment for the Graphics Arts class has made it technologically based providing students with enhanced skill levels for vocational purposes. The CISCO class offered not only provides students will valuable job skills but also provides the District with cost effective technology support. The District plans to continue to expand and develop new partnerships as we emphasize real-world applications of technology.

The expansion of the media center and addition of an open-access computer lab at Annapolis High School has created a space that allows more effective team-teaching using technology. Collaboration between teachers and the media specialist is a daily occurrence.

The Palm Program was implemented in two elementary schools. Should funding become available through grants or fourth sources, there are plans for program expansion. This program offers students the opportunity to have constant one on one interaction with a technological resource right at their desks.

D. Parental Communication & Community Relations - SECTION 7

Dearborn Heights School District # 7 is committed to using technology to enhance and initiate services that extend beyond the schoolhouse walls. We will continue to take full advantage of new opportunities to improve communication with our community.

Communication is promoted by the District's web site. It currently provides parental and community access to school calendars, staff email addresses and other pertinent information. Additionally, all teachers have developed web pages to communicate more directly with students and parents. School Library Media Center pages provide links to subscription database services and the automated library catalog.

The local cable television station provides the District with hardware to create and broadcast District news from our middle school library. These news programs are

updated regularly on-site with current school information and promotions for parental involvement throughout the District. This channel's offerings will be expanded to include broadcasts of interest, such as, student events and board meetings. In the future, there will be student news broadcasts at each school building.

All teachers were originally provided with a laptop computer through the technology bond. The availability of laptops encouraged teachers to make use of online communication to the fullest extent. Those computers are currently be upgraded. Within the District network, faculty, staff, and administrator email communication affords the opportunity for collaboration and support, the exchange of student attendance information, participation in listserves and facilitates data collection and dissemination for school improvement purposes. Regularly used reporting forms are stored on a shared network drive so they may be easily accessed and completed by teachers. Future staff development will encourage teachers to take full advantage of these opportunities to enhance their teaching practices.

Parent/teacher conference times and Parent Nights at the elementary schools are be used to demonstrate technology projects. These events keep the parents informed of school efforts to integrate technology into the curriculum.

All teachers have a telephone and have voice mail in their classroom. Teachers' extension numbers are posted on the schools' web pages together with their email addresses. These options give parents a few ways to easily communicate with teachers.

District-wide implementation of Zangle has been completed. Zangle is a student management software program featuring online grading and attendance. This program will provide web access to parents so that they may monitor their child's progress and stay in close communication with the teachers. Not only will this program facilitate record keeping, but will involve the parents as partners in their child's education. Training and support will be provided for parents to enable them to access Zangle from home through the District web site.

ChalkTalk, the District newsletter, will continue to keep the community apprised of District activities. A "Technology Corner" feature will be carried in all elementary newsletters as well to keep parents informed of ongoing projects. Additionally, the media specialists will develop lists of summer reading books, homework help web sites

and educational web sites to be distributed to students and their parents on an ongoing basis.

E. Collaboration - SECTION 8

The District will support many forms of collaboration to provide technology literacy to students and the greater community.

The District has a broadband network connection that facilitates use of streaming video and teleconferencing. During the 2002-2003 school year, Dearborn Heights School District #7 is one of two Wayne County school Districts participating in a pilot video streaming program through WC-RESA. This program furnishes curriculum-based video clips that may be easily integrated into lesson plans. It provides a seamless manner of integrating technology into the instructional process. In the future, teachers will be encouraged and trained to more effectively use this resource.

The District has plans to partner with community resources to host an annual "Train the Seniors" afternoon. The middle school computer students will host the after-school training session for senior citizens from the nearby Eton Senior Center. Students can pair with visitors to introduce them to Microsoft programs and email.

Budgetary constraints have prohibited community after-hours access to technology in the past. The high school Library Media and Career Center has undergone renovation and expansion with the eventual intent of providing access during non-traditional school hours. This new Media Center is a self-sufficient section of the building with its own entry door and bathroom. There is a traditional research area, twelve networked computers, and an adjacent 28-computer lab. Should future funding allow, after-school availability would enable better service to the community and allow for greater technology collaboration among teachers, students, and community members.

There are initial plans to hold parent workshops that will feature topics such as Internet safety, adult career exploration, introduction to Zangle, and other technology education programs.

Collaboration Timeline

Current

- The District web site provides community-access to District information.
- The local cable station provides an education channel to display slide shows of activities throughout the District.
- Teachers and administrators communicate and collaborate through the use of email.
- Parents and community members have access to teachers' email addresses on the District web site.
- The electronic marquee at Annapolis High School is updated regularly to keep the community informed.
- All teachers have telephones and voice mail.
- The District newsletter, Chalk Talk, is mailed to all members of the community three times throughout each school year.

2006-2007

- The District Technology Plan will be linked from the District web site.
- Parent Access application of the Zangle Student Management System will enable parents online access to grades and attendance information.
- Elementary newsletters will include a "Technology Corner" in each issue featuring educational web sites and information.

2007 – 2008

- The Annapolis High School newspaper will be linked from the District web site.
- A regularly updated Library Media Center link will be added to the District web site.

2008 – 2009

- Broadcasts of taped student events will be televised to the community on the local cable station.

II. PROFESSIONAL DEVELOPMENT

F. Professional Development - SECTION 9

The goal of technology-based professional development in the District is for all faculty members to be successful at learning, utilizing, integrating, and benefiting from the technology that is available in the District. This plan will outline the strategies, processes, and outcomes that will be implemented to coordinate with these goals.

Our District has adopted the NETS standards for professional development. There are six (6) core areas to be addressed.

- I.** Technology operations and concepts
- II.** Planning and designing learning environments and experiences
- III.** Teaching, learning and the curriculum
- IV.** Assessment and evaluation
- V.** Productivity and professional practice
- VI.** Social, ethical, legal, and human issues

The NETS standards are goals for District staff. Teachers will be evaluated regarding their use of technology in accordance with the District's Teacher Evaluation System, "uses technology to enhance student achievement" (p. 44).

When faculty and staff have achieved the competencies outlined in NETS standards (see Appendix E for teacher competencies and Appendix F for administrator competencies), they will be more computer literate and able to effectively integrate technology into the curriculum. Improved teacher literacy in technology will assist in achieving the goals set forth in the ITAC standards of integrating technology to improve instruction and enhance student learning.

Development Strategies

Through the course of this technology plan, District faculty and staff will be able to accomplish the six NETS standards. Numerous strategies will be used to achieve these goals. The strategies will be recommended and coordinated by the Technology Committee and implemented by administration. The Technology Committee will use the resources provided in this plan to keep abreast of best practices in their recommendations for training. These strategies include, but are not limited to:

- Conferences and Workshops

Faculty will have on-going opportunities to attend conferences and training sessions that focus on technology integration. Some examples of available professional development opportunities are association conferences, such as Michigan Association for Computer Users in Learning (MACUL) and Michigan Association for Media in Education (MAME) Conferences and workshops such as those held at WC-RESA. As an incentive for faculty to attend, the time will be counted towards faculty members' professional development hours. When a faculty member returns from a conference or workshop, they will be asked to share what they learned with other faculty throughout the District.

- Online Courses

Online courses cover numerous subjects pertaining to technology ranging from skill-based tutorials to technology integration courses. Examples of web sites that offer such training are Michigan Virtual University (<http://www.mivu.org/>) and Atomic Learning (<http://www.atomiclearning.com/home>). Often State Board Continuing Education Units (SB-CEU) and other certifications can be obtained by completing these courses.

