

WARREN WOODS PUBLIC SCHOOLS
Technology Plan
July 1, 2012 – June 30, 2015



Warren Woods Public Schools
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DISTRICT TECHNOLOGY PLAN TEAM

Name	School
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Todd Bloch	Warren Woods Middle School Teacher
Neil Cassabon	Business Manager
Tom Dembinski	Warren Woods-Tower High School Teacher
Kristine Griffor	Director of Curriculum
Kevin Hustek	Technology Technician
Melissa Majeski	Enterprise High School Teacher
Brian Marchand	Warren Woods-Tower High School Teacher
Jennifer McFarlane	Warren Woods Middle School Principal
Justin Michalak	Director of Special Education
Mary Sarcheck	Warren Woods-Tower High School Teacher
Scott Sienkiewicz	Technology Technician
Marie Zuk	Convergent Technology Partners Consultant

INTRODUCTION

District Profile

Warren Woods is a small (approximately 6 square miles) suburban school District located in the southeast portion of Macomb County. The District represents a middle class community which is embracing a more ethnically and economically diverse population. The District consists of one class B high school, one middle school, three elementary schools and one alternative high school.

Warren Wood Education Center	12900 Frazho	Warren, MI 48089
Warren Woods Tower High School	27900 Bunert	Warren, MI 48088
Enterprise Alternative High School	28600 Suburban	Warren, MI 48088
Warren Woods Middle School	13400 Twelve Mile Rd.	Warren, MI 48088
Briarwood Elementary	14100 Leisure	Warren, MI 48088
Pinewood Elementary	14411 Bade	Warren, MI 48088
Westwood Elementary	11999 Martin	Warren, MI 48093

In 2011-12, the K-12 enrollment is 3426, with 54% qualifying for the Free and Reduced lunch program, and 73% erate discount. There are a total of 450 staff members, including 207 teachers and 21 administrators. The District has achieved AYP.

History

Warren Woods has been a part of the “technology revolution” since 1988 when a Technology Committee was formed to develop a plan and determine the direction we were to take to bring technology to each classroom. The committee had representatives from all levels and central office.

The first plan that was developed established a strong foundation. Much of it is still a part of the backbone of the current plan. The committee recommended a single platform that could be networked and had the capability of file and application sharing. It was recommended that the labs be equipped first and classrooms later so there would be more student access. The committee recommended the development of local area network (LAN) first and a District wide area network after the technology was perfected.

The District began with a half-time administrator and a half-time technician. The department grew to a full time administrator, two technicians and a half-time administrative assistant to support the management and instructional infrastructure, hardware and software, plus an instructional technologist for curriculum integration and four site resource technicians that assist in the labs. However due to budget cuts the last several years, the department has shrunk back to two full time technicians with support from the Business Office.

District Mission Statement

The Warren Woods Public Schools are dedicated to maintaining continuous student achievement within a caring environment that provides for individual excellence for all.

District Vision Statement

Warren Woods Public Schools: Together Make It Happen (see logo on first page of this plan).

District Technology Vision Statement

Warren Wood Public Schools will utilize technology to increase student achievement and communicate with parents.

District Technology Mission Statement

Warren Woods Public Schools is committed to increasing student achievement through embedding technology across the curriculum, providing technology in the workplace, and communicating with the community through technology.

DISTRICT TECHNOLOGY GOALS

Goal 1:

Integrate technology into the curriculum and instruction.

Goal 2:

Provide support and training for staff as they implement the use of technology.

Goal 3:

Provide access to technology for students and staff to enhance learning and communications.

Goal 4:

Utilize technology to better communicate with the community.

Goal 1:

Integrate technology into the curriculum and instruction

Objective A: Integrating the use of technology in the District adopted K-8 curriculum aligned with METS and 9-12 curriculum aligned with Content Standards and Benchmarks (and the 9-12 grade METS when available).

The guidelines from the Michigan Educational Technology Plan and state standardized testing requirements guide us in evaluation, implementation and improvement for an integrated K-12 curriculum at Warren Woods Public Schools.

CURRICULUM INTEGRATION

- Demonstrate and provide curriculum integration materials for staff; such as Curriculum Crafter, Data Director, NWEA, Carnegie Learning, Khan Academy, Achieve 3000, Success Maker, Premier Literacy, Various Assistive Technology for students with disabilities
- Sharing effective practices and innovation in technology integration to facilitate alignment of curriculum assessment and instruction through the District Student Achievement Team
- Create and review common assessments throughout the District through the WWPS PLC Teams
- Professional development opportunities for continued use of technologies providing data analysis on an on-going basis through Data Director

STUDENT ACHIEVEMENT

- Common assessments will be utilized to measure alignment of curriculum with state standards
- Demonstrate specific technologies that improve student achievement related to curriculum area and grade level

TECHNOLOGY DELIVERY

- Data warehousing (Data Director) is used to analyze common assessment data to align curriculum with the Michigan Merit Core Curriculum, Grade Level Content Expectations/Common Core Standards and local curriculum standards
- Curriculum alignment software (Curriculum Crafter) will be utilized to help align curriculum and import existing common assessment to provide teaching tools to align to state standards

COLLABORATION

- Encourage the development of “in-house” experts of software and hardware tools to analyze data
- Work with the Intermediate School District to provide information or training as necessary
- Publish documents that assist in understanding technology tools that are available to align curriculum and assessments (i.e. List of WWPS tools for staff use in one area.)
- Provide opportunities in Professional Learning Communities to analyze information from common and state assessments

Objective B: Provide technology to enhance learning and communication equitably to community, parents, staff and students.

