Avondale School District

Technology Plan
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www.avondale.k12.mi.us
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Oakland Intermediate School District
District Code: 63000

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District Technology Committee Membership

The Technology Committee members are:

Chris	*Chlebek*	*Avondale Middle School*	Technology Teacher
Dave	*Dawley*	*Administration Building*	Technology Technician
Deanna	*Johnson*	*Avondale Middle School*	Drama/Technology Teacher
Renee`	*Worley*	*Deerfield Elementary*	Kindergarten Teacher
Andrew	*Maurer*	*High School*	CAD Teacher
John	*Pagel*	*Deerfield Elementary*	Elementary Principal/Director of Information and Technology Services/District Parent
Kathy	*Stock*	*Graham Elementary*	4th Grade Teacher
Linda	*Lindeman*	*Auburn/Graham Elementary*	Media Specialist
Barb	*Trammell*	*Deerfield/Woodland Elementary*	Media Specialist
Jeffrey	*Kish*	*Administration Building*	Technology Technician
Bruce	*Roosen*	*Administration Building*	Contract Network Engineer
Mary	*Zuehlk*	*Administration Building*	Information Systems Tech
Puran	*Raber*	*Avondale Schools*	District Parent
Sue	*Briggs*	*Administration Building*	Administration Secretary
Laura	*Amatulli*	*Avondale Schools*	District Parent
Linda	*Maniago*	*Auburn Elementary*	3rd Grade Teacher
Patricia	*Adolfs*	*High School*	Social Studies Teacher
Richard	*Kreinbring*	*High School*	English Teacher
Aaron	*Donaghy*	*High School*	Leadership Teacher
Dawn	*Schupbach*	*High School*	Mathematics Teacher
Michelle	*Imbrunone*	*High School*	Assistant Principal
Signe	*Millerd*	*Auburn Elementary*	4th Grade Teacher
David	*Pass*	*Graham Elementary*	Principal
Gary	*Van Staveren*	*Avondale Middle School*	Assistant Principal

Ex-officio

Christine Owen, Educational Technology Consultant

Convergent Technology Partners

Executive Summary

The Avondale School District Technology Plan is designed to guide the district through the 2011-14 school years as it strives to meet the changing needs of our students in a technologically driven society. These needs require the district to view technology from a new perspective; no longer is technology synonymous with equipment. New state and federal requirements have led to the development of a comprehensive, multidimensional planning and implementation tool. These requirements include the following components: professional development, technical support, maintenance, evaluation, budgeting, collaboration and a viable timetable. This comprehensive view of technology reflects the total cost of implementation, maintenance and integration in the educational process.

Implementing the Technology Plan will help promote a shift towards a questioning and thought provoking learning process, where students attempt to solve real-world problems utilizing real-time data. This interactive process will take advantage of data and tools that in the past were only available to corporations and the most elite institutions of higher learning. Avondale students will be prepared to compete and excel in the most demanding environments, whether it is academic or professional.

Undertaking a project of this magnitude requires a strong philosophical commitment from the district leadership, community, staff and students, as well as significant financial support. The elements of professional development, maintenance and staffing are vital components in the success of Avondale's Technology Plan.

Introduction

Since the early 1980's, the Avondale School District has had a volunteer technology/computer committee comprised of representatives from each building, administration and parent volunteers. The focus of the Technology Committee has been to help guide the district in the use and acquisition of technological purchases and decisions that impact student learning and performance.

In 1996, the Avondale School District Technology Committee created a district technology plan that was submitted to the State of Michigan as the guiding document for the following five years. Through the passage of a school bond issue, this plan guided the district through the installation of both wide and local area networks. The plan also provided the framework for the purchase of four student computers, a teacher workstation and printer in every core academic classroom in the district.

In 2001, the Avondale Board of Education once again called upon the District Technology Committee to craft a plan for the use and integration of technology in the Avondale School District for the next three to five years. This technology plan has seen the district through the past five years of growth and the implementation of a generous bond that provided for technology integration throughout the K-12.

In the Fall of 2005 the new District Technology Committee began revisions on the plan for the next three years. For the 2011-14, a new Plan has been developed which will take the district a step beyond where it has been now that the 2005 bond for technology has been implemented.

In the Spring of 2009, the Avondale School District adopted a Strategic Action Plan designed to be the guiding document for our district reform for the next five years. The District Technology Committee collectively wrote the action plan for technology. In the fall of 2010, the Avondale Community passed a bond issue that is in support of this District Technology Plan and the Technology Strategic Action Plan.

The recommendations of the District Technology Committee are that the Avondale Board of Education adopt and financially support this document as a "living document" for the use and integration of technology as we prepare our students to be productive citizens in a technologically driven society.

It is the goal of the District Technology Committee to review this document on an annual basis to ensure the accuracy and integrity of the document are maintained and continue to meet the beliefs of the Avondale School District.

Avondale School District Demographics

The Avondale School District is located in Oakland County, Michigan. The Avondale Community consists of residents from Auburn Hills, Bloomfield Township, Rochester Hills and Troy. The district employs about 290 staff to meet the needs of the nearly 3,900 multi-cultural students. The district facilities are composed of four elementary schools (two K- 5th grade: Deerfield Elementary and Graham Elementary; and two Pre-K-5th grade: Woodland Elementary and Auburn Elementary), one 6th – 8th grade middle school (Avondale Middle School), one 9th-12th grade high school (Avondale High School) and one alternative high school (Avondale Academy). The district also provides services for preschool and Montessori programs.

Avondale is the proud home of two Michigan Exemplary Schools. Deerfield Elementary (98-99) and Avondale Middle School (01-02) have been granted the Blue Ribbon Award for their excellence in education. In addition, Deerfield Elementary and the Middle School were selected as a National Blue Ribbon Schools.

Avondale has experienced tremendous growth and improvements in our facilities over the last two years. We have constructed two new Elementary Schools, both Graham Elementary and Auburn Elementary have been rebuilt with state of the art technology. Every building in the district has undergone remodeling and technology upgrades during the current bond.

Even when our district experienced increasing enrollment, the district was able to maintain its family-style uniqueness, through small class size.

Avondale School District Mission

In partnership with students, families and community members, the Avondale School District will develop socially responsible students who effectively communicate and solve problems.

Avondale Technology Belief Statement

Avondale School District believes that implementing this Technology Plan will help promote a shift towards a questioning and thought-provoking learning process, where students attempt to solve real-world problems utilizing current information. This interactive learning process will take advantage of technological tools that will prepare Avondale students to thrive and excel in the most demanding environments, whether academic or professional. We believe that learners become effective when they bring technology to bear across all curricular areas and when it is applied throughout the learning process.

The Avondale School District has made tremendous growth in the areas of technology. We are currently exploring ways of creating "smart classrooms" throughout the district where teachers will utilize tablet pc technology integrated with wireless connectivity with the network, as well as projectors, sound field enhancement, document cameras and a complete instructional suite of technology. Our vision includes this implementation occurring over the next 5 years across the district in phases.

Successful technology integration depends upon a strong philosophical and financial commitment by all stakeholders including district leadership, community members, staff and students. Infrastructure, staffing and professional development are the three key components necessary to support our vision.

The district design includes training being provided through the partnership with Gateway Professional Learning Services and Knowledge Network Systems (KNS). This training will began during the summer of 2010 and will continue in phases through 2014. The TITLE program "Technology Integration for Teaching and Learning in Education" will be the primary source of on going instruction for teachers in the classroom. Training for applications using the tablet PC technology will be offered quarterly as well as self paced on-line options will be available.