- Peer Training

Peer training may be presented in many forms, including before and after school mini workshops, workshops during in-service days, and as professional development sessions, depending upon the depth and breadth of what is being presented. Faculty members will be encouraged to conduct peer training upon the completion of specific training they received at a workshop or conference. Peer training may also take place when a faculty member has specific technology knowledge and experience with the integration of technology with the curriculum.

- Building Mentors

Each building will have a technology mentor, such as the media specialist, who is capable of providing technology support to peers in his or her building. This will provide for both immediate and follow up support for faculty. In larger buildings, such as the middle school and the high school, a team of key people will provide support as building mentors.

- Training for New Staff

As new faculty members are hired, they must be introduced to the network and variety of technologies that are available in the District. To accomplish this introduction to our network and resources, all new faculty members will participate in an in-service training during their orientation. Administrators and media specialists will determine the information in the in-service training. New faculty members must complete this training prior to receiving their network and email identification and laptop computer.

G. Supporting Resources - SECTION 10

The District will provide supporting resources to help teachers achieve the professional development goals set forth in this plan. These supporting resources include, but are not limited to:

- Print Resources

The District will implement a Professional Resource Section within the media centers at each school. This collection would contain books, professional journals, newsletters and other resources related to technology skill development and technology integration into the curriculum.

- Services

WC-RESA provides resources such as the TechKnow Newsletter and links from their web site to a variety of helpful sites for teachers. WC-RESA also has a lending library from which teachers can borrow resources that range in topics from skill development to technology integration.

- Software

The District will continue to use MI Climb and investigate MI Tracker for data analysis

Electronically Delivered Professional Development Materials

- Pro Quest is an online periodical database provided by RESA. Faculty can search for articles from magazines and professional journals regarding the incorporation of technology into the curricular area or grade level.

- The District will review the development and implementation of an informational web page that would allow staff to post best practices, lesson examples, and pose questions for group discussion.
- Video streaming (streaming.resa.net) is an online service provided through a partnership with WC-RESA. The service allows access to thousands of streaming video files that can be searched by grade level, Michigan Curriculum Framework, and subject. There are many professional development videos available through this service that can be used by individuals or at a technology in-service.
- There are a wide variety of web sites such as The Intel Innovator (<http://www.intel.com/education>) that provide teachers with information, resources and lesson plans related to technology integration.

Staff Development Timeline

The District has a commitment to providing ongoing professional development for technology integration. This timeline will be effective in helping the District monitor the progress that individual teachers are making toward the integration of technology into their instructional strategies. As the District acquires new technologies, the need for training will be assessed and provided.

2006 – 2007

- Technology tutorials, in-service training, and professional development opportunities will be offered to assist teachers in achieving the competencies outlined in the NETS standards.
- Media specialists will continue to review and assess books, journals and other resources for inclusion in a professional resource library; new high school professional library in newly added Teachers' Lounge will be completed.
- Training for new faculty continues each year, as needed, for new staff members.
- Teachers will be required to integrate student-used technology into at least one lesson per semester.

2007 - 2008

- Technology tutorials, in-service training and professional development opportunities will continue to be offered to assist teachers in achieving the competencies outlined in the NETS standards.
- Teachers will be required to continually integrate technology into their curriculum.
- Media specialists will continue to purchase, publicize and facilitate the use of materials in the Professional Resource sections of the building library collections.

2008 – 2009

- Technology tutorials, in-service training and professional development opportunities will continue to be offered to assist teachers in achieving the competencies outlined in the NETS standards.
- The Technology Committee will assess the success of the tutorials, in-service, and professional development offered. Recommendations based on the findings will be offered.
- Media specialists will both quantitatively and qualitatively assess the use of materials in the Professional Resource section of their library collection. Based on their findings, the media specialists will make recommendations for the continuation or adaptation of the strategy.

III. INFRASTRUCTURE, HARDWARE TECHNICAL SUPPORT AND SOFTWARE

H. Infrastructure Needs/ Technical Specification and Design - SECTION 11

The District passed a Technology Bond Fund in May 1999. These funds allowed the District to equip schools with technologies needed to better prepare students for a new century. Although a great deal of behind-the-scenes developments was implemented, the most apparent change was the addition of computers in every classroom. Each computer has access to network file storage, printers, educational software, and the Internet. The section below details existing and evolving District infrastructure, computers, peripheral equipment and software tools.

Infrastructure Backbone

Current Status

- Wide Area Network (WAN)
 - 8 Strands-Single Mode Fiber-Gigabit Backbone for Voice & Data to 5 buildings
 - Video over Fiber to 5 buildings.
- 6 Local Area Networks (LAN)
 - 100 BASE-T Switched Data Network
 - High School (1)
 - Middle School (1)
 - Elementary Schools (4)
 - Administration Building/Polk Elementary (1)

Future Needs

With all the buildings connected by 1000-megabyte-fiber, there is not a need to upgrade at this time. This will be assessed continually throughout the plan.

Voice-Video-Data Infrastructure

Current Status

- 100 BASE-T Switched Data Network Connections for all administrators, support staff, teachers, and students
- Separate Data Virtual LANs (VLAN) for Administrative Offices and each school
- Voice connections for all administrators, support staff, and teachers, via IP trunking over data fiber
- Internet Service is provided through a 100mb SBC line to RESA which has DS3 (45megabytes) to Merit

Future Needs

Although the current equipment is adequate, the District will develop a plan to replace and/or upgrade equipment and will implement the plan if needed.

Computers and Peripheral Equipment

Current Status

- Pentium and above PC compatible multimedia DELL Computers
- Approximately 150 Dell teachers computers and 1100 student computers

- Two wireless laptop carts equipped with thirty DELL laptops each
- Six servers
 - Four Novell file servers
 - One video server
 - One Follett server
 - One Zangle server is hosted/managed at WC-RESA.
- Currently, one Lexmark/HP laser printer per classroom, evolving into centralized printing centers as personal printers wear out.
- Twelve computer labs throughout the District with 32 stations each
- One GroupWise Email server hosted on one of the Novell servers referenced above
- Smartboard/Interactive Whiteboards in Library Media Centers

Future Needs

Although the District has a significant amount of technology, the purchase and integration of new technologies will be continually assessed. The District has purchased extended warranties versus replacement costs for the maintenance of current equipment. The District has made an annual \$200,000 general fund commitment to maintain and improve these levels of technology.

Software

Current status

Annual Contracts

- Microsoft Windows XP operating system
- Microsoft Office XP professional
- Novell Netware 6.0 server operating system
- Novell GroupWise 6.0 Email system
- SchoolCenter Web Page Development system

Additional Software

The District provides a wide variety of software to each building based on instructional needs. Below are examples of types of software that can be found throughout the District.

- Microsoft Visual Studio.NET at Annapolis High School

- Altiris Vision Lab Management software in every computer lab
- Accelerated Reader at all four elementary schools

Future Needs

The District Technology Committee will consistently evaluate the need for new or upgraded software packages to enhance student achievement. These will be purchased on an on-going and as needed basis.

Strategies for Interoperability and Continuous Upgrading

The District is committed to providing a network that will help the faculty and staff implement the goals of this plan. Through the efforts of the technical support staff, the District equipment will be kept operational on a consistent basis. A comprehensive plan for equipment maintenance and replacement will be developed to ensure the District will have current and operational technology to meet curriculum needs. Web-based file access to servers will be provided to all faculty and staff members to access their files from a remote location.