CURRICULUM INTEGRATION

- Increased Internet Access for all web based applications/activities including online courses
- Increased speed, capacity and availability of content during instructional time using video streaming
- Teachers will investigate and demonstrate the use of technology resources to support instructional strategies that address different learning styles of students (i.e. Universal Design for Learning)
- Teachers will investigate and demonstrate the use of technology resources to support instructional strategies that incorporate cooperative learning activities (i.e. Universal Design for Learning, ASK Program)
- Educators will access curriculum materials from a variety of sources including the Internet, and incorporate them into their presentation of curriculum

STUDENT ACHIEVEMENT

- Students will use technology to access and analyze information from a variety of sources
- Students will use the various resources to access text and video information for individual and group research projects
- Students will have equal access to instructional uses of the computers within their respective buildings

Objective C: Providing an integrated technology curriculum through all subject areas in alignment with state and national standards for all students.

CURRICULUM INTEGRATION

- The METS checklist is used to review alignment of curriculum
- Professional development options are provided to assist in technology integration to supplement curriculum
- K-12 Discovery Education provides teachers another curriculum presentation option
- The high school Vocational Education Curriculum provides students options to develop real-world technical skills

STUDENT ACHIEVEMENT

- All 8th grade students participate in an 8th grade technology literacy assessment for technology, yearly
- Technology literacy is used to help with writing and math problem solving skills

TECHNOLOGY DELIVERY

- Career Cruising (high school & middle school) is an on-line vocational assessment to explore career pathways
- Access to technologies both BASIC and ADVANCED will be made available to classrooms as required by curriculum
- Data Director will be used as the District's data warehousing package in order to analyze data and the impact of hardware and/or software provided
- Curriculum Crafter will be used to assist in aligning curriculum and common assessments

ON-LINE COURSES:

- Blackboard and/or teacher created websites allows student and teacher to communicate outside the classroom through email, assignments, instructions provided and evaluation
- On-line courses provide high school students the opportunity to take advanced courses or make up credit
- E2020 is offered for basic skill recovery and credit recovery
- Power Parent is provided to parents and students from the school web page that allows communication regarding grades, attendance, pay schools and scheduling

EQUITY:

- On-site Adult Education program
- Alternative education students attend Enterprise High School
- WWPS will utilize the services of the ISD for assistive technologies

Michigan Educational Technology Standards (METS) 2009 – PK-8 Checklist by Grade Levels

O = Teacher Observation	P = Portfolio Evidence	A = Formal Assessment	C = Technology Literacy Class										
Grades PK through 2 –Technology Standards and Expectations: prior to completing Grade 2													
PK-2.CI Creativity and Innovation - By the end of Grade 2 each student will:			PK	K	1	2							
1. use a variety of digital tools (e.g., word processors, drawing tools, simulations, presentation software, graphical organizers) to learn, create, and convey original ideas or illustrate concepts													
PK-2.CC. Communication and Collaboration - By the end of Grade 2 each student will:			PK	K	1	2							
1. work together when using digital tools (e.g., word processor, drawing, presentation software) to convey ideas or illustrate simple concepts relating to a specified project													
2. use a variety of developmentally appropriate digital tools (e.g., word processors, paint programs) to communicate ideas to classmates/families/ others													
PK-2.RI. Research and Information Fluency - By the end of Grade 2 each student will:			PK	K	1	2							
1. interact with internet based resources													
2. use digital resources (e.g., dictionaries, encyclopedias, graphs, graphical organizers) to locate and interpret information relating to a specific curricular topic, with assistance from teachers, school library media specialists, parents, or student partners													
PK-2.CT. Critical Thinking, Problem Solving, and Decision Making - By the end of Grade 2 each student will:			PK	K	1	2							
1. explain ways that technology can be used to solve problems (e.g., cell phones, traffic lights, GPS units)													
2. use digital resources (e.g., dictionaries, encyclopedias, search engines, web sites) to solve developmentally appropriate problems, with assistance from teachers, parents, school media specialists, or student partners													
PK-2.DC. Digital Citizenship - By the end of Grade 2 each student will:			PK	K	1	2							
1. describe appropriate and inappropriate uses of technology (e.g., computers, internet/e-mail/cell phones) and describe consequences of inappropriate uses													
2. know the Michigan Cyber Safety Initiative's three rules (Keep Safe, Keep Away, Keep Telling)													
3. identify personal information that should not be shared on the Internet (e.g. name, address, phone number)													
4. know to inform a trusted adult if they receive or view an online communication which makes them feel uncomfortable, or if someone whom they don't know is trying to communicate with them or asking for personal information													
PK-2.TC. Technology Operations and Concepts - By the end of Grade 2 each student will:			PK	K	1	2							
1. discuss advantages and disadvantages of using technology													
2. be able to use basic menu commands to perform common operations (e.g., open, close, save, print)													
3. recognize, name, and label the major hardware components in a computer system (e.g., computer, monitor, keyboard, mouse, printer)													
4. discuss the basic care for computer hardware and various media types (e.g., CDs, DVDs, videotapes)													
5. use developmentally appropriate and accurate terminology about technology													
6. understand that technology is a tool to help him/her complete a task, and is a source of information, learning, and entertainment													
7. demonstrate the ability to navigate in virtual environments (e.g., electronic books, games, simulation software, web sites)													