By the fall of 2008, the Avondale School district had implemented a fully functional Wide Area Network, including switches, routers, servers, IP phone system, gateways, firewalls, and desktops, and a fibered WAN. We will have transitioned from a Novell work environment to a completely Microsoft operating system across the district.

Our vision for the coming years will include a completely integrated software solution, which will allow greater ease of use for all staff, students, and community.

Avondale School District: Technology Vision

Through the integration of technology, Avondale will effectively prepare students, staff, and community to excel and live responsibly in a technologically driven society.

Technology Plan Goals and Objectives

The following goals and objectives serve as guiding principles for the district technology plan. These goals and objectives reflect the actions that are necessary to provide the students and staff of Avondale Schools with the skills and tools required by a technologically driven society.

1) **To prepare students to excel in a society that is continually being changed by technology.**

   a) *Exiting high school seniors will demonstrate competency on a technological competency test or complete approved courses to meet the graduation requirement.*

   b) *A technology exit survey will be administered to high school seniors.*

   c) *The follow-up career survey for graduates will include a technology component.*

2) **To integrate technology into the Avondale daily instructional and non-instructional activities.**

   a) *Evidence of technology integration will be included in current curricular documents.*

   b) *A professional development program will be developed in conjunction with the Human Resources department and Curriculum department to facilitate instructional and non-instructional integrated activities.*

   c) *Technology integration will be encouraged as a component of the teacher evaluation process.*

3) **To provide equitable access to district funded technology resources.**

   a) *Avondale will maintain an inventory of district-funded technology at each building.*

   b) *This inventory will be monitored to ensure equitable access to technology resources among buildings at the individual Avondale instructional levels (i.e. lower elementary, upper elementary, middle school and high school).*

   c) *As students progress from one building level to the next, they will have access to technology that is equal to or more sophisticated than the technology that they have had access to in the past.*

4) **To maintain, replace and/or upgrade infrastructure and hardware to meet the district technology standard.**

   a) *The District Technology Committee will work in cooperation with the Avondale Board of Education to develop a "Technology Cycle of Interdependence" to maintain, replace and upgrade district funded technology resources.*

   b) *The district technology staff will prioritize and schedule timely maintenance and repair in an effort to minimize user down time.*

   c) *The district will employ one person as a "Network Manager", as well as 2-4 part-time technicians. Each building will have at least 2 teachers appointed as liaisons to assist with building technology support.*

5) **To provide staff with support, including training and assistance, to effectively utilize technology.**

   a) *Avondale staff will be provided with technical assistance and curriculum support through staffing.*

   b) *District Technology Coordinator will facilitate technology/integration training programs for the Avondale School District.*

   c) *District will devote at least one annual in-service to technology and curriculum integration training.*

   d) *District will hold a technology fair in which educators (both Avondale and outside resources) present technology enhanced lessons and class projects.*

   e) *Every staff member will be supported and encouraged to participate in at least 10 hours of technology/integration training annually including sessions both in and out of the district.*

Goal One

To prepare students to excel in a society that is continually being changed by technology.

a) *Exiting high school seniors will demonstrate competency on a technological competency test or complete approved courses to meet the graduation requirement.*

b) *A technology exit survey will be administered to high school seniors.*

c) *The follow-up career survey for graduates will include a technology component.*

High School Technology Competency

High School students will be given several options to meet the State High School On-Line Requirement. These include the following:

1) AHS has two choices to fulfill their 20 hours of online coursework:

   - Basic Business Applications
   - Advanced Basic Business Applications

2) On-line college classes available for dual enrollment

3) Michigan Virtual High School online courses

4) Michigan Virtual High School: Career Forward

5) On-line classes available through Oakland Schools

In addition to meeting the high school on-line graduation requirement, the following will be implemented:

- A technology exit survey will be administered to high school seniors.
- The follow-up career survey for graduates will include a technology component.

Adult Learners

Due to financial constraints, the Avondale School District no longer offers Adult Education programs through our district Community Education Program thus matrix item #20 is not applicable.

Goal Two

To integrate technology into the Avondale daily instructional and non-instructional activities

a) *Evidence of technology integration will be included in current curricular documents.*

b) *A professional development program will be developed in conjunction with the Human Resources department and Curriculum department to facilitate instructional and non-instructional integrated activities.*

c) *Technology integration will be encouraged as a component of the teacher evaluation process.*

Curriculum Integration

Avondale's current curriculum review process is based on a four-year cycle of interdependence. During this review process, the curriculum is carefully analyzed, evaluated and revised to address the changing needs of our students. Technology is one of the key components evaluated within each curricular area as it moves through the cycle of interdependence. The focus during this evaluation has shifted from the hardware/software needs of the curricular to how technology as a tool is a vital component within the curriculum.

Utilizing the Avondale School District Curriculum Cycle of Interdependence below, the DTC is collaborating with each curricular committee during the Study and Development Phases to facilitate this shift in thinking. The curricular committees have started to develop curriculum integration modules to provide curricular tools for teachers. (See example – appendix)

Proposed Curriculum Four Year Cycle of Interdependence

	2011-2012	2012-2013	2013-2014	2014-2015
Study Phase/ Review	Mass Media / Ed Technology Fine Arts Physical Education Careers	Foreign Language Science	Social Studies Special Service Alternative Education	Language Arts Gifted & Talented Safety
Development/Revision	Math Guidance Health	Mass Media / Ed Technology Fine Arts Physical Education Careers	Foreign Language Science	Social Studies Special Service Alternative Education
Implementation / Adoption	Language Arts Gifted & Talented Safety	Math Guidance Health	Mass Media / Ed Technology Fine Arts Physical Education Careers	Foreign Language Science
Monitoring	Social Studies Special Service Alternative Education	Language Arts Gifted & Talented Safety	Math Guidance Health	Mass Media / Ed Technology Fine Arts Physical Education Careers
Evaluation / Assessment	Foreign Language Science	Social Studies Special Service Alternative Education	Language Arts Gifted & Talented Safety	Math Guidance Health

Technology Performance Indicators:

The District Technology Committee believes that the enclosed Technology Standards are to be a component of daily instruction with most curricular areas. These skills should not be taught in complete isolation. The belief is that technology is a tool that enhances the teaching and learning process, and therefore should be folded into curriculum. To begin this integration process, the Avondale Schools District has approved the Michigan Educational Technology Standards as the district curriculum. A lesson plan template and sample lessons have been, and continue to be, developed to assist teachers in creating curricular activities.

Michigan Educational Technology Standards (METS) - K-8 Checklist by Grade Levels

O = Teacher Observation	P = Portfolio Evidence	A = Formal Assessment	C = Technology Literacy Class

Grades K through 2 – Technology Standards and Expectations – (by the end of Grade 2)										
1. Basic Operations and Concepts. **a. Students demonstrate a sound understanding of the nature and operation of technology systems.**	**K**	**1**	**2**							
1. Students understand that people use many types of technologies in their daily lives (e.g., computers, cameras, audio/video players, phones, televisions).										
2. Students identify common uses of technology found in daily life.										
3. Students recognize, name, and label the major hardware components in a computer system (e.g., computer, monitor, keyboard, mouse, printer).										
4. Students identify the functions of the major hardware components in a computer system.										
5. Students discuss the basic care of computer hardware and various media types (e.g., diskettes, CDs, DVDs, videotapes).										
6. Students proofread and edit their writing using appropriate resources including dictionaries and a class developed checklist both individually and as a group.										
b. Students are proficient in the use of technology.	**K**	**1**	**2**							
1. Students use various age-appropriate technologies for gathering information (e.g., dictionaries, encyclopedias, audio/video players, phones, web resources).										
2. Students use a variety of age-appropriate technologies for sharing information (e.g., drawing a picture, writing a story).										
3. Students recognize the functions of basic file menu commands (e.g., new, open, close, save, print).										
2. Social, ethical, and human issues. **a. Students understand the ethical, cultural, and societal issues related to technology.**	**K**	**1**	**2**							
1. Students identify common uses of information and communication technologies.										
2. Students discuss advantages and disadvantages of using technology.										
b. Students practice responsible use of technology systems, information, and software.	**K**	**1**	**2**							
1. Students recognize that using a password helps protect the privacy of information.										
2. Students discuss scenarios describing acceptable and unacceptable uses of age-appropriate technology (e.g., computers, phones, 911, internet, email) at home or at school.										