Technical Support

With the expanding role of technology in instruction and learning, the need for quick and reliable support is growing. Our current process to obtain technical support is very basic; when a staff member has a technical problem, he or she will send an email or call the helpdesk. When a technician is available, they will respond to the concern. If a technician cannot solve the problem, it will be escalated to the network administrator. If a problem is beyond the scope of the District staff's capabilities, the network administrator will consult the product manufacturer or a consulting firm. A ticket and work-log system has been developed to record complaints and responses.

The network administrator and technical support staff will keep current in regards to the functionality of all equipment. Vendor training, professional training, online resources, and RESA resources will accomplish this.

Technology Implementation Timeline

2006 – 2007

- Implement a "full-service" web page for the District and schools
- Upgrade computer software to support distance learning opportunities
- Upgrade Zangle Parent Connect

- Replace teacher computers with new desktop computers
- Install printer/copiers in all buildings
- Add new software as recommended by Tech Committee

2007 – 2008

- Add student laptops on wireless carts to each elementary building
- Add student PDAs, if grant funding available
- Upgrade Inventor/CAD software

2008 – 2009

- Assess the effectiveness of technology resources currently owned by the District. Develop a plan for future purchases based on the information obtained.

I. Increase Access - SECTION 12

Increased access to technology will be provided to all students and teachers by:

- commitment of funding in continuous maintenance and upgrading of hardware,
- providing before- and after-school access to computers in the middle and high school library media centers,
- facilitating auxilliary/remedial high school programs after school and on Saturdays, using technology in the media center

Assistive Technology

Each elementary classroom has audio enhancement. Research has shown that this type of technology enhances retention in the auditory impaired as well as the general education student body. The special education department is currently researching hardware and software equipment to enhance the education of students with special needs. This type of technology will be used as a tool to meet curriculum goals. A collaboration with the special services of WC-RESA provides additional assistance in making technology accommodations if necessary.

IV. FUNDING AND BUDGET

J. Budget and Timetable - SECTION 13

The Technology Plan Budget for the years 2006-2009 is shown on the attached table. The budget is funded from dollars generated from the general fund.

General Fund

The general fund provides for all technology operational costs including personnel, supplies, and purchased services. Technology costs include support (network administrator and computer technicians) in all Dearborn Heights District # 7 buildings that directly service student, staff, and administrative computing needs. Additional support for the network operations, cabling, and wiring closets are included.

Supplies, software licenses, updates, and outside support needed to maintain the computers, printers, and network are included. These include new purchases and support of the Follett Library Management System and the Zangle Student Management System that are currently in place. In total, this area of the technology budget is supported by the general fund.

Technology Bond Fund

The Technology Bond Fund passed in May 1999, provided funds for the initial purchase and replacement of:

▪ Dell Computers	▪ Renovations	▪ Furniture/Desks
▪ Laptops	▪ Architectural Design	▪ Marquee
▪ Printers	▪ Tech Consultants	▪ Printing Press
▪ Copiers	▪ Network Wiring	▪ Classroom Phones
▪ TV/VCRs	▪ Switches/Routers	▪ CAD Lab
▪ Projection Units	▪ Voice/Video Wiring	

Although the fiber and building cabling have a life of 15-20 years, the switches and routers will require more frequent replacement and have been budgeted in the general fund. Software was bundled on the computer units that were covered under the Technology Bond Fund.

TECHNOLOGY OPERATIONS EXPENSE	FTE	2006-07		2007-08	2008-09
(funded from general fund)					
Technology Support Personnel					
Buildings/Central	4	\$175,000		\$180,250	\$185,657
Technology Staff Development Personnel					
Trainers/In-service Training		16,625		18,625	20,625
Subtotal Personnel Expense		191,625		198,875	206,282
Maintenance/Operations					
Computers		150,000	*a	100,000	150,000
Local Area Network/Wide Area Network		50,000		50,000	50,000
Building Computer Supplies/Software		200,000		210,000	220,000
Administrative Software Applications		16,000	*b	17,000	18,000
Follett Software: Library		5,000		5,000	5,000
Zangle: Parent Connection		4,500		4,500	4,500
Subtotal Operations Expense		425,500		386,500	447,500
Total Personnel & Operations Expense		617,125		585,375	653,782
CAPITAL EXPENSE (funded from					
Capital Projects Technology Bond)					
Computers					
TV/VCR					
Peripheral Equipment					
Projection Units					
Video Conferencing					
Servers					
LAN					
WAN					
Library Design/Construction					
Network Electronics					
Other (SmartBoard)					
Subtotal Capital Expense				0	0
ANNUAL ESTIMATED TECHNOLOGY EXPENDITURES		\$617,125		\$585,375	\$653,782

*a- Computers not covered under Dell warranty

*b- Novell volume license agreement

K. Coordination of Resources - SECTION 14

A commitment of an annual \$200,000 of general fund finances has been made to the maintenance, upgrade, and replacement of technology. Due to staff attrition in the technology department during the past several years, integration of technology has not been uniform throughout the district. The district has contracted with consultants from Plante and Moran for a complete technology review. This review will provide recommendations to improve technology implementation as well as enable the district to “benchmark” with how other organizations are using technology to meet the needs of students and teachers.

Grant programs are actively sought to enhance and improve the current programs. Currently, Madison Elementary School has applied for a grant through the Detroit Science Center to support the classroom PDA program in that building.

From early participation in Michigan Career Preparation system, through the Career Prep grant, we began providing resources that foster career awareness and exploration of careers as well as Career Pathway activities to students at all grade levels. Although the grant funding has ended, we continue with the program. A web site, *Career Prep: Links to Your Future*, is available for students and community residents to assist in career exploration. Similarly, an early Talented and Gifted grant introduced digital video production to students. Peer-to-peer training continues that program.

V. MONITORING AND EVALUATION

L. Evaluation - SECTION 15

An important component of a technology plan is the ability to monitor progress toward goals and adjust direction where necessary. Integration of technology into a curriculum and instruction is monitored through a three-tiered process:

1. Staff survey of technology integration (ITAC Standards) and gap analysis during the 2003 school year.
 - a. Survey for elementary classroom teachers by grade level
 - b. Survey for elementary enrichment teachers (K-5)
 - c. Survey for secondary teachers by department
2. Staff survey (Plante & Moran) of technology integration, system support and training and professional development during the 2005-06 school year.

3. Monitoring of student work
 - a. Keyboarding standards
 - b. Student-created presentations
 - c. METS checklist
4. Monitoring of Teacher Implementation of Technology
 - a. Teacher lesson plans
 - b. Non-tenured Teacher Portfolios
 - c. Anecdotal reporting

Through the use of this three-tiered approach, the District will continually assess and document progress toward the integration of technology across the curriculum.

Additionally, the District will use a gap analysis to shape staff professional development with respect to technology implementation.

Category	Goal	Measurement Intervals	Indicators of Progress
Major Goals	1. Integrate Michigan Educational Technology Standards (METS) into the district curriculum to support Michigan Curriculum Framework.	Annual	The staff survey will be conducted annually. The first survey will establish baseline data and guide district level decision-making with respect to professional development. The annual updates will assess progress toward integration of technology across the curriculum. Release time will be provided to evaluate survey results.