Michigan Educational Technology Standards (METS) 2009 – 3rd to 5th Checklist

O=Teacher Observation	P=Portfolio Evidence	A=Formal Assessment	C=Technology Lit. Class
Grades 3 through 5 – Technology Standards and Expectations: prior to completing Grade 5			
3-5.CI. Creativity and Innovation - By the end of Grade 5 each student will:			
1. produce a media-rich digital project aligned to state curriculum standards (e.g., fable, folk tale, mystery, tall tale, historical fiction)			
2. use a variety of technology tools and applications to demonstrate their creativity by creating or modifying works of art, music, movies, or presentations			
3. participate in discussions about technologies (past, present, and future) to understand these developments are the result of human creativity			
3-5.CC. Communication and Collaboration - By the end of Grade 5 each student will:			
1. use digital communication tools (e.g., e-mail, wikis, blogs, IM, chat rooms, videoconferencing, Moodle, Blackboard) and online resources for group learning projects			
2. identify how different software applications may be used to share similar information, based on the intended audience (e.g., presentations for classmates, newsletters for parents)			
3. use a variety of media and formats to create and edit products (e.g., presentations, newsletters, brochures, web pages) to communicate information and ideas to various audiences			
3-5.RI. Research and Information Fluency - By the end of Grade 5 each student will:			
1. identify search strategies for locating information with support, from teachers and school library media specialists			
2. use digital tools to find, organize, analyze, synthesize, and evaluate information			
3. understand and discuss that web sites and digital resources may contain inaccurate or biased information			
4. understand that using information from a single internet source might result in the reporting of erroneous facts and that multiple sources should always be researched			
3-5.CT. Critical Thinking, Problem Solving, and Decision Making - By the end of Grade 5 each student will:			
1. use digital resources to access information that can assist them in making informed decisions about everyday matters (e.g., which movie to see, which product to purchase)			
2. use information and communication technology tools (e.g., calculators, probes, videos, DVDs, educational software) to collect, organize, and evaluate information to assist with solving problems			
3. use digital resources to identify and investigate a state, national, or global issue (e.g., global warming, economy, environment)			

3-5.DC. Digital Citizenship - By the end of Grade 5 each student will:					3	4	5				
1. discuss scenarios involving acceptable and unacceptable uses of technology (e.g., file-sharing, social networking, text messaging, cyber bullying, plagiarism)											
2. recognize issues involving ethical use of information (e.g., copyright adherence, source citation)											
3. describe precautions surrounding personal safety that should be taken when online											
4. identify the types of personal information that should not be given out on the Internet (name, address, phone number, picture, school name)											
3-5.TC. Technology Operations and Concepts - By the end of Grade 5 each student will:					3	4	5				
1. use basic input and output devices (e.g., printers, scanners, digital cameras, video recorders, projectors)											
2. describe ways technology has changed life at school and at home											
3. understand and discuss how assistive technologies can benefit all individuals											
4. demonstrate proper care in the use of computer hardware, software, peripherals, and storage media											
5. know how to exchange files with other students using technology (e.g., network file sharing, flash drives)											

Michigan Educational Technology Standards (METS)																
2009 –6 th to 8 th Checklist																
O = Teacher Observation	P = Portfolio Evidence				A = Formal Assessment				C = Technology Literacy Class							
Grades 6 through 8 – Technology Standards and Expectations: prior to completing Grade 8																
6-8.CI. Creativity and Innovation – By the end of Grade 8 each student will:													6	7	8	
1. apply common software features (e.g., spellchecker, thesaurus, formulas, charts, graphics, sounds) to enhance communication with an audience and to support creativity																
2. create an original project (e.g., presentation, web page, newsletter, information brochure) using a variety of media (e.g., animations, graphs, charts, audio, graphics, video) to present content information to an audience																
3. illustrate a content-related concept using a model, simulation, or concept-mapping software																
6-8.CC. Communication and Collaboration – By the end of Grade 8 each student will:														6	7	8
1. use digital resources (e.g., discussion groups, blogs, podcasts, videoconferences, Moodle, Blackboard) to collaborate with peers, experts, and other audiences																
2. use collaborative digital tools to explore common curriculum content with learners from other cultures																
3. identify effective uses of technology to support communication with peers, family, or school personnel																

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Michigan Educational Technology Standards (METS) 2009 –

9th to 12th Checklist

O = Teacher Observation	P = Portfolio Evidence	A = Formal Assessment	C = Technology Literacy Class
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Grades 9 through 12 – Technology Standards and Expectations: prior to completing grade 12

9-12.CI. Creativity and Innovation – By the end of Grade 12 each student will:	9	10	11	12
1. apply advanced software features (e.g. built-in thesaurus, templates, styles) to redesign the appearance of word processing documents, spreadsheets, and presentations				
2. create a web page (e.g., Dreamweaver, iGoogle, Kompozer)				
3. use a variety of media and formats to design, develop, publish, and present projects (e.g., newsletters, web sites, presentations, photo galleries)				
9-12.CC. Communication and Collaboration - By the end of Grade 12 each student will:	9	10	11	12
1. identify various collaboration technologies and describe their use (e.g., desktop conferencing, listserv, blog, wiki)				
2. use available technologies (e.g., desktop conferencing, e-mail, videoconferencing, instant messaging) to communicate with others on a class assignment or project				
3. collaborate in content-related projects that integrate a variety of media (e.g., print, audio, video, graphic, simulations, and models)				
4. plan and implement a collaborative project using telecommunications tools (e.g., ePals, discussion boards, online groups, groupware, interactive web sites, videoconferencing)				
5. describe the potential risks and dangers associated with online communications				
6. use technology tools for managing and communicating personal information (e.g., finances, contact information, schedules, purchases, correspondence)				
9-12.RI. Research and Information Fluency – By the end of Grade 12 each student will:	9	10	11	12
1. develop a plan to gather information using various research strategies (e.g., interviews, questionnaires, experiments, online surveys)				