3. Students discuss the consequences of irresponsible uses of technology resources at home or at school.									
c. Students develop positive attitudes toward technology uses that support lifelong learning, collaboration, personal pursuits, and productivity.	**K**	**1**	**2**						
1. Students understand that technology is a tool to help complete a task.									
2. Students understand that technology is a source of information, learning and entertainment.									
3. Students can identify places in the community where one can access technology.									
3. Technology productivity tools. **a. Students use technology tools to enhance learning, increase productivity, and promote creativity.**	**K**	**1**	**2**						
1. Students know how to use a variety of productivity software (e.g., word processors, drawing tools, presentation software) to convey ideas and illustrate concepts.									
2. Students will be able to recognize the best type of productivity software to use for a certain age-appropriate tasks (e.g., word-processing, drawing, web browsing).									
b. Students use productivity tools to collaborate in constructing technology-enhanced models, prepare publications, and produce other creative works.	**K**	**1**	**2**						
1. Students are aware of how to work with others when using technology tools (e.g., word processors, drawing tools, presentation software) to convey ideas or illustrate simple concepts relating to a specified project.									
4. Technology communications tools **a. Students use telecommunications to collaborate, publish, and interact with peers, experts, and other audiences.**	**K**	**1**	**2**						
1. Students will identify procedures for safely using basic telecommunication tools (e.g., e-mail, phones) with assistance from teachers, parents, or student partners.									
b. Students use a variety of media and formats to communicate information and ideas effectively to multiple audiences.	**K**	**1**	**2**						
1. Students know how to use age-appropriate media (e.g., presentation software, newsletters, word processors) to communicate ideas to classmates, families, and others.									
2. Students will know how to select media formats (e.g., text, graphics, photos, video), with assistance from teachers, parents, or student partners, to communicate and share ideas with classmates, families, and others.									
5. Technology research tools **a. Students use technology to locate, evaluate, and collect information from a variety of sources.**	**K**	**1**	**2**						
1. Students know how to recognize the Web browser and associat it with accessing resources on the internet.									

2. Students will use a variety of technology resources (e.g., CD-ROMs, DVDs, search engines, websites) to locate or collect.										
b. Students use technology tools to process data/report results.	**K**	**1**	**2**							
1. Students will interpret simple information from existing age-appropriate electronic databases (e.g., dictionaries, encyclopedias, spreadsheets) with assistance from teachers, parents, or student partners.										
c. Students evaluate and select new information resources and technological innovations based on the appropriateness to specific tasks.	**K**	**1**	**2**							
1. Students can provide a rationale for choosing one type of technology over another for completing a specific task.										
6. Technology problem-solving and decision-making tools **a. Students use technology resources for solving problems and making informed decisions.**	**K**	**1**	**2**							
1. Students discuss how to use technology resources (e.g., dictionaries, encyclopedias, search engines, websites) to solve age-appropriate problems.										
b. Students employ technology in the development of strategies for solving problems in the real world.	**K**	**1**	**2**							
1. Students identify ways that technology has been used to address real-world problems (personal or community).										

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

O = Teacher Observation	P = Portfolio Evidence	A = Formal Assessment	C = Technology Literacy Class

Grades Three through Five – Technology Standards and Expectations –(by the end of Grade 5)										
1. Basic Operations and Concepts. **a. Students demonstrate a sound understanding of the nature and operation of technology systems.**				**3**	**4**	**5**				
1. Students discuss ways technology has changed life at school and home.										
2. Students discuss ways technology has changed business and government over the years.										
3. Students recognize and discuss the need for security applications (e.g., virus detection, spam defense, popup blockers, firewalls) to help protect information and to keep the system functioning properly.										
b. Students are proficient in the use of technology.				**3**	**4**	**5**				
1. Students know how to use basic input/output devices and other peripherals (scanners, digital cameras, projectors).										
2. Students know proper keyboarding positions and touch-typing techniques.										
3. Students manage and maintain files on a hard drive or the network.										
4. Students demonstrate proper care in the use of hardware,										

software, peripherals, and storage media.									
5. Students know how to exchange files with other students using technology (e-mail attachments, network file sharing, disks, flash drives).									
6. Students identify which types of software can be used most effectively for different types of data, for different information needs, or for conveying results to different audiences.									
7. Students identify search strategies to locate information on the internet.									
8. Students proofread and edit writing using appropriate resources (e.g., dictionary, spell check, grammar check, grammar references, and writing references) and grade level appropriate checklists individually /groups.									
2. Social, ethical, and human issues. **a. Students understand the ethical, cultural, and societal issues related to technology.**				**3**	**4**	**5**			
1. Students identify cultural and societal issues relating to technology.									
2. Students discuss how information and communication technology supports collaboration, productivity, and lifelong learning.									
3. Students discuss how various assistive technologies can benefit individuals with disabilities.									
4. Students discuss the accuracy, relevance, appropriateness, and bias of electronic information sources.									
b. Students practice responsible use of technology systems, information, and software.				**3**	**4**	**5**			
1. Students discuss scenarios describing acceptable and unacceptable uses of technology (e.g., computers, digital cameras, cell-phones, PDAs, wireless connectivity) and describe consequences of inappropriate use.									
2. Students discuss basic issues regarding appropriate and inappropriate uses of technology (e.g., copyright, privacy, file sharing, spam, viruses, and plagiarism) and related laws.									
3. Students use age-appropriate citing of sources for electronic reports.									
4. Students identify appropriate kinds of information that should be shared in public chat rooms.									
5. Students identify safety precautions to be taken while on-line.									
c. Students develop positive attitudes toward technology uses that support lifelong learning, collaboration, personal pursuits, and productivity.				**3**	**4**	**5**			
1. Students explore various technology resources that could assist them in pursuing personal goals.									
2. Students identify technology resources and describe how those resources improve the ability to communicate, increase productivity, or help them achieve personal goals.									