	2. Provide sustained professional development for teachers to enhance their integration of new technologies into their curriculum	Annual	The district will maintain a representative on the REMC Advisory Council attending PD meetings at WC-RESA who will act as trainer-of-trainers. Such training will be documented.
Teacher Goals	1. Participate in professional development opportunities to enhance the use and integration of technology into the curriculum.	Annual	Integration will be evidenced in lesson plans and administrative evaluations.
	2. Integrate "best practices" of technology into core curriculum areas.	Annual	Maintain media specialists in each building. At the high school level, these practices will be shared within Learning Communities.
	3. Provide instructional strategies that address a variety of learning styles using technology resources.	Annual	The district, in partnership with Wayne RESA, continues to implement a series of technology seminars.
Student Goals	1. Students will use and transfer technological knowledge and skills to accomplish independent and cooperative real-world tasks, thus preparing them for lifelong roles as technology users and, most importantly, critical thinkers.	Annual	Every student in grades K-5 attends 30-60 minutes of technology classes each week. Grades 6-8 attend classes for one card marking per year.

	<p>2. Students will use technologies to input, retrieve, organize, manipulate, evaluate, and communicate information to varied audiences while understanding that the technologies are merely tools to help them perform their work.</p>	<p>Annual</p>	<p>Every student in grades K-5 attends 30-60 minutes of technology classes each week. Grades 6-8 attend classes for one card marking per year.</p>
	<p>3. Students will apply appropriate technologies to critical thinking, creative expression and decision-making skills, thus becoming active participants in their own learning.</p>	<p>Annual</p>	<p>Usage of student-generated multimedia presentations, and software applications.</p>
	<p>4. Students will employ a systematic approach to technological solutions by using resources and processes to create, maintain, and improve products, systems, and environments.</p>	<p>Annual</p>	<p>Student-created products show increased integration of technology.</p>
	<p>5. Students will apply ethical and legal standards in planning, using and evaluating technology used by themselves and others.</p>	<p>Annual</p>	<p>Student-created projects model appropriate reference citations and usage of reliable sources of information.</p>

	<p>6. Students will evaluate the societal and environmental impacts of technology and will forecast alternative uses and possible consequences to make informed civic, social, and economic decisions.</p>	<p>Annual</p>	<p>Students show ability to evaluate new technological innovations in terms of their impact on environment, worker productivity and consumers.</p>
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Plan for Addressing Unmet Goals

If progression does not meet Michigan Educational Technology standards (METS), the media specialists’ and principals’ guidance on a building-by-building basis will be used to plan instruction for teachers and students to meet the above mentioned goals.

Plan for Addressing Met Goals

If progression shows the goals being met, the media specialists’ and principals’ guidance will be used in conjunction with professionals in the field on a building-by-building basis to challenge our teachers to increase their level of integration and innovation as it relates to technology.

Person Responsible for Update

Dearborn Heights School District #7 assigns the responsibility of updates to the District Technology Director/Committee in order to actively achieve success.

Evaluation Strategy

The Technology Committee will continually update assessments to address the changing needs of our students and staff as it relates to the METS and ITAC standards. The District’s technology committee will annually monitor progress and address areas of concern. Our three-tiered assessment process will enable the committee to effectively evaluate progress toward goal attainment.

M. Acceptable Use Policy - SECTION 16

Dearborn Heights School District No. 7

Bylaws & Policies

7540 - COMPUTER TECHNOLOGY AND NETWORKS

The Board of Education is committed to the effective use of technology to both enhance the quality of student learning and the efficiency of Board operations. It also recognizes that safeguards have to be established to ensure that the Board's investment in both hardware and software is achieving the benefits of technology and inhibiting negative side effects.

The Superintendent is directed to establish administrative guidelines not only for proper acquisition of technology but also to provide guidance to staff and students concerning making appropriate and ethical use of the computers and other equipment as well as any networks that may be established.

The Superintendent shall establish appropriate procedures to inform both staff and students about disciplinary actions that will be taken if Board technology and/or networks are abused in any way or used in an illegal or unethical manner.

Revised 4/15/02

7540.01 - TECHNOLOGY PRIVACY

The Board of Education recognizes its staff members' right to privacy in their personal lives. This policy serves to inform staff members of the Board's position with respect to staff-member privacy in the educational and workplace setting and to protect the Board's interests.

All computers, telephone systems, electronic mail systems, and voice mail systems are the Board's property and are to be used primarily for business purposes. The Board retains the right to access and review all electronic and voice mail, computer files, data bases, and any other electronic transmissions contained in or used in conjunction with the Board's computer system, telephone system, electronic mail system, and voice mail system. Staff members should have no expectation that any information contained on such systems is confidential or private.

Review of such information may be done by the Board with or without the staff member's knowledge. The use of passwords does not guarantee confidentiality, and the Board retains the right to access information in spite of a password. All passwords or security codes must be registered with the Board. A staff member's refusal to permit such access may be grounds for discipline up to and including discharge.

Computers, electronic mail, and voice mail are to be used for business and educational purposes. Personal messages via Board-owned technology should be limited in

accordance with the Superintendent's guidelines. Staff members are encouraged to keep their personal records and personal business at home.

Because the Board's computer and voice mail systems are to be used solely for business and educational purposes, staff members are prohibited from sending offensive, discriminatory, or harassing computer, electronic, or voice mail messages.

The Board is interested in its resources being properly used. Review of computer files, electronic mail, and voice mail will only be done in the ordinary course of business and will be motivated by a legitimate business reason. If a staff member's personal information is discovered, the contents of such discovery will not be reviewed by the Board, except to the extent necessary to determine if the Board's interests have been compromised. Any information discovered will be limited to those who have a specific need to know that information.

The administrators and supervisory staff members authorized by the Superintendent have the authority to search and access information electronically.

All computers and any information or software contained therein are property of the Board. Staff members shall not copy, delete, or remove any information or data contained on the Board's computers/servers without the express permission of the Superintendent or designee or communicate any such information to unauthorized individuals. In addition, staff members may not copy software on any Board computer and may not

bring software from outside sources for use on Board equipment without the prior approval of the technical screening committee. Such pre-approval will include a review of any copyright infringements or virus problems associated with such outside software.

Revised 4/15/02

Revised 4/18/05

7540.02 - DISTRICT WEB PAGE

The Board of Education authorizes the creation of web sites by employees and students of the School District to be published on the World Wide Web. The creation of web sites by students must be done under the supervision of a professional staff member. These web sites must reflect the professional image of the District, its employees, and students. The content of all pages must be consistent with the Board's Mission Statement and is subject to prior approval of the Superintendent or designee.

The purpose of such web sites is to educate, inform, and communicate. The following criteria should be used to guide the development of such web sites:

A. Educate

Content provided in the web site should be suitable for and usable by students and teachers to support the curriculum and the Board's Objectives as listed in the Board's Strategic Plan.

B. Inform

Content may inform the community about the school, teachers, students, or departments, including information about curriculum, events, class projects, student activities, and departmental policies.

C. Communicate

Content may provide an avenue to communicate with the community.

The information contained on the web site should reflect and support the Board's Mission Statement, Educational Philosophy, and the School Improvement Process.

When the content includes a photograph or information relating to a student the Board will abide by the provisions related to - Student Records.

All links included on the pages must also meet the above criteria and comply with State and Federal law (e.g. copyright laws, Children's Internet Protection Act).