2. identify, evaluate, and select appropriate online sources to answer content related questions				
3. demonstrate the ability to use library and online databases for accessing information (e. g. MEL, Proquest, Infosource, United Streaming)				
4. distinguish between fact, opinion, point of view, and inference				
5. evaluate information found in selected online sources on the basis of accuracy and validity				
6. evaluate resources for stereotyping, prejudice, and misrepresentation				
7. understand that using information from a single internet source might result in the reporting of erroneous facts and that multiple sources must always be researched				
8. research examples of inappropriate use of technologies and participate in related classroom activities (e.g., debates, reports, mock trials, presentations)				

9-12.CT. Critical Thinking, Problem Solving, and Decision Making - By the end of Grade 12 each student will:	9	10	11	12
1. use digital resources (e.g., educational software, simulations, models) for problem solving and independent learning				
2. analyze the capabilities and limitations of digital resources and evaluate their potential to address personal, social, lifelong learning, and career needs				
3. devise a research question or hypothesis using information and communication technology resources, analyze the findings to make a decision based on the findings, and report the results				
9-12.DC. Digital Citizenship – By the end of Grade 12 each student will:	9	10	11	12
1. identify legal and ethical issues related to the use of information and communication technologies (e.g., properly selecting, acquiring, and citing resources)				
2. discuss possible long-range effects of unethical uses of technology (e.g., virus spreading, file pirating, hacking) on cultures and society				
3. discuss and demonstrate proper netiquette in online communications				
4. identify ways that individuals can protect their technology systems from unethical or unscrupulous users				
5. create appropriate citations for resources when presenting research findings				
6. discuss and adhere to fair use policies and copyright guidelines				
9-12.TC. Technology Operations and Concepts - By the end of Grade 12 each student will:	9	10	11	12
1. complete at least one online credit, or non-credit, course or online learning experience				
2. use an online tutorial and discuss the benefits and disadvantages of this method of learning				
3. explore career opportunities, especially those related to science, technology, engineering, and mathematics and identify their related technology skill requirements				
4. describe uses of various existing or emerging technology resources (e.g., podcasting, webcasting, videoconferencing, online file sharing, global positioning software)				
5. identify an example of an assistive technology and describe its purpose and use				

6. participate in a virtual environment as a strategy to build 21st century learning skills				
7. assess and solve hardware and software problems by using online help or other user documentation				
8. explain the differences between freeware, shareware, open source, and commercial software				
9. participate in experiences associated with technology-related careers				
10. identify common graphic, audio, and video file formats (e.g., jpeg, gif, bmp, mpeg, wav, wmv, mp3, flv, avi, pdf)				
11. understand and discuss how assistive technologies can benefit all individuals				
12. demonstrate how to import/export text, graphics, or audio files				
13. proofread and edit a document using an application's spelling and grammar checking functions				

Goal 2:

Provide support and training for staff as they implement the use of technology

CURRICULUM INTEGRATION

- Demonstrate and model the use of available technologies for staff
- Provide formal and informal training opportunities where teachers plan the use of technology to augment the curriculum and classroom practices
- Assist teachers as they create lessons that integrate technology into critical thinking and problem solving activities (i.e. SMART Board training)
- Support them in the use of technology with all students regardless of past experience or individual abilities
- Ensure specific Data Director Reports are utilized by all staff

STUDENT ACHIEVEMENT

- Demonstrate specific technologies that improve student achievement related to curriculum area and grade level
- Provide training on specific technologies related to curriculum area and grade level
- Support teachers as they use these specific technologies to improve student achievement

RESOURCES

- Training in collaboration with Macomb Intermediate School District for staff to enhance skills and develop projects for classroom integration. Examples include Data Director, UDL, 21 Things for Teachers and Administrators, E3T.
- Administrative and teacher participation in Professional Learning Communities
- Meet the Michigan Technology Standards for teachers and administrators
- Attendance at conferences for specific subject area and technology to share with staff members in building
- Attendance at ISD meetings and trainings
- Data Director training provided to District or building specific training
- Curriculum Crafter training opportunities provided on an annual basis
- Utilizing Macomb ISD instructional technology department

Goal 3:
Provide access to technology for students and staff to enhance learning and communications.

INFRASTRUCTURE NEEDS/TECHNICAL SPECIFICATIONS & DESIGN

The District maintains a five year replacement cycle for primary student and staff PCs. Server and other infrastructure equipment are evaluated annually for capacity and functionality to the Districts' goals. The technology infrastructure and equipment is maintained by the direction of Business Manager overseeing two Technology Network Administrators/Technicians. Day to day technology needs are handled using the SchoolDude electronic work order system. Additional resources are provided by the Macomb Intermediate School District and contracting services when needed.

It is the Districts goal to have all software evaluated and processed based on the compatibility with our existing hardware and software systems. All of these purchases are based on the alignment with the goals and structure for the curriculum standards by Federal, State, Local and District levels.

The decisions made by the technology department are steered by the designed technology plan that has been constructed by the Technology Department, Committee, and support from the Board of Education. These decisions are also monitored and guided based on the yearly technology audits that are performed utilizing industry standards.

The following subsections will depict our District, typical building, and typical classroom technology infrastructure.

District Level

- Each building maintains a minimum of one 1-Gigabit (GB) fiber optic link connecting the buildings Local Area Network (LAN) back to the Warren Woods Wide Area Network (WAN) which is terminated at Warren Woods-Tower High School (MDF).
 - By the start of the school year 2012-2013, there will be a 10 GB fiber optic link connecting all educational building LANs back to the WAN.
 - See infrastructure diagram 11.1
- Internet traffic is handled using internal DNS servers, which route the traffic through a Cisco Firewall (ASA) which is linked to the Macomb Intermediate School District (MISD). The MISD provides the Internet proxy web filtering for the end point devices.
 - The MISD is linked to the WAN via a dedicated fiber optic link.
 - The MISD provides an additional layer of filtering with Cisco, Barracuda, and McAfee Hardware Appliances
- Servers are in place to centrally house and distribute data, applications, and printing services. Each server has a Sophos AntiVirus agent in place to protect the operational integrity of the systems.
- Centralized data is additionally protected by utilizing two layers of backup. The primary being hard disk drive and the secondary copy being placed on data tape.