3. Technology productivity tools. **a. Students use technology tools to enhance learning, increase productivity, and promote creativity.**				**3**	**4**	**5**			
1. Students know how to use menu options in applications to print, format, add multimedia features; open, save, manage files; and use various grammar tools (e.g., dictionary, thesaurus, spell-checker).									
2. Students know how to insert various objects (photos, graphics, sound, video) into word processing documents, presentations, web documents.									
3. Students use a variety of technology tools and applications to promote their creativity.									
4. Students understand that existing (and future) technologies are the result of human creativity.									
b. Students use productivity tools to collaborate in constructing technology-enhanced models, prepare publications, and produce other creative works.				**3**	**4**	**5**			
1. Students collaborate using a variety of technology tools to plan, organize, create group project.									
4. Technology communications tools **a. Students use telecommunications to collaborate, publish, and interact with peers, experts, and other audiences.**				**3**	**4**	**5**			
1. Students use telecommunication (e-mail, WebQuests, IM, blogs, chat rooms, web conferencing) for collaborative projects with other students.									
b. Students use a variety of media and formats to communicate information and ideas effectively to multiple audiences.				**3**	**4**	**5**			
1. Students use a variety of media and formats to create/edit products (presentations, newsletters, brochures, web pages) to communicate information/ideas to various audiences.									
2. Students identify how different forms of media and formats may be used to share similar information, depending on the intended audience (e.g., presentations for classmates, newsletters for parents).									
5. Technology research tools **a. Students use technology to locate, evaluate, and collect information from a variety of sources.**				**3**	**4**	**5**			
1. Students use Web search engines and built-in search functions of other resources to locate information.									
2. Students describe basic guidelines for determining the validity of information accessed from various sources (e.g., web site, dictionary, on-line newspaper, CD-ROM).									
b. Students use technology tools to process data and report results.				**3**	**4**	**5**			
1. Students know how to independently use existing databases (e.g., library catalogs, electronic dictionaries, encyclopedias) to locate, sort, and interpret information on an assigned topic.									

2. Students perform simple queries on existing databases and report results on an assigned topic.									
c. Students evaluate and select new information resources and technological innovations based on the appropriateness to specific tasks.				**3**	**4**	**5**			
1. Students identify appropriate technology tools and resources by evaluating the accuracy, appropriateness, and bias of the resource.									
2. Students compare and contrast the functions and capabilities of the word processor, database, and spreadsheet for gathering data, processing data, performing calculations, and reporting results.									
6. Technology problem-solving and decision-making tools **a. Students use technology resources for solving problems and making informed decisions.**				**3**	**4**	**5**			
1. Students use technology 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).									
b. Students employ technology in the development of strategies for solving problems in the real world.				**3**	**4**	**5**			
1. Students use information/communication technology (calculators, probes, videos, DVDs, software) to collect, organize, and evaluate information to assist with solving real-life problems (personal or community).									

Michigan Educational Technology Standards (METS) - 6th to 8th Checklist

O = Teacher Observation	**P = Portfolio Evidence**	**A = Formal Assessment**	**C = Technology Literacy Class**

Grades Six through Eight – Technology Standards and Expectations (by the end of Grade 8)									
1. Basic Operations and Concepts. **a. Students demonstrate a sound understanding of the nature and operation of technology systems.**							**6**	**7**	**8**
1. Students understand that new technology tools can be developed to do what could not be done without the use of technology.									
2. Students describe strategies for identifying, and preventing routine hardware/software problems that may occur during everyday technology use.									
3. Students identify changes in hardware and software systems over time and discuss how these changes affected various groups (e.g., individual users, education, government, and businesses).									
4. Students discuss common hardware/software difficulties and identify strategies for trouble-shooting and problem solving.									
5. Students identify characteristics suggesting computer system hardware/software may need to be upgraded.									

b. Students are proficient in the use of technology.							**6**	**7**	**8**
1. Students use proper keyboarding posture, finger positions, and touch-typing techniques to improve accuracy, speed, and general efficiency in operating a computer.									
2. Students use accurate technology terminology.									
3. Students use a variety of technology tools (e.g., dictionary, thesaurus, grammar-checker, calculator) to maximize the accuracy of technology-produced products.									
4. Students identify a variety of information storage devices (e.g., floppies, CDs, DVDs, flash drives, tapes) and provide a rationale for using a certain device for a specific purpose.									
5. Students identify technology resources that assist with various consumer related activities (e.g., budgets, purchases, banking transactions, product descriptions).									
6. Students can identify appropriate file formats for a variety of applications.									
7. Students can use basic utility programs or built-in application functions to convert file formats.									
8. Students proofread and edit writing using appropriate resources (dictionary, spell check, grammar check, grammar references, writing references) and grade level appropriate checklists individually and groups.									
2. Social, ethical, and human issues. **a. Students understand ethical, cultural, societal issues related to technology.**							**6**	**7**	**8**
1. Students understand the potential risks and dangers associated with on-line communications.									
2. Students identify security issues related to e-commerce.									
3. Students describe possible consequences and costs related to unethical use of information and communication technologies.									
4. Students discuss societal impact of technology in the future.									
b. Students practice responsible use of technology systems/information/software							**6**	**7**	**8**
1. Students provide accurate citations when referencing information from outside sources in electronic reports.									
2. Students discuss issues related to acceptable and responsible technology use (privacy, security, copyright, plagiarism, spam, viruses, file-sharing).									
c. Students develop positive attitudes toward technology uses that support lifelong learning, collaboration, personal pursuits, and productivity.							**6**	**7**	**8**
1. Students use technology to identify/explore various occupations/careers.									
2. Students discuss uses of technology (present and future) to support personal pursuits and lifelong learning.									
3. Students identify uses of technology to support communication with peers, family, or school personnel.									

3. Technology productivity tools. **a. Students use technology tools to enhance learning, increase productivity, and promote creativity.**							**6**	**7**	**8**
1. Students apply common software features (thesaurus, formulas, charts, graphics, sounds) to enhance communication and to support creativity.									
2. Students use a variety of resources, including the internet, to increase learning and productivity.									
3. Students explore basic applications that promote creativity (e.g., graphics, presentation, photo-editing, programming, video-editing).									
4. Students use utilities for editing pictures/images/ charts.									
b. Students use productivity tools to collaborate in constructing technology-enhanced models, prepare publications, and produce other creative works.							**6**	**7**	**8**
1. Students use collaborative tools to design, develop, and enhance materials, publications, or presentations.									
4. Technology communications tools **a. Students use telecommunications to collaborate, publish, and interact with peers, experts, and other audiences.**							**6**	**7**	**8**
1. Students use various telecommunication (e-mail, discussion groups, IM, chat rooms, blogs, video-conferences, web conferences), other online resources to collaborate interactively with peers, experts, other audiences.									
b. Students use a variety of media and formats to communicate information and ideas effectively to multiple audiences.							**6**	**7**	**8**
1. Students create a project (presentation, web page, newsletter, information brochure) using a variety of media and formats (graphs, charts, audio, graphics, video) to present content information to an audience.									
5. Technology research tools **a. Students use technology to locate, evaluate, and collect information from a variety of sources.**							**6**	**7**	**8**
1. Students use a variety of Web search engines to locate information.									
2. Students evaluate information from various online resources for accuracy, bias, appropriateness, and comprehensiveness.									
3. Students can identify types of internet sites based on their domain names (e.g., edu, com, org, gov, au).									
b. Students use technology tools to process data and report results.							**6**	**7**	**8**
1. Students know how to create and populate a database.									
2. Students can perform queries on existing databases.									
3. Students know how to create and modify a database report.									
c. Students evaluate and select new information resources and technological innovations based on the appropriateness to specific tasks.							**6**	**7**	**8**

1. Students evaluate new technology tools and resources and determine the most appropriate tool to use for accomplishing a specific task.									
6. Technology problem-solving and decision-making tools **a. Students use technology resources for solving problems and making informed decisions.**							**6**	**7**	**8**
1. Students use database or spreadsheet information to make predictions, develop strategies, and evaluate decisions to assist them with solving a basic problem.									
b. Students employ technology in the development of strategies for solving problems in the real world.							**6**	**7**	**8**
1. Students describe the information and communication technology tools to use for collecting information from different sources, analyze their findings, and draw conclusions for addressing real-world problems.									