Under no circumstances is a web site to be used for commercial purposes advertising, political lobbying or to provide financial gains for any individual.

Pages should reflect an understanding that both internal and external audiences will be viewing the information.

School web sites must be located on Board-affiliated servers.

The Superintendent shall prepare administrative guidelines defining the standards permissible for web-site use.

The Board retains all proprietary rights related to the design of web sites and/or pages that are hosted on the Board's servers, absent written agreement to the contrary.

Students who want their class work to be displayed on the Board's web site must have written parent permission and expressly license its display without cost to the Board.

Prior written parental permission is necessary for a student to be identified by name on the Board's website.

Revised 4/15/02

7540.03 - STUDENT NETWORK AND INTERNET ACCEPTABLE USE AND SAFETY

Advances in telecommunications and other related technologies have fundamentally altered the ways in which information is accessed, communicated, and transferred in our society. Such changes are driving the need for educators to adapt their means and methods of instruction, and the way they approach student learning, to harness and utilize the vast, diverse, and unique resources available on the Internet. The Board of Education is pleased to provide Internet services to its students. The Board encourages students to utilize the Internet in order to promote educational excellence in our schools by providing them with the opportunity to develop the resource sharing, innovation, and communication skills and tools which will be essential to life and work in the 21st century. The instructional use of the Internet will be guided by the Board's policy on Instructional Materials.

The Internet is an electronic highway connecting computers and users in the District with computers and users worldwide. Access to the Internet enables students to explore thousands of libraries, databases, and bulletin boards, while exchanging messages with

people throughout the world. Access to such an incredible quantity of information and resources brings with it, however, certain unique challenges.

First, and foremost, the Board may not be able to technologically limit access to services through the Board's Internet connection to only those that have been authorized for the purpose of instruction, study and research related to the curriculum. Unlike in the past when educators and community members had the opportunity to review and screen materials to assess their appropriateness for supporting and enriching the curriculum according to adopted guidelines and reasonable selection criteria (taking into account the varied instructional needs, learning styles, abilities, and developmental levels of the students who would be exposed to them), access to the Internet, because it serves as a gateway to any publicly available file server in the world, will open classrooms and students to electronic information resources which have not been screened by educators for use by students of various ages.

The Board has implemented technology protection measures which block/filter Internet access to visual displays that are obscene, child pornography or harmful to minors. The Board utilizes software and/or hardware to monitor online activity of students to restrict access to child pornography and other material that is obscene, objectionable, inappropriate and/or harmful to minors. Nevertheless, parents/guardians are advised that a determined user may be able to gain access to services on the Internet that the Board has not authorized for educational purposes. In fact, it is impossible to guarantee students will not gain access through the Internet to information and communications that they

and/or their parents/guardians may find inappropriate, offensive, objectionable or controversial. Parents/Guardians assume risks by consenting to allow their child to participate in the use of the Internet. Parents/Guardians of minors are responsible for setting and conveying the standards that their children should follow when using the Internet. The Board supports and respects each family's right to decide whether to apply for independent student access to the Internet.

The Superintendent is directed to prepare guidelines which address students' safety and security while using e-mail, chat rooms and other forms of direct electronic communications, and prohibit disclosure of personal identification information of minors and unauthorized access (e.g., "hacking") and other unlawful activities by minors online. Building principals are responsible for providing training so that Internet users under their supervision are knowledgeable about this policy and its accompanying guidelines. The Board expects that staff members will provide guidance and instruction to students in the appropriate use of the Internet. All Internet users (and their parents if they are minors) are required to sign a written agreement to abide by the terms and conditions of this policy and its accompanying guidelines.

Students and staff members are responsible for good behavior on the Board's computers/network and the Internet just as they are in classrooms, school hallways, and other school premises and school sponsored events. Communications on the Internet are often public in nature. General school rules for behavior and communication apply. The Board does not sanction any use of the Internet that is not authorized by or conducted

strictly in compliance with this policy and its accompanying guidelines. Users who disregard this policy and its accompanying guidelines may have their use privileges suspended or revoked, and disciplinary action taken against them. Users granted access to the Internet through the Board's computers assume personal responsibility and liability, both civil and criminal, for uses of the Internet not authorized by this Board policy and its accompanying guidelines.

The Board designates all administrators as being responsible for initiating, implementing, and enforcing this policy and its accompanying guidelines as they apply to the use of the Network and the Internet for instructional purposes.

H.R. 4577, P.L. 106-554, Children's Internet Protection Act of 2000

47 U.S.C. 254(h), (1), Communications Act of 1934, as amended

20 U.S.C. 6801 et seq., Part F, Elementary and Secondary Education Act of 1965,
as amended

18 U.S.C. 2256

18 U.S.C. 1460

18 U.S.C. 2246

Adopted 4/01

Revised 4/15/02

7540.04 - STAFF NETWORK AND INTERNET ACCEPTABLE USE AND SAFETY

Advances in telecommunications and other related technologies have fundamentally altered the ways in which information is accessed, communicated, and transferred in our society. Such changes are driving the need for educators to adapt their means and methods of instruction, and the way they approach student learning, to harness and utilize the vast, diverse, and unique resources available on the Internet. The Board of Education is pleased to provide Internet service to its staff. The Board encourages staff to utilize the Internet in order to promote educational excellence in our schools by providing them with the opportunity to develop the resource sharing, innovation, and communication skills and tools which will be essential to life and work in the 21st century. The Board encourages the faculty to develop the appropriate skills necessary to effectively access, analyze, evaluate, and utilize these resources. The instructional use of the Internet will be guided by the Board's policy on Instructional Materials.

The Internet is an electronic highway connecting computers and users in the District with computers and users worldwide. Access to the Internet enables staff members to explore thousands of libraries, databases, and bulletin boards, while exchanging messages with people throughout the world. Access to such an incredible quantity of information and resources brings with it, however, certain unique challenges.

First, and foremost, the Board may not be able to technologically limit access to services through the Board's Internet connection to only those that have been authorized for the purpose of instruction, study and research related to the curriculum. Unlike in the past

when educators and community members had the opportunity to review and screen materials to assess their appropriateness for supporting and enriching the curriculum according to adopted guidelines and reasonable selection criteria (taking into account the varied instructional needs, learning styles, abilities, and developmental levels of the students who would be exposed to them), access to the Internet, because it serves as a gateway to any publicly available file server in the world, will open classrooms and students to electronic information resources which have not been screened by educators for use by students of various ages.

The Board has implemented technology protection measures which block/filter Internet access to visual displays that are obscene, child pornography or harmful to minors. The Board utilizes software and/or hardware to monitor online activity of staff members to restrict access to child pornography and other material that is obscene, objectionable, inappropriate and/or harmful to minors. The Superintendent or Technology Director may disable the technology protection measure to enable access for bona fide research or other lawful purposes.

The Superintendent is directed to prepare guidelines which address students' safety and security while using e-mail, chat rooms and other forms of direct electronic communication, and prohibit disclosure of personal identification information of minors and unauthorized access (e.g., "hacking") and other unlawful activities by minors online. Staff members are reminded that personally identifiable student information is confidential and may not be disclosed without prior written parental permission.

Building principals are responsible for providing training so that Internet users under their supervision are knowledgeable about this policy and its accompanying guidelines. The Board expects that staff members will provide guidance and instruction to students in the appropriate use of the Internet. All Internet users are required to sign a written agreement to abide by the terms and conditions of this policy and its accompanying guidelines.