- Voice traffic originates and exits from a Toshiba PBX via Paetech PRI lines, providing 48 channels for voice communication that is housed in the MDF: See infrastructure diagram
- The voice system includes call accounting, voice mail, and enhanced 911 (E911). Each building has a sub PBX that is connected via the WAN using a dedicated fiber optic link.

Building Level

- Each building is wired to form an internal LAN that communicates back to the WAN using Cisco networking equipment.
 - The LAN consists of a distribution center, which uses a minimum of one 1 GB fiber optic link to connect each sub distribution closet (if applicable). The LAN distribution center connects back to the WAN with a minimum of one 1GB fiber optic link (10 GB by the start of the school year 2012-2013).
 - A local server allows secure access, and houses and distributes local data, applications, and printing services.
 - From 2005 to current, most locations have been rewired using CAT6 Ethernet cabling and RG6 video cabling
- Each building is equipped with at least one computer lab for student use.
 - Each lab is networked using Cisco networking equipment.
 - Wireless devices (laptops and/or netbooks) are available in mobile carts at both the elementary and secondary levels.
 - Wireless access is limited to the carts and select physical locations.
 - Expansions of physical wireless locations are evaluated in line current and future needs as supported by financial means.
 - Many of the computer labs have ceiling mounted projectors.
- Each library has ceiling mounted presentation equipment available
- The District has established Distance Learning to provide access to virtual learning from around the world as permitted within the curriculum.
 - Via direct link or bridged through the MISD
 - Warren Woods Tower-High School has a dedicated distance learning room that is available for checkout using the SchoolDude system
 - All other locations are provided with access to portable distance learning equipment upon request using the SchoolDude system
- Each building purchases and retains additional technology resources such as digital cameras, video cameras, and other input devices outside of what the technology department has provided and / or maintains.
- Each room has a digital telephone
 - Telephones connect back to the local building PBX via copper
 - The local PBX connects back to the primary PBX over a dedicated fiber optic link
- Public Address system (paging system)
 - Warren Woods-Tower High School and Middle School use the Toshiba phone system to interface with the paging system to make announcements
 - Elementary schools utilize a stand-alone paging system handset to make announcements
 - Enterprise High School utilizes the speaker on the internal phone system to make announcements

- Video surveillance equipment is installed for the safety of our students, staff, and assets.
 - The monitoring of this equipment is controlled and performed by building level administration and higher.
 - Retention of surveillance video data is held for 30 days before being overwritten

Office/Classroom Level

- Desktop computers are typically upgraded on a five-year cycle based on needs, current technology, and / or other requirements.
- Each office and classroom has a networked computer for instructional and administrative tasks (in some circumstances the computer may be a non-networked standalone device).
- Each office and classroom has a phone that includes unified voice mail. Instructional, administrative, and support staff have email accounts. These systems better enhance instructional, administrative, and teacher-parent communications along with providing emergency and safety communication.
- Each office and classroom that has a networked computer(s) or other networked equipment is (are) connected by way of Cisco networking switches to the LAN.
- Each classroom and various other locations have audio / visual resources to support the instructional process. The following are typical configurations found in these locations.
 - TV with capability to show computer screen and play DVD media.
 - Projector (mounted or on a cart) connected to either a computer or a standalone device such as a document camera.
 - Interactive White Board (mounted or on a cart)
 - Document camera
 - Sound reinforcement system
 - Interactive response system
- Using a combination of fiber optic and copper wire, each office and classroom has been wired to provide network and Internet access.
 - In collaboration with the Macomb Intermediate School District (MISD) fiber has links Warren Woods to the Internet.
 - Our computers systems and servers are protected by Sophos AntiVirus. The network is firewalled internally and by the MISD. The MISD provides separate Internet filtering for students and staff complying with local, state, and federal guidelines.

Technology Staff:

The District Technology staff consists of two District technicians who are supplemented as needed and as projects arise with contracted services from outside technology professionals/vendors. Technology staff report to the Business Manager and are supported by the Business Office Specialist for ordering and inventory tracking.

Future Plans:

Warren Woods continues to carefully evaluate technology proposals at the elementary, secondary and high school levels. Each proposal needs to be appraised for cost, impact, and practicality. As projects are approved, available funds are allocated according to student population. Goals are to:

- Enable easy, seamless, secure connection to network from all access points
- Ensure the wide area networks provide adequate connectivity
- Investigate new technologies that will enhance curriculum delivery
- Warren Woods Public Schools will continue to work with Macomb Intermediate School District in shared Internet Access
- Warren Woods Public Schools will continue to work with Macomb Intermediate School in sharing a 1GB Access

Resources:

Warren Woods is fortunate to have needed resources through the Macomb ISD including access to Blackboard, instructional support and resource, training, and management software. In addition, the District utilizes State resources such as the Michigan Electronic Library.