Grades 9-12 – Technology Standards and Expectations (by end of Grade 12)

1. Basic Operations and Concepts **a. Students demonstrate a sound understanding of the nature and operation of technology systems.**	**9**	**10**	**11**	**12**
1. Students discuss emerging technology resources (e.g., podcasting, webcasting, compressed video delivery, online file sharing, graphing calculators, global positioning software).				
2. Students identify the capabilities and limitations of emerging communication resources.				
3. Students understand the importance of both the predictable and unpredictable impacts of technology.				
4. Students identify changes in hardware and software systems over time and discuss how these changes might affect them personally in their role as a lifelong learner.				
5. Students understand the purpose/scope/use of assistive technology.				
6. Students understand that access to online learning increases educational and workplace opportunities.				
b. Students are proficient in the use of technology.	**9**	**10**	**11**	**12**
1. Students will be provided with the opportunity to learn in a virtual environment as a strategy to build 21st century learning skills.				
2. Students understand the relationship between electronic resources, infrastructure, and connectivity.				
3. Students will routinely apply touch-typing techniques with advanced accuracy, speed, and efficiency.				
4. Students assess and solve hardware and software problems by using online help or other user documentation and support.				
5. Students identify common graphic, audio, and video file formats (e.g., jpeg, gif, bmp, mpeg, wav).				
6. Students demonstrate how to import/export text, graphics, or audio files.				
7. Students proofread and edit a document using an application's spelling and grammar checking functions.				

2. Social, ethical, and human issues **a. Students understand the ethical, cultural, and societal issues related to technology.**	**9**	**10**	**11**	**12**
1. Students identify legal and ethical issues related to use of information and communication technology.				
2. Students analyze current trends in information and communication technology and assess the potential of emerging technologies for ethical and unethical uses.				
3. Students discuss possible long-range effects of unethical uses of technology (e.g., virus spreading, file pirating, hacking) on cultures and society.				
4. Students discuss the possible consequences and costs of unethical uses of information and computer technology.				
b. Students practice responsible use of technology systems, information, and software.	**9**	**10**	**11**	**12**
1. Students identify ways that individuals can protect their technology systems from unethical or unscrupulous users.				
2. Students demonstrate the ethical use of technology as a digital citizen and lifelong learner.				
3. Students explain the differences between freeware, shareware, and commercial software.				
4. Students adhere to fair use and copyright guidelines.				
5. Students create appropriate citations for resources when presenting research findings.				
6. Students adhere to the district acceptable use policy as well as state and federal laws.				
c. Students develop positive attitudes toward technology uses that support lifelong learning, collaboration, personal pursuits, and productivity.	**9**	**10**	**11**	**12**
1. Students explore career opportunities and identify their related technology skill requirements.				
2. Students design and implement a personal learning plan that includes technology to support his/her lifelong learning goals.				
3. Technology productivity tools **a. Students use technology tools to enhance learning, increase productivity, and promote creativity.**	**9**	**10**	**11**	**12**
1. Students complete at least one online credit, or non-credit, course or online learning experience.				
2. Students use technology tools for managing and communicating personal information (e.g., finances, contact information, schedules, purchases, correspondence).				
3. Students have access to and utilize assistive technology tools.				
4. Students apply advanced software features such as an application's built-in thesaurus, templates, and styles to improve appearance of word processing documents, spreadsheets, presentations.				
5. Students use an online tutorial and discuss the benefits and disadvantages of this method of learning.				

6. Students develop a document or file for inclusion into a web site or web page.				
7. Students use a variety of applications to plan, create, and edit a multimedia product (e.g., model, webcast, presentation, publication, or other creative work).				
8. Students have the opportunity to participate in real-life experiences associated with technology-related careers.				
b. Students use productivity tools to collaborate in constructing technology-enhanced models, prepare publications, and produce other creative works.	**9**	**10**	**11**	**12**
1. Students identify technology tools (authoring tools or other hardware/software resources) that can be used to create group projects.				
4. Technology communications tools **a. Students use telecommunications to collaborate, publish, and interact with peers, experts, and other audiences.**	**9**	**10**	**11**	**12**
1. Students identify and describe various telecommunications or online technologies (desktop conferencing, listservs, blogs, virtual reality).				
2. Students use available technologies (e.g., desktop conferencing, e-mail, groupware, instant-messaging) to communicate with others on a class assignment or project.				
3. Students collaborate in content-related projects that integrate a variety of media (e.g., print, audio, video, graphic, simulations, and models) with presentation, word processing, publishing, database, graphics design, or spreadsheet applications.				
4. Students plan and implement a collaborative project using telecommunications tools (e.g., groupware, interactive web sites, videoconferencing).				
b. Students use a variety of media and formats to communicate information and ideas effectively to multiple audiences.	**9**	**10**	**11**	**12**
1. Students use a variety of media and formats to design, develop, publish, and present products (e.g., presentations, newsletters, web sites) to communicate original ideas to multiple audiences.				
5. Technology research tools **a. Students use technology to locate, evaluate, and collect information from a variety of sources.**	**9**	**10**	**11**	**12**
1. Students compare, evaluate, and select appropriate internet search engines to locate information.				
2. Students determine if online sources are authoritative, valid, reliable, relevant, and comprehensive.				
3. Students distinguish between fact, opinion, point of view, inference.				
4. Students evaluate resources for stereotyping, prejudice, and misrepresentation.				
b. Students use technology tools to process data and report results.	**9**	**10**	**11**	**12**
1. Students formulate and use evaluation criteria (authority, accuracy, relevancy, timeliness) for information located on the internet to present research findings.				

c. Students evaluate and select new information resources and technological innovations based on the appropriateness to specific tasks.	**9**	**10**	**11**	**12**
1. Students develop a plan to gather information using various research strategies (interviews, questionnaires, experiments, online surveys).				
6. Technology problem-solving and decision-making tools **a. Students use technology resources for solving problems and making informed decisions.**	**9**	**10**	**11**	**12**
1. Students use a variety of technology resources (e.g., educational software, simulations, models) for problem solving and independent learning.				
2. Students describe the possible integration of two or more information and communication technology tools or resources to collaborate with peers, community members, and field experts.				
b. Students employ technology in the development of strategies for solving problems in the real world.	**9**	**10**	**11**	**12**
1. Students formulate a research question or hypothesis, then use appropriate information and communication technology resources to collect relevant information, analyze the findings, and report the results to multiple audiences.				

Examples of Technology Integration

Language Arts	Mathematics	Social Studies	Science
K-4 Create multimedia portfolio that showcases examples of student learning in all curricular areas. **5-8** Research and collect information from the Internet for a report. (Biography, Country, etc.) **9-12** Create and publish a web page that promotes a school cause. (Blood drive, SADD, homecoming, etc.)	**K-4** Collect and graph data to represent a connection to the real world. (Eye color, teeth lost, etc.) **5-8** Create a spreadsheet to track and analyze specific information. (Stock performance, weather temperatures, etc.) **9-12** Utilize programs that can help with daily life skills. (Create a budget, balance a check book, etc.)	**K-8** Utilize Internet resources to gather and record information about the community, state, region, country, and world. **5-8** Create a multimedia timeline of events. **9-12** Create a multimedia project that conveys a situation or need of people from around the world. (Senior project)	**K-8** Using optical devices such as digital cameras and microscopes to capture images that can be explored and recorded. (Record the growth of mold over an extended period) **9-12** Collaborate with external resources to track changes in weather and atmosphere. (Measure carbon dioxide, pollution, and impacts of natural occurrences on Michigan weather)
Visual Arts	**Music**	**Physical Education**	**Technology Education**
K-4 Utilize computer-drawing programs to demonstrate various artistic styles. **5-8** Create an animation that demonstrates an understanding. (Plant grows, water cycle, etc) **9-12** Scan and enhance images using the computer. (Yearbook, photo editing, etc.	**K-4** Use of MIDI interface for music composition and performance. **5-8** Use of internet resources to research and report on music styles and composers. **9-12** Create and record a digital music CD to demonstrate examples of music theory.	**K-8** Use a spreadsheet to track and graph personal performance (Presidential Fitness Award, growth, etc) **9-12** Use internet resources and other programs to calculate personal levels of body fat over the course of a semester.	**K-4** Introduction to skills and careers using technology in the workplace. **5-12** Exploration of specific skills, software and technologies. (CAD, Cisco, etc)