Staff members are responsible for good behavior on Board's computers/network and the Internet just as they are in classrooms, school hallways, and other school premises and school sponsored events. Communications on the Internet are often public in nature. General school rules for behavior and communication apply. The Board does not sanction any use of the Internet that is not authorized by or conducted strictly in compliance with this policy and its accompanying guidelines. Users who disregard this policy and its accompanying guidelines may have their use privileges suspended or revoked, and disciplinary action taken against them. Users granted access to the Internet through the Board's computers assume personal responsibility and liability, both civil and criminal, for uses of the Internet not authorized by this policy and its accompanying guidelines. The Board designates the Superintendent and Technology Director as the administrators responsible for initiating, implementing, and enforcing this policy and its accompanying guidelines as they apply to the use of the Network and the Internet for instructional purposes.

H.R. 4577, P.L. 106-554, Children's Internet Protection Act of 2000
47 U.S.C. 254(h), (1), Communications Act of 1934, as amended

20 U.S.C. 6801 et seq., Part F, Elementary and Secondary Education Act of 1965,
as amended

18 U.S.C. 2256

18 U.S.C. 1460

18 U.S.C. 2246

Adopted 4/15/02

Appendix A
American Library Association's Guidelines for Information Literacy

Students who are information literate can:

- I. Develop effective search strategies
 1. Student determines the information requirements for the research question, problem, or issue.
 2. Student determines what category of information resource is most relevant to the information need and develops a plan to search for needed information.

- II. Locate and retrieve information sources
 1. Student correctly interprets bibliographic citations and Internet equivalents and knows how to obtain cited items.
 2. Student uses interlibrary loan, document delivery, electronic transmission, or other means to obtain material not available locally.

- III. Analyze and critically evaluate information
 1. Student analyzes and critically evaluates the results of a search for accuracy, relevance, timeliness, authority, etc.
 2. Student filters large amounts of information and distinguishes among facts, points of view, and opinion.

- IV. Organize and synthesize information
 1. Student synthesizes information from a variety of sources and organizes information for practical application.

- V. Use/apply information

1. Student applies information to critical thinking and problem-solving situations.
2. Student communicates using a variety of information technologies.
3. Student integrates information resources into academic discourse.
4. Student produces and communicates information in effective and appropriate formats.

VI. Awareness and attitude formation about information and information technology

1. Student is aware of the ethical, legal, and socio-political issues surrounding information and information technology, such as copyright and the responsibility to properly credit information sources.
2. Student appreciates that the skills gained in information competence enable lifelong learning.
3. Student is aware of the difference between information and knowledge.
4. Student is aware of the structure and dissemination channels of the global information environment.

Appendix B

District Technology Standards Kindergarten through – 5th grade

K-5 Educational Technology Skills Scope and Sequence

Curriculum Connection Ideas

District-Suggested integrated activities and units for teaching required skills

Kindergarten

Skill Area	Subject/Software Applications
Basic Operations <ul style="list-style-type: none">• Use mouse (move, click, drag)• Start and quit programs• Identify hardware components• Use toolbars• Use basic vocabulary	Integrate in subject areas Powerpoint Word Walls
Keyboarding <ul style="list-style-type: none">• Explore keyboard• Introduce proper posture	Language Arts Type to Learn Jr.
Word Processing/ Desktop Publishing <ul style="list-style-type: none">• Enter text (Type name and meaningful words)	Language Arts/ Kidpix
Paint/ Draw/ Graphics and Multimedia/ Hypermedia/ Presentation <ul style="list-style-type: none">• Select and use tools from paint program's palette• View a slide show/presentation	Social Studies Science Kidpix
<ul style="list-style-type: none">• Communications• I-Safe Internet Safety	

1st grade

Skill Area	Subject/Software Applications
Basic Operations <ul style="list-style-type: none"> • Turn computers on and off • Find and open existing files • Use new computer vocabulary 	Integrate in subject areas Powerpoint Word Wall
Keyboarding <ul style="list-style-type: none"> • Use home row with right and left hands • Use period, question mark, exclamation, delete, spacebar, shift and enter/return 	Language Arts Type to Learn Jr.
Word Processing/ Desktop Publishing <ul style="list-style-type: none"> • Highlight (select) text • Format text by changing font/size • Edit to undo and correct errors • Edit by inserting text using mouse/ cursor 	Language Arts/ Kidpix
Paint/ Draw/ Graphics and Multimedia/ Hypermedia/ Presentation <ul style="list-style-type: none"> • Draw, paint, type and write to create a product • Use options on a tool palette • Navigate a slide show/ presentation 	Social Studies Science Kidpix
Communications <ul style="list-style-type: none"> • Observe internet and OPAC use • Videostreaming • Observe and navigate websites • Identify how technology address real life problems • I-Safe Internet Safety 	Social Studies Science

2nd grade

Skill Area	Subject/ Software Applications
<p>Basic Operations</p> <ul style="list-style-type: none"> • Use “save as” • Print documents • Use new computer vocabulary • Use menus • Care of Computers 	<p>Integrate in units below Powerpoint Word Wall</p>
<p>Keyboarding</p> <ul style="list-style-type: none"> • Introduce concept of homerow • Begin to use all three rows with correct fingers 	<p>Language Arts Type to Learn, Jr.</p>
<p>Word Processing</p> <ul style="list-style-type: none"> • Edit by copying/ cutting/ pasting • Format text by changing style (bold and italic) • Center text • Add clip art • Change the page setup (portrait/ landscape) • Recognize file menu commands 	<p>Language Arts Kidpix Word Math</p>
<p>Multimedia</p> <ul style="list-style-type: none"> • Create a slide show 	<p>Science/ Social Studies Powerpoint Kidspiration Kidpix</p>
<p>Communications/ Using Online Information Resources</p> <ul style="list-style-type: none"> • Use browser for basic navigation and access bookmarked sites • Send, receive, and reply to email • Use OPAC to locate books • I-Safe Internet Safety 	<p>Language Arts/ Science/ Reading</p>

3rd grade

Skill Area	Subject / Software Applications
<p>Basic Operations</p> <ul style="list-style-type: none"> • Access files and server • Use digital camera for still images • Access and transfer files • <i>Use keyboard shortcuts</i> • Choose between exiting a program and closing a document • Use new computer vocabulary 	Integrate in units below Powerpoint Word Wall
<p>Keyboarding</p> <ul style="list-style-type: none"> • Keyboard 10wpm (80% accuracy) (guideline) • Practice consistently • Use punctuation keys • Use proper posture 	Language arts Type to Learn
<p>Word Processing / Desktop Publishing</p> <ul style="list-style-type: none"> • Use file menu – new, open, close, save, print preview, print, and exit • Use edit menu to select all • Align text • Use shading, indenting and editing • Begin to edit text by checking spelling and using thesaurus • Import graphics from other sources • Add border, colors, and bullets • Edit by using find/replace 	Language arts Social Studies Kidspiration Word
<p>Multimedia / Hypermedia / Presentation</p> <ul style="list-style-type: none"> • Create a series of cards / screens / slides with text, graphics, buttons and animation/transitions (i.e. Kid Pix, PowerPoint) 	Language Arts Powerpoint
<p>Communication / Using Online Information Resources</p> <ul style="list-style-type: none"> • Type in URL of designated address in a browser • Find and add bookmarks in a browser • Search and electronic encyclopedia by title of keyword • I-Safe Internet Safety 	Social Studies
<p>Spreadsheet</p> <ul style="list-style-type: none"> • <i>Enter data (i.e. Graph Club or Excel)</i> • <i>Graph / chart data</i> 	Science Excel