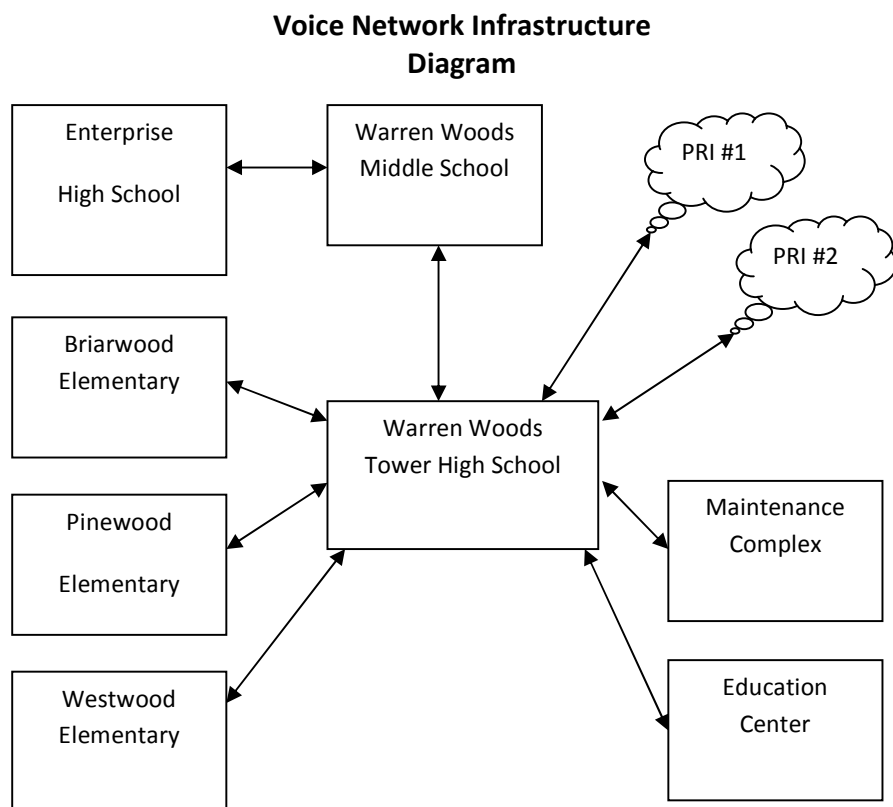
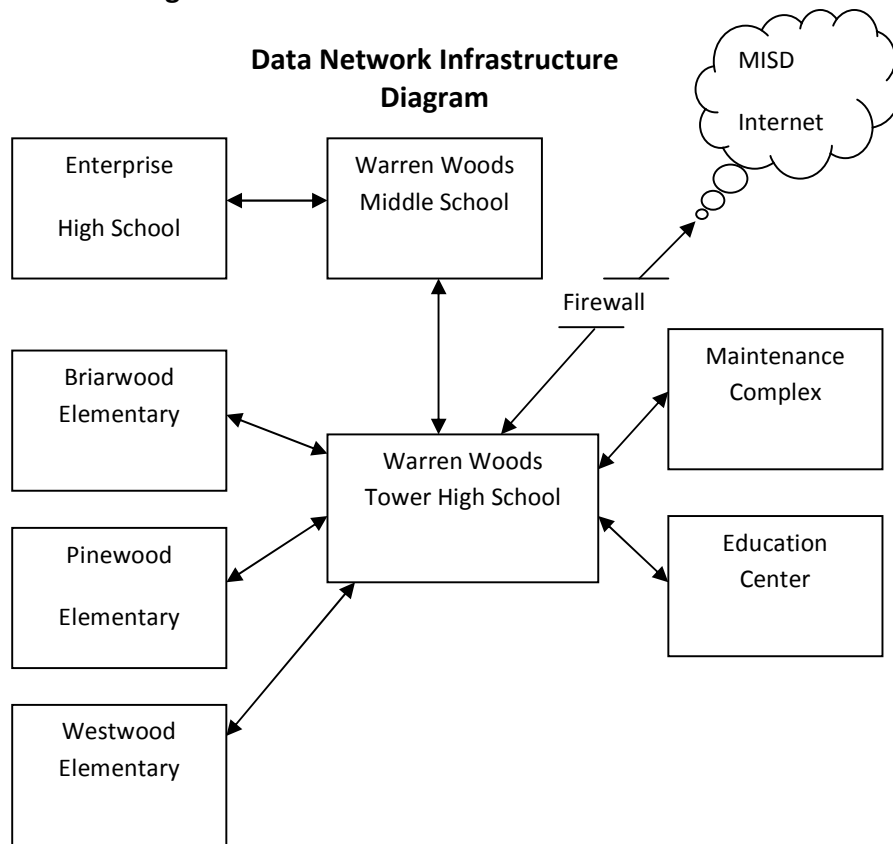
EQUITABLE ACCESS

Provisions have been made to make sure all students, regardless of physical or financial limitations have access to the technology in the labs, libraries and wireless locations in the buildings. Software is used to diversify the instruction on a one to one basis. Assessments assist in finding deficiencies to address.

The Warrant Woods Pubic School District services the county programs for Physically or Otherwise Health Impaired and Severely Language Impaired students, as well as other students from the District who fall under the umbrella of receiving special education. Students in the District are provided with assistive technology services and equipment. Requests for equipment purchases for students' needs are addressed and funding provided through the District special education office. Staff training to utilize equipment and some equipment for loan is available through the ISD.

Student equipment requests and staff training needs are expected to continue.

Infrastructure Diagrams



Goal 4:

Utilize technology to better communicate with the community

Warren Woods Schools utilize technology to communicate with parents and the community:

- The District Technology Plan will be posted on the Warren Woods Public Schools' website
- Opportunities will be provided to use computer labs and other resources for instruction and literacy
- State standards and expectations are posted on the school website
- Results of student achievement will be presented to parents, administration, curriculum council and board of education regularly through the District Student Achievement Team
- On-line information is provided by all buildings to keep families informed of weekly, monthly and yearly activities
- High school and middle school parents are able to access Power Schools from home
- Power Parent is a link through our web page that provides communication between family members and individual schools concerning grades, attendance, Pay Schools and scheduling
- Pay Schools is provided to parents for on-line payments for use of food service; child care and childcare, yearbooks, dance tickets at high school student fees, business office fees
- Community links are provided on the Warren Woods Public Schools web page
- Email addresses are posted for all Warren Woods Public Schools staff by building on the district website
- There is a combination of teacher, parent and administrative representation on the District Technology Committee
- Through the use of e-mail, voice mail, and on-line resources, such as Blackboard and Power Schools, to communicate with parents and the community
- Provide continuous training in the use of the web-based grade book, attendance reporting and other features of parental web-access to student information
- Assist staff in creating materials for placement on the District web page.