Special Education	Media Center	Foreign Language	District
K-12 Utilize software and peripherals to assist with special needs. (Large fonts for vision impaired, voice recognition software, etc) Remediation and reinforcement of skills using software programs. Use of portable technology. (Alphasmarts, laptops, voice recorders, etc)	**K-12** Computerized card catalog with access from classrooms. Workstations for information research. (CD-ROM, Internet, etc) Information hub and link to other educational institutions. (Video and voice)	**K-4** Use programs in alternate modes to learn different terminology. (Kid Pix in Spanish, etc.) **5-8** Access the web to determine how English can be converted into other languages. **9-12** Create a multimedia project that demonstrates an understanding of a language and culture.	Develop and maintain web pages to promote school / district functions highlight achievements and convey important information to the community. Collaborate with other institutions to develop instructional opportunities for staff and students. Automate data information systems. (Attendance, report cards, IEPS, etc.)

Grade Level(s):

K 1 (2) 3 4
5 6 7 8

Curricular Area(s):

Math
Communicative Arts
Science
Social Studies
Fine Arts
Foreign Language

Technology Benchmark(s):

1) Basic Operations
2) Social, Ethical and Human Issues
3) Productivity Tools
4) Communication Tools
5) Research Tools
6) Problem Solving Tools

Title: *Parts of the Eye*

Goals: Identifying parts of the eye
- Pupil
- Lens
- Iris

Description:

A second grade teacher can use this activity to introduce her to Internet Technology. Teachers can introduce the eye unit using various web sites. Using the information gathered from the Internet, teachers could develop activities including creative writing, art, graphing, and hands-on exploration of the eye.

Technology Resources:

Kid Pix as a drawing tool
Netscape Navigator to access the Internet
Netscape Composer publish student work to class/building web page
PowerPoint or Kid Pix Slide Show for a multimedia presentation
Digital Camera to capture student images for an eye color graph
MS Word for writing assignments – Journal, Story, Etc.
MS Excel as a graphing tool
Data Projector for whole group presentation

Web Links:

Yahooligans Search: Eyes

http://www.eyenet.org/public/anatomy/anatomy.html
http://www.keystoneblind.org/wiseweb.htm
http://tqjunior.advanced.org/3750/sight/sight.html

Curriculum Integration Timeline

Year	Project Description
2011-12	Assist with technology integration for Language Arts, Gifted & Talented and Safety Curriculum Revision Committees. Implement 100 hours of curriculum integration professional development classes. Implement Technology Standards K-12.
2012-13	Assist with technology integration for Math, Guidance, and Health Curriculum Revision Committees. Implement 120 hours of curriculum integration professional development classes. Implement Technology Mentors to facilitate technology integration.
2013-14	Assist with technology integration for Mass Media / Educational Technology, Fine Arts, Physical Education and Careers Curriculum Revision Committees. Implement 140 hours of curriculum integration professional development classes.
2014+	Assist with technology integration for Foreign Language and Science Curriculum Revision Committees. Implement 160 hours of curriculum integration professional development classes.

Goal Three

To provide equitable access to district funded technology resources.

a) *Avondale will maintain an inventory of district-funded technology at each building.*

b) *This inventory will be monitored to ensure equitable access to technology resources among buildings at the individual Avondale instructional levels (i.e. lower elementary, upper elementary, middle school and high school).*

c) *As students progress from one building level to the next, they will have access to technology that is equal to or more sophisticated than the technology that they have had access to in the past.*

District Connectivity

Connectivity:

In order to guarantee the interoperability of the district technology, a fibered Wide Area Network, owned by the District and funded by the technology bond, has been completed. This network will increase the speed of accessibility by all schools and classrooms, not only to the district resources, but also to the Internet.

While buildings and some programs may have networked file servers, the district head-end with the network servers is located in one site.

The district has also been able to install wireless hot spots in various locations in all schools.

Building	Connection	Servers	Internal Wiring	Phone System (installed)	Voice Mail	Cable Connection (to building)
Administration	Fiber	11	Cat 5	Cisco IP	Y	N
Transportation	Fiber	0	Cat 6	Cisco IP	Y	N
Montessori	Fiber	0	Cat 5	Analog		Y
Middle School	Fiber	2	Cat 6	Cisco IP	Y	Y
Meadows	Fiber	1	Cat 6	Cisco IP	Y	Y
Auburn	Fiber	1	Cat 6	Cisco IP	Y	Y
Deerfield	Fiber	1	Cat 6	Cisco IP	Y	Y
Graham	Fiber	1	Cat 6	Cisco IP	Y	Y
Woodland	Fiber	1	Cat 6	Cisco IP	Y	N
High School	Fiber	3	Cat 6	Cisco IP	Y	Y
Alternate High School	Fiber	1	Cat 5	Cisco IP	Y	Y

Current Classroom Technology Availability

Each classroom is equipped with 1 networked teacher station (computer, telephone) and 3 networked student computer stations. Stations include a basic load of Windows XP and MS Office 2003. Curricular specific software per grade level is also included.

Shared resources include:

- Printers: networked Ricoh color and B&W laser printers strategically placed throughout each building.
- Desktop Labs
- Wireless Laptop Carts
- Cameras
- Presentation Smart Carts (data projectors, sound amplification, document cameras, dvd/vcr, wireless microphone, laptop computer).

All K-12 classrooms as have Sound field systems. Specialized hardware is available in appropriate classes: for example, science probes in science classes and scientific calculators in math classes.

Future District/Classroom Technology Configuration

Each classroom will be equipped with 1 networked teacher station (computer and telephone), 1 Tablet PC and 3 networked student computer stations. Classrooms will have mounted data projectors (some rooms with Smart Boards available) and document cameras.

Shared resources will include the following:

- District Video Studio for digitizing of licensed video content and content that we create. Videos will be available to staff on a checkout/check-in basis on demand.
- Network Printers
- Desktop Labs
- Peripheral Mobile Technologies
- Wireless Netbook Carts
- Video Conferencing/Distance Learning Centers in each building

Funding sources for the above projects will include: General Fund, Future Bond Proposal, Grants, and community/corporate partnerships. **The District is committed to the equitable availability of technology in all schools and programs and has implemented all projects with that in mind.**

The Avondale School District plans on investing in Tablet PC technology integrated with wireless network connectivity to increase staff productivity and flexibility to enrich the overall learning experience for our students.

Tablet PC Purchases

Building	**Year 1 Additions**	**Year 2 Additions**
Administration	5	8
Academy	6	2
Middle School	8	23
Auburn	2	5
Deerfield	2	5
Graham	2	5
Woodland	2	5
High School	10	20
District Totals	**37**	**73**

District Technology Software and Supporting Resources

The integration of technology into the curriculum requires more than just the acquisition of hardware. Another component to be considered is software and other resources. The District Technology Committee recommends the district adopt district software standards that reflect the business model of Microsoft Operating Systems and Microsoft Server.