4th Grade

Skill Area	Subject / Software Applications
Basic Operations <ul style="list-style-type: none"> • Import digital pictures into documents (digital camera, scanner) • Multi-tasking • Discuss Assistive Technology • Save to Network • Use new computer vocabulary 	Integrate in units below
Keyboarding <ul style="list-style-type: none"> • Keyboard 10 wpm (85% accuracy) • Use correct hand positions 	Language Arts Type to Learn
Word Processing / Desktop Publishing <ul style="list-style-type: none"> • Use tables • <i>Format document by setting margins and tabs</i> • Use templates with publisher • Import data from other resources 	Science Language Arts Social Studies Word Publisher
Multimedia / Hypermedia / Presentation <ul style="list-style-type: none"> • Design and create non-linear stacks (i.e. Hyper Studio, PowerPoint) • Add Audio (pre-made & self-created) 	Social Studies Science Powerpoint
Communication / Using Online Information Resources <ul style="list-style-type: none"> • Access electronic periodicals and encyclopedias • Use basic telecommunication (email, blogging) • Print pages from a browser • Introduce online Bibliography generator • Begin to evaluate web sites for content and credibility • I-Safe Internet Safety 	Language arts Science Social Studies Internet
Spreadsheet <ul style="list-style-type: none"> • Sort data 	Science Social Studies Language Arts Excel

5th Grade

Skill Area	Subject / Software Application
Basic Operations <ul style="list-style-type: none"> • Use new computer vocabulary 	Integrate in units below Powerpoint Word Wall
Keyboarding <ul style="list-style-type: none"> • Keyboard 15 wpm (90% accuracy) • Use numbers (10- key pad)` 	Language Arts Type to Learn
Word Processing / Desktop Publishing <ul style="list-style-type: none"> • Format document by using headers and footers 	Language Arts Word
Multimedia / Hypermedia <ul style="list-style-type: none"> • Import graphics from the internet • Add video to projects (pending technology) 	Science Social Studies Word Powerpoint Publisher
Communications / Using Online Information Resources <ul style="list-style-type: none"> • Directory search, keyword search, and Boolean “and” searches (i.e. Yahoooligans, Ask Jeeves Junior) • Determine validity and appropriateness of sources 	Science Social Studies Language Arts
Spreadsheets <ul style="list-style-type: none"> • <i>Apply simple formulas and functions</i> 	Math Social Studies Excel
Database <ul style="list-style-type: none"> • <i>Search and sort existing databases</i> • <i>Understand the difference between records and fields</i> 	Social Studies Excel Access

Appendix C

Technology Integration Project Sample K – 4 Lesson Plans

Digital Alphabet Pictures

Grade Level: K

Michigan Standards Addressed

English Language Arts

- 1.4.0 Students will employ multiple strategies to decode words as they construct meaning.

Project Overview

A digital camera is used to photograph students posed in the shapes of alphabet letters. Photos can be used for classroom display, review games, an alphabet book, or a slide show presentation.

This project could also be adapted to study simple math concepts like shapes and numbers.

Technology Requirements

Digital Camera and photo editing software

Printer

Across the Country Weather Study

Grade Level: 1

Michigan Standards Addressed

Science

- 1.1.1 Generate reasonable questions about the world based on observation
- 1.1.5 Develop strategies and skills for information gathering and problem solving
- 1.1.6 Construct charts and graphs and prepare summaries of observations
- 2.1.3 Describe ways in which technology is used in everyday life
- 4.1.2 Measure temperature.
- 5.2.1 Describe how water exists on the Earth in 3 states.
- 5.2.2 Trace the path that rain water follows after it falls.

5.3.0 All students will investigate and describe what makes up weather and how it changes from day to day, from season to season and over long periods of time; explain what causes different kinds of weather; and analyze the relationships between human activities and the atmosphere

Project Overview

A first grade class teams up with a class in another part of the country to share weather data about their perspective regions. Students would develop a deeper understanding of weather patterns, changes, and other conditions by collecting data in their classroom, assessing it, and even creating authentic video to share with their partner class. Activities could include daily observation logs including digital photographs along with temperature and precipitation graphing.

Technology Requirements

Email access

Digital camera

Spreadsheet/ Graphing software

Student Storybooks

Grade Level: 2

Michigan Standards Addressed

English Language Arts

1.2 Develop and apply both individual and shared standards based on exemplary works created for varied purposes and contexts.

2.2 Recognize that authors make choices as they write to convey meaning and influence an audience. Examples include word selection, sentence variety, and genre.

2.3 Plan and draft texts, and revise and edit in response to suggestions expressed by others about such aspects as ideas, organization, style, and word choice.

2.1. Write with developing fluency for multiple purposes to produce a variety of texts, such as stories, journals, learning logs, directions, and letters.

Project Overview

Using all stages of the writing process, including peer conferencing, students will write a story and use that story to publish a book using KidPix as a publication tool. Once

the book is created, students will narrate it and import the narration into their slideshow. These stories will be shared at a writers' fair. While all students will have a hard copy of this book, an electronic version will be published on the school server where younger students can read/hear the stories that were created for them and they can post their questions and responses to the stories. This way a dialogue can develop between the writers and audience reinforcing the idea that writers write for real readers and writers revise their writing to meet their reader's needs.

Technology Requirements

KidPix

Traveling Our United States

Grade Level: 3

Michigan Standards Addressed

Social Studies

2.1 All students will describe, compare, and explain the locations and characteristics of places, cultures, and settlements.

2.3 All students will describe, compare, and explain the locations and characteristics of economic activities, trade, political activities, migration, information flow, and the interrelationships among them.

2.4 All students will describe and compare characteristics of ecosystems, states, regions, countries, major world regions, and patterns and explain the processes that created them.

Project Overview

Students will create an electronic portfolio of imaginary visits to different regions of the United States. This idea comes from a unit plan for the Great Lakes states that could be adapted for any region. Internet research could be conducted via a specifically designed web quest or through isolated site visits during computer time. The scrapbook requirements would be determined by the teacher but could include the following:

- A map labeled with states and capitals in the region that lists the distances in a trip connecting all capitals (use of mapping Internet site)

- A chart or spreadsheet that outlines the resources of a region (Internet research and Excel)
- A menu featuring foods grown or manufactured in the region (Internet research and Microsoft Publisher)
- A brochure that highlights travel destinations or influential people of the region (Internet Research and Microsoft Publisher)
- Illustrations of significant landforms (Kidpix)
- Travel Journals that require students to reflect on the connections gleaned from research and activities. For example: Students could discuss the connection between available transportation and resources in a region or on historical events and present-day economies. (Microsoft Word)
- A videotaped commercial for the region. (video camera)

Technology Requirements

Listed above

Native American Web Quest

Grade Level: 4

Michigan Standards Addressed

Social Studies

1.2.1 Summarize the sequence of key events in stories describing life from the past in their local community, the state of Michigan, and other parts of the United States.

1.2.2 Use narratives and graphic data to compare the past of their local community, the state of Michigan and other parts of the United States with present day life in those places.

2.1.3 Locate and describe the major places, cultures, and communities of the nation and compare their characteristics.

5.1.1 Locate information about local, state and national communities using a variety of traditional sources, electronic technologies, and direct observations.

Project Overview

Students use a GenerationYes!® created web quest to enhance their classroom study of Native Americans in Michigan.

Technology Requirements

Web quests can be created using Microsoft Word or Microsoft FrontPage along with Internet access. A web quest can be loaded on a shared school or District drive without ever being uploaded to the Internet.

Appendix D

Resources for Best Practices of Technology Integration

Berrien County Intermediate School District Best Practices of Technology Integration

<http://www.remc11.k12.mi.us/bstpract/>

Instructional Technology Across the Curriculum (ITAC)

<http://cdp.mde.state.mi.us/Technology/ITAC/>

Michigan Curriculum Framework

<http://cdp.mde.state.mi.us/mcf/>

Michigan Department of Education Technology Content Standards and Benchmarks

<http://cdp.mde.state.mi.us/mcf/ContentStandards/Technology/default.html>

Michigan Teacher Network

<http://mtn.merit.edu/index.html>

What Works Clearinghouse

<http://www.w-w-c.org>

Appendix E

National Educational Technology Standards for Teachers

I. Technology Operations and Concepts

Teachers demonstrate a sound understanding of technology operations and concepts.

Teachers:

- A. Demonstrate introductory knowledge, skills, and understanding of concepts related to technology (as described in the ISTE National Education [Technology Standards for Students](#)).
- B. Demonstrate continual growth in technology knowledge and skills to stay abreast of current and emerging technologies.

II. Planning and Designing Learning Environments and Experiences

Teachers plan and design effective learning environments and experiences supported by technology. Teachers:

- A. Design developmentally appropriate learning opportunities that apply technology-enhanced instructional strategies to support the diverse needs of learners.
- B. Apply current research on teaching and learning with technology when planning learning environments and experiences.
- C. Identify and locate technology resources and evaluate them for accuracy and suitability.
- D. Plan for the management of technology resources within the context of learning activities.
- E. Plan strategies to manage student learning in a technology-enhanced environment.

III. Teaching, Learning, and the Curriculum

Teachers implement curriculum plans, that include methods and strategies for applying technology to maximize student learning. Teachers:

- A. Facilitate technology-enhanced experiences that address content standards and student technology standards.
- B. Use technology to support learner-centered strategies that address the diverse needs of students.
- C. Apply technology to develop students' higher order skills and creativity.
- D. Manage student-learning activities in a technology-enhanced environment.

IV. Assessment and Evaluation

Teachers apply technology to facilitate a variety of effective assessment and evaluation strategies. Teachers:

- A. Apply technology in assessing student learning of subject matter using a variety of assessment techniques.
- B. Use technology resources to collect and analyze data, interpret results, and communicate findings to improve instructional practice and maximize student learning.
- C. Apply multiple methods of evaluation to determine students' appropriate use of technology resources for learning, communication, and productivity.

V. Productivity and Professional Practice

Teachers use technology to enhance their productivity and professional practice.

Teachers:

- A. Use technology resources to engage in ongoing professional development and lifelong learning.
- B. Continually evaluate and reflect on professional practice to make informed decisions regarding the use of technology in support of student learning.

- C. Apply technology to increase productivity.
- D. Use technology to communicate and collaborate with peers, parents, and the larger community in order to nurture student learning.

VI. Social, Ethical, Legal, and Human Issues

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

- A. Model and teach legal and ethical practice related to technology use.
- B. Apply technology resources to enable and empower learners with diverse backgrounds, characteristics, and abilities.
- C. Identify and use technology resources that affirm diversity.
- D. Promote safe and healthy use of technology resources.
- E. Facilitate equitable access to technology resources for all students.

Appendix F

National Educational Technology Standards for Administrators

I. Leadership and Vision

Educational leaders inspire a shared vision for comprehensive integration of technology and foster an environment and culture conducive to the realization of that vision.

Educational leaders:

- A. Facilitate the shared development by all stakeholders of a vision for technology use and widely communicate that vision.
- B. Maintain an inclusive and cohesive process to develop, implement, and monitor a dynamic, long-range, and systemic technology plan to achieve the vision.
- C. Foster and nurture a culture of responsible risk-taking and advocate policies promoting continuous innovation with technology.
- D. Use data in making leadership decisions.
- E. Advocate for research-based effective practices in use of technology.
- F. Advocate on the state and national levels for policies, programs, and funding opportunities that support implementation of the district technology plan.

II. Learning and Teaching

Educational leaders ensure that curricular design, instructional strategies, and learning environments integrate appropriate technologies to maximize learning and teaching.

Educational leaders:

- A. Identify, use, evaluate, and promote appropriate technologies to enhance and support instruction and standards-based curriculum leading to high levels of student achievement.

- B. Facilitate and support collaborative technology-enriched learning environments conducive to innovation for improved learning.
- C. Provide for learner-centered environments that use technology to meet the individual and diverse needs of learners.
- D. Facilitate the use of technologies to support and enhance instructional methods that develop higher-level thinking, decision-making, and problem-solving skills.
- E. Provide for and ensure that faculty and staff take advantage of quality professional learning opportunities for improved learning and teaching with technology.

III. Productivity and Professional Practice

Educational leaders apply technology to enhance their professional practice and to increase their own productivity and that of others. Educational leaders:

- A. Model the routine, intentional, and effective use of technology.
- B. Employ technology for communication and collaboration among colleagues, staff, parents, students, and the larger community.
- C. Create and participate in learning communities that stimulate, nurture, and support faculty and staff in using technology for improved productivity.
- D. Engage in sustained, job-related professional learning using technology resources.
- E. Maintain awareness of emerging technologies and their potential uses in education.
- F. Use technology to advance organizational improvement.

IV. Support, Management, and Operations

Educational leaders ensure the integration of technology to support productive systems for learning and administration. Educational leaders:

- A. Develop, implement, and monitor policies and guidelines to ensure compatibility of technologies.
- B. Implement and use integrated technology-based management and operations systems.
- C. Allocate financial and human resources to ensure complete and sustained implementation of the technology plan.
- D. Integrate strategic plans, technology plans, and other improvement plans and policies to align efforts and leverage resources.
- E. Implement procedures to drive continuous improvement of technology systems and to support technology replacement cycles.

V. Assessment and Evaluation

Educational leaders use technology to plan and implement comprehensive systems of effective assessment and evaluation. Educational leaders:

- A. Use multiple methods to assess and evaluate appropriate uses of technology resources for learning, communication, and productivity.
- B. Use technology to collect and analyze data, interpret results, and communicate findings to improve instructional practice and student learning.
- C. Assess staff knowledge, skills, and performance in using technology and use results to facilitate quality professional development and to inform personnel decisions.
- D. Use technology to assess, evaluate, and manage administrative and operational systems.

VI. Social, Legal, and Ethical Issues

Educational leaders understand the social, legal, and ethical issues related to technology and model responsible decision-making related to these issues. Educational leaders:

- A. Ensure equity of access to technology resources that enable and empower all learners and educators.
- B. Identify, communicate, model, and enforce social, legal, and ethical practices to promote responsible use of technology.
- C. Promote and enforce privacy, security, and online safety related to the use of technology.
- D. Promote and enforce environmentally safe and healthy practices in the use of technology.
- E. Participate in the development of policies that clearly enforce copyright law and assign ownership of intellectual property developed with district resources.