COLLABORATION

The District services the Adult and Community Education program through technology support and upgrading of computers, software, audio-visual equipment, and telephone systems. The program includes the learning center, ESL classes and various classrooms, community center, US Army Garrison Youth Programs, and Michigan Works.

- Learning Center has been equipped with workstations for testing and general classroom purposes. The ESL classrooms have been equipped with computers and Rosetta Stone software.
- Adult and Community Education aligns all curricula to State Standards.
- The program also provides business training services including options for job retraining.

BUDGET

The majority of funding for technology is provided through the Warren Woods Public Schools General Fund and Building and Site Fund. A budget is given to the technology team to purchase and replace computers and add District hardware and software as necessary. There is a five-year schedule for replacement of most hardware for both individual staff computers and student labs. The District inventory and curriculum direction determine the replacement and needs schedule. The District technology budget is used to support the following items: maintenance and repairs on printers, replacement parts for repairs on computers, expendable technology supplies such as toner, software annual licensing fees and updates, bulbs, cables, and other miscellaneous items.

Budgets are reviewed every year as a technology team including the Business Manager and are adjusted as necessary.

	2012 -2013	2013 – 2014	2014 - 2015
Salaries & Benefits	\$174,275.00	\$179,275.00	\$185,500.00
Outside Consultants	\$ 6,000.00	\$ 6,000.00	\$ 6,000.00
Equipment Replacements	\$160,000.00	\$160,000.00	\$160,000.00
Network infrastructure Renovations	\$100,000.00	0.00	0.00
Internet Service Cost (MISD)	\$ 25,000.00	\$ 25,000.00	\$ 25,000.00
Student Data Software	\$ 17,000.00	\$ 17,000.00	\$ 17,000.00
License Agreements	\$ 12,000.00	\$ 12,000.00	\$ 12,000.00
Local Travel	\$ 300.00	\$ 300.00	\$ 300.00
Phone Service	\$ 20,000.00	\$ 20,000.00	\$ 20,000.00
School Communication Software	\$ 4,000.00	\$ 4,325.00	\$ 4,500.00
Anti Virus Software	\$ 4,000.00	\$ 4,000.00	\$ 4,000.00
Professional Development	\$ 2,500.00	\$ 2,500.00	\$ 2,500.00
Work Order and Inventory System	\$ 8,000.00	\$ 8,000.00	\$ 8,000.00
Microsoft Licensing	\$ 16,000.00	\$ 16,000.00	\$ 16,000.00
Contracted Equipment Repairs/Services	\$ 15,000.00	\$ 15,000.00	\$ 15,000.00
Fiber Pole Rental Fees	\$ 1,000.00	\$ 1,000.00	\$ 1,000.00
Office Supplies	\$ 2,500.00	\$ 2,500.00	\$ 2,500.00
IT Parts & Supplies	\$ 50,000.00	\$ 50,000.00	\$ 50,000.00
Dues and Fees	\$ 750.00	\$ 750.00	\$ 750.00
TOTAL	\$618,325.00	\$523,650.00	\$530,050.00

Coordination of Resources

Warren Woods Public Schools has a history of seeking out possible funding sources for the implementation of the districts Technology long-range plan. The district has applied for and received Universal Service Funds to help with telecommunications costs.

Title I ARRA funds were used to purchase and install Interactive Whiteboards in some of our Title I classrooms. Participation in the Regional Educational Media Center (REMC) provides access to Co-op purchasing for on-line resources, AV-equipment, and State of Michigan Bids for computer hardware, software and supplies.

Warren Woods Public Schools will continue to seek funding sources that become available through grants and local, state or federal programs. Coordination of district general funds, USF funding, grants and other programs will continue to be a priority for the district as we plan for new implementations and support of current technologies.

Evaluation

- All data will assist us in determining the effectiveness of the integration of technology in the curriculum
- Evaluate eighth grade performance on the NCLB Technology Literacy Assessment and make necessary adjustments in K-8 curriculum
- Evaluate ninth-twelfth grade performance in specific courses that require technology competency
- WWPS PLC Teams will review Technology Standards and ensure implementation
- Target areas that need enhancements and develop methods to improve them
- Check on the MEAP scores yearly and evaluate and make necessary changes for staff training.
- Look at how staff uses technology to determine how well we are integrating what is currently available
- Target areas and technologies that should be used more effectively and develop a plan to provide training and support
- Implement the plan to increase technology integration
- Evaluate student assessments after course completion and make necessary adjustments for staff training annually

TIMELINE

Activity:	2012-13	2013-14	2014-15
Continued alignment of core curriculum with METS: curriculum committees	X	X	X
Implement activities described in Goal One: pages 7-9	X	X	X
Provide training in the use of technology for teachers	X	X	X
Provide training and support in the integration of technology for teachers	X	X	X
Implement Data Director	X	X	X
Utilize Macomb ISD training	X	X	X
Continue the technology replacement cycle	X	X	X
Evaluation of technology infrastructure	X	X	X
Use of SchoolDude work order system	X	X	X
Software evaluated based on curriculum or administrative need and compatibility with existing hardware and software	X	X	X
Investigate new technologies that will enhance curriculum	X	X	X
Continue membership in Macomb Wide Area Network Consortium	X	X	X
Post the technology plan on the website	X		
Continued use of technology to communicate with parents	X	X	X
Enforcement of the Acceptable Use Policy	X	X	X
Review and update Technology Plan	X	X	X