Avondale Schools - District Software Standards		
Level	**Product**	**Location**
All	Microsoft Windows XP (min)	All
	Microsoft 2003 Server	All
	Internet Explorer	All
	Microsoft Office 2003 (min)	All
	Symantec Corporate Edition	All
	Altaris Suite	All
	Shockwave	All
	Macromedia Flash	All
	Windows Media Player	All
	Real Player-basic	All
	QuickTime	All
	Adobe Acrobat Reader 7.05	All
	Dan's Guardian Web Filter	All
	CMaps	All
Staff	Adobe Photoshop Elements 3.0	All

Elementary K-2	Hyperstudio	All
	Inspirations - Kidspirations	All
	KidPix	All
	Winnebago Spectrum	Media Center
	Microsoft Publisher	Teacher / Office
	SchoolsOpen	Teacher / Office

Upper Elementary 3-5	KidPix	All
	Inspirations	All
	Hyperstudio	All
	Winnebago Spectrum	Media Center
	Microsoft Publisher	Teacher / Office
	SchoolsOpen	Teacher / Office
	Grade Book Program -TBD	

Middle School / High School	Inspirations	All (Middle School)
	Winnebago Spectrum	Media Center
	Microsoft Publisher	Teacher / Office
	SchoolsOpen	Teacher / Office
	Grade Book Program-TBD	

Administrative Offices	Microsoft Publisher	All
	SchoolsOpen	All

In addition to software, the district should coordinate the distribution of various resources provide to the staff by the federal, state and local governments. Some of those resources are listed below:

- Oakland Schools video lending library
- Oakland Schools Television Network (OSTN)
- Oakland Network for Education Network
- Access Michigan online subscription
- Michigan Virtual University / High School
- Michigan Teacher Training Initiative
- MINDS Interactive Learning Cooperative
- Avondale School District web site
- United Streaming

Goal Four

To maintain, replace and/or upgrade infrastructure and hardware to meet the district technology standard.

a) *The District Technology Committee will work in cooperation with the Avondale Board of Education to develop a "Technology Cycle of Interdependence" to maintain, replace and upgrade district funded technology resources.*

b) *The district technology staff will prioritize and schedule timely maintenance and repair in an effort to minimize user down time.*

c) *The district will employ one person as a "Network Manager", as well as 2-4 part-time district technicians. Each building will have at least 2 teachers appointed as liaisons to assist with building technology support.*

Maintenance, Repair and Replacement Guidelines

The district maintenance and repair plan is currently a reactionary plan. Staff members complete a troubleshooting request ticket on our intranet based helpdesk management system. Each troubleshooting request ticket contains a priority level to help the IT staff schedule service in an appropriate timeframe.

In order to be more effective, the district technology committee believes technology support must move from a reactionary mode to a proactive mode. Effective technical support is more than just adequate staffing; it is a comprehensive proactive preventative maintenance schedule and process for repair, maintenance, upgrades and replacement. The comprehensive support plan will enable the district to maximize the useful life of computer equipment.

There is more than just the price of a computer to consider when implementing technology in the schools. It is the goal of the district technology committee that the **TOTAL COST** of **OWNERSHIP** (TCO) be considered when planning for technology. Therefore, technical support attempts to address and prepare the district for a preventative approach to using and integrating technology.

The support plan is divided into three areas, **maintenance, repair and replacement or reallocation**. In order to maximize district resources a maintenance cycle was developed for a five-year life expectancy of a computer.

Maintenance: Clean, restore standard software, restore special software, install update to operating system, install update to virus software, install updates to applications, other repairs as needed. *Note*: Maintenance requires the purchase of updates to various software programs and/or operating systems.

Repair: Fix/replace malfunctioning components, clean.

Replacement: Install and configure new computer with current district software, special software applications, remove old computer, perform maintenance and reallocate machine or arrange for disposal.

Repair Process

During the school year the focus of technical support will be on the maintenance and repair of malfunctioning equipment. In order to minimize downtime and maximize productivity the following repair process will be implemented:

Desktop:

a. Staff/Student station has problem:
    a. Check with peer to verify if isolated or building-wide.
    b. Check with peer if "easy" fix is possible.
        Problem solved.
b. Open request ticket via the ticket management system on the district intranet :
    a. Repair Ticket assigned to building technology support liaison
        i. Problem solved. Repair ticket completed.
    b. Repair ticket assigned to part time technology support specialist
        i. Problem solved. Repair ticket completed.
    c. Repair ticket sent to Network Engineer.
        i. Problem solved. Repair ticket completed.
    d. Repair ticket sent to Network Manager.
        i. Problem solved. Repair ticket completed.
    e. Repair ticket sent to Executive Director of Information and Technology Services.
        i. Problem solved. Repair ticket completed.

Network Issues:

1. Open request ticket via the ticket management system on the district intranet :
    a. Repair Ticket assigned to building technology support liaison
        i. Problem solved. Repair ticket completed.
    b. Repair ticket assigned to part time technology support specialist
        ii. Problem solved. Repair ticket completed.
    c. Repair ticket sent to Network Engineer.
        iii. Problem solved. Repair ticket completed.
    d. Repair ticket sent to Network Manager.
        iv. Problem solved. Repair ticket completed
    e. Repair ticket sent to Executive Director of Information and Technology Services.
        v. Problem solved. Repair ticket completed.

Repair Verification:

Once the ticket is completed, the ticket number and documentation will be automatically returned to the help-desk staff database. The help-desk will then send e-mail to the person who originally requested the repair with an available link to report if the ticket was closed in error. In this case, the ticket is re-opened and re-processed.

Technical Support and Staffing

Avondale Schools has historically relied on building administrators and contract service providers to manage and repair district technology. During the 1996-bond implementation, the district provided a teacher (.4) at the middle school, two teachers shared between the five elementary buildings and two .4 teachers at the high school, a two-year release from teaching duties to provide technology integration support for teachers. Due to the lack of technical support, these positions also absorbed most of the troubleshooting and repair issues. The only position extended beyond the original 2-year program is the .4 support position at the High School, which is shared by two teachers.

In April 2000, Plante & Moran was hired by the district to complete a Technology Support Assessment. The consultants met with district staff and administration to gather information about the district's technology state and needs. The consultants then applied the information to two common staffing formulas, *Project Athena* and the *Michigan Technology Staffing Guidelines*. The formula guidelines suggested that Avondale maintain between seven to ten technical/instructional staff for technology.

A less formal survey completed by Oakland Schools in October 2000 shows that Avondale is tremendously under-staffed in technology, in relation to other districts across the county.

In November of 2000, the district created the District Technology Coordinator position and shifted technology responsibilities from the building administrators to the technology coordinator. The coordinator is primarily responsible for instructional hardware, data networks, data processing and administrative computers, and support training in all areas of technology. Until October 2001, the technology coordinator was also responsible for all equipment repair, installation and acquisition. In October 2001, a computer technician position was created. In August of 2002, the district created a part-time district technology technician position.

In 2006, due to district finances, the District Technology Coordinator once was assigned to a principal. At the current time, the technology staff consists of the following positions:

Technology Director: John Pagel (0.5 FTE)

- Supervision of Technology Dept.
- Supervision of Technology Budget
- Coordinate/Implement all Bond Projects and General Fund Equipment Purchases
- Supervision of Software Licensing
- Supervision of Website Management
- Coordination District Technology Professional Development
- Chairperson of District Technology Committee
- Supervision/implementation of the District Technology Plan
- Report to Superintendent and Board of Education

Technology Secretary: Sue Briggs (0.5 FTE)

- Maintenance of all records pertaining to telecommunication
- Maintain and update of the technology budget
- Maintain and update ADS website
- Contact for technology vendors

Network Engineer/Contracted Netarx: Bruce Roosen (0.4. FTE)

- Backups
- Email Server / Spam
- IP Phone Systems
- Antivirus

Technician: Contracted Netarx: Jeff Kish (0.2 FTE)

- Intranet/Internet Server
- Internet Filter
- Active Directory and Server Installation and Maintenance
- Security
- Research and Development
- Helpdesk

Network Manager/Technician: Dave Dawley (1.0 FTE)

- Helpdesk
- Network Backbone Maintenance
- Licensing Management
- Documentation
- Active Directory Maintenance
- Printer Management
- Software Deployment

Information Systems Tech : Mary Zuehlk (1.0 FTE)

- Security
- problem solving and coordinating updates and training with the district management software vendor Schools Open
- Schools Open is the software used for Finance
- Student Management and Human Resources
- submission of files into the State required CEPI databases REP (Registry of Educational Personnel)
- FID (Financial Information Database) and SRSD (Single Record Student Database). Other required student software responsibilities including user maintenance and file submissions to include Pearson Benchmark and Inform, PolyPlot, Study Island MISD-SRSD, MICRS, and OEAA.

Equipment and Software Procurement

The DTC recommends that the Avondale School District adopt the following:

- Adopt district software standards (example included) for Elementary, Middle School, High School and Administrative. Ensure the district is not utilizing any key operating or productivity software that is more than two releases behind current industry standards.
- Maintain the policy for non-standard load software, such that staff can request (via the Technology Helpdesk System) that only legal educational/productivity software can be installed on district equipment. This software will not be supported by the District Technology Department and if conflicts occur, the software may be removed from district equipment.
- Adopt district disposal policy that once technology equipment has exceeded its useable life the equipment will be disposed of in accordance with state and local laws within three months of removal from use.

Equipment Status	**Time**
1. Remove from current use, reallocation to new location	Within 60 days
2. Remove from second location, offer for sale, or salvage parts	Within 60 days
3. Disposal of equipment via recycler	Within 90 days

Goal Five

To provide staff with support, including training and assistance, to effectively utilize technology

a) *Avondale staff will be provided with technical assistance and curriculum support through staffing.*

b) *District Technology Coordinator will facilitate technology/integration training programs for the Avondale School District.*

c) *District will devote at least one annual in-service to technology and curriculum integration training.*

d) *District will hold a technology fair in which educators (both Avondale and outside resources) present technology enhanced lessons and class projects.*

e) *Every staff member will be supported and encouraged to participate in at least 10 hours of technology/integration training annually including sessions both in and out of the district.*

Professional Development

The Committee feels that professional development is vital to the success of the Technology Plan and integration into the curriculum. One of the goals of the Technology Plan is to have staff members take 10 hours of professional development in the area of technology and/or curricular-technology integration. In order to do this the district must find a way to offer the professional development opportunities and support. The ISTE NETS for Teachers and Administrators will be the basis of the program.

Initial thoughts revolve around the development of the two components:

1) Avondale Institute of Professional Development

   Avondale Institute of Professional Development is a series of workshops throughout the school year and summer that focuses on developing basic technology skills, integrating technology into the curriculum and exposing staff to new technologies and teaching methods. It is the goal of the Committee to offer 110 one-hour professional development workshops over the course of the 2011-2014 school years. Through the use of atomic learning and other internet based learning programs, Kalpa hours will be issued for staff who are willing to extend themselves for individual development.

2) Building Technology "Mentors"

   Technology Mentors are building teachers who volunteer to provide building-level support for classroom teachers on the integration of technology. These teachers will be required to attend monthly meetings and training sessions, which focus on curricular integration activities. In exchange for their time, Technology Mentors would be provided incentives to participate in the program. Details would need to be coordinated with various departments and the Avondale Education Association.

Additional opportunities for professional development will be explored through:

- Oakland Schools
- Michigan Virtual University
- State of Michigan
- Michigan Champions program through MACUL
- Other MACUL and Michigan Department of Education projects that become available

Sample of a possible **Avondale Institute of Professional Development Schedule. Please note: In accordance with matrix item #23. In addition to stand alone PD related to technology, we will also have on-going job embedded professional development related technology integration into instruction through Teacher Lab and other vehicles. Please also see PD schedule references in Appendix #1.**

Month	Topic	Audience	Skill Level	Description
August	Web Page Design HP Tablet Training Michigan LearnPort	Teachers and Administrators	All	Learning how to develop web pages to improve communication skills, integrate curriculum and facilitate learning.
August	New Staff Orientation	All New Teachers, Principals, Secretaries	All	Introduction to Avondale Technology including e-mail, network use, etc.
August	4th Grade Learning Module	4th Grade Teacher	Intermediate	Develop integration unit with your peers.
September	MEL asnd Research Tools	All	All	Explore on-line research tool for use in the classroom.
Fall	Intel® Teach for the Future Training II	K-12 Teachers *(ma.x 30 teacher)* *Note: will be repeated in Spring*	All	Learn how to maximize and integrate technology into your curriculum.
November	"Excel"ing in Math	3rd-6th Grade Teachers	Advanced Beginner	Explore the power of Excel and how it can be integrated into your current curriculum

BUDGET

Funding and Total Cost of Ownership

The District Technology Committee has developed a comprehensive budget based on the needs of the Avondale School District. This budget is based on the guidelines recommended by Consortium for School Networking, Michigan Staffing Guidelines, and Gartner Group for technology integration in schools.

The District will utilize multiple funding sources to adequately fund technology acquisition, maintenance, staffing, repair and professional development. Funding sources will include to the extent possible monies from the district operational budget, state and federal grants, e-rate, bonds and milages. The coordination of these dollars will be directed by the District Technology Coordinator in conjunction with the Administrative staff of the district and the Board of Education.

Description:	**2011-2012**	**2012-2013**	**2013-2014**
Enrollment	3830	3900	3950
Foundation Allowance	$ 8,395		
Total Budget	$35,800,000		
Staffing (salaries only)	$ 130,000	$ 193,800	$ 197,676
Staff Benefits	$ 66,500	$ 67,830	$ 69,186
Software	$ 52,000	$ 52,000	$ 52,000
One Network (Oakland Schools)	$ 25,000	$ 25,000	$ 25,000
Hardware	$ 15,000	$ 15,000	$ 15,000
Professional Development	$ 13,500	$ 13,500	$ 13,500
Maintenance	$ 40,000	$ 40,000	$ 40,000
Telecommunications	$ 80,000	$ 80,000	$ 80,000
Bond Project (to be spent on Hardware)	$ 1,100,000		
	Projected PC Replacement		
Total Cost:	**$ 1,522,000.00**	**$487,130.00**	**$492,362.00**
Per student cost	$ 397.39	$124.90	$124.65
Percent of Foundation Allowance	1.0%		
Percent of total budget	1.0%		

EVALUATION

Evaluation

Evaluation is a vital component for the Avondale School District Technology Plan. In order to accurately access the content of the Technology Plan, assessment will be both formative and summative. The evaluation is reflective of the goals and objectives of the Technology Plan and seeks input from students, staff and community members. Evaluation tools may include surveys, course evaluations, questionnaires, interviews, competency checklists, observations and exam results. The Committee