CHILDREN'S INTERNET PROTECTION ACT

Warren Woods Public Schools are committed to meeting the requirement of Children's Internet Protection Act (CIPA) by implementing the following:

1. Filtering: The Macomb ISD provides the filtering for the Macomb Consortium Wide Area Network of which Warren Woods is a member. Monitoring reports are available upon request. The District does not allow students to bring their own devices to utilize on the school network. If this policy changes, then a Bring Your Own Technology policy will be developed and adopted.
2. The Acceptable Use Policy which requires both student and parent signature guarantees that the following are addressed:
 - Access by minors to inappropriate matter on the Internet
 - Safety and security of minors when using electronic mail, chat rooms, and other communication
 - Unauthorized access including hacking and cyber bullying, copyright and plagiarism
 - Unauthorized disclosure, use and dissemination of personal identification information regarding minors
 - Measures designed to restrict minors access to harmful materials.
 - Policy must apply to both minors and adults.
3. Students are educated about appropriate online behavior at the beginning of each school year before they sign the Acceptable Use Policy. Sessions have also been held by with the Macomb County Sheriff's office to talk to the students about Internet Safety and Cyber bullying. Beginning in 2012/2013, the Warren Woods Middle School will also be participating in the 21 Things for the 21st Century Student and utilizing the module on internet safety for students.
4. While the District originally held a public hearing concerning the CIPA regulations, Warren Woods Public Schools will again hold a public hearing to review internet safety and the Acceptable Use Policy. The District will keep a copy of the notices of the meeting, the date and proof that it was done.

Staff Acceptable Use Agreement for Computers and Other Technology

Computers and other technology are to be used in a responsible, efficient, ethical, and legal manner. Technology includes, but is not limited to, computers, disk drives, printers, scanners, networks, software, video and audio recorders, cameras, photocopiers, telephones, and other related electronic resources. Networks include, but are not limited to, all voice and data systems. Users include anyone who is accessing or using District technology.

District technology can be used to access the Internet, a global information and communication network that provides significant educational opportunities to our students. The Board has adopted policies for Student Network and Internet Acceptable Use and Safety, and Staff Network and Internet Acceptable Use and Safety.

By signing this form, I agree to the following terms for use of District technology, including the Internet:

1. I understand that the use of District technology is a privilege and not a right. My use of technology may be monitored by District staff, and is not to be considered confidential or private. Warren Woods reserves the right to access, review, or delete any information on the District network.
2. My use of District technology is for educational purposes only, as determined by the District's mission statement and curriculum.
3. I will not use the school District network for commercial use, for inappropriate or illegal purposes of any kind, nor for activities that could be dangerous to myself or to others. Warren Woods will not be held responsible if I participate in such activities.
4. I will not use the school District network to send or receive threatening, obscene, or harassing materials. Warren Woods will not be held responsible if I participate in such activities.
5. I will not interfere with, disrupt, or cause damage to District technology equipment, networks, and services.
6. I will respect copyright laws and fair use practices.
7. I will not use multi-user talk sites (chat rooms), games, or blogs, except those designated as permissible.
8. I am responsible for any misuse that results from sharing my password. Therefore, I will not share my password.
9. I will accept the responsibility of any student Internet access from my classroom/office.

I understand that if I do not follow the above guidelines, I may face disciplinary action, loss of technology privileges and network access, and/or legal action. Penalties will be determined by the School District.

Please read carefully and then PRINT your name on the line below:

I, _____, have read the guidelines stated above and agree to follow them.

(Please Print)

Please sign and date below:

Staff Signature _____ **Date:** _____

(Please Sign)

(Please date)

STUDENT ACCEPTABLE USE AGREEMENT FOR COMPUTERS AND OTHER TECHNOLOGY

Computers and other technology are to be used in a responsible, efficient, ethical, and legal manner. Technology includes, but is not limited to, computers, disk drives, printers, scanners, networks, software, video and audio recorders, cameras, photocopiers, telephones, and other related electronic resources. Networks include, but are not limited to, all voice and data systems. Users include anyone who is accessing or using District technology.

District technology can be used to access the Internet, a global information and communication network that provides significant educational opportunities to our students. The Board has adopted policies for Student Network and Internet Acceptable Use and Safety, and Staff Network and Internet Acceptable Use and Safety.

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2. My use of District technology is for educational purposes only, as determined by the District's mission statement and curriculum.
3. I will not use the School District network for commercial use, for inappropriate or illegal purposes of any kind, nor for activities that could be dangerous to myself or to others. Warren Woods will not be held responsible if I participate in such activities.
4. I will not use the School District network to send or receive threatening, obscene, or harassing materials. Warren Woods will not be held responsible if I participate in such activities.
5. I will not interfere with, disrupt, or cause damage to District technology equipment, networks, and services.
6. I will respect copyright laws and fair use practices.
7. I will not use multi-user talk sites (chat rooms), games, or blogs, except those designated as permissible.
8. I am responsible for any misuse that results from sharing my password. Therefore, I will not share my password.

I understand that if I do not follow the above guidelines, I may face disciplinary action, loss of technology privileges and network access, and/or legal action. Penalties will be determined by the School District.

Please read carefully and then PRINT your name on the line below:

I, _____, as parent/guardian of a Warren Woods student, grant my child access to District technology, including the Internet, and agree to enforce the guidelines stated above.

Parent/Guardian Signature _____

I, _____, as a Warren Woods student, have read the guidelines stated above and agree to follow them.

Student Signature _____

Date: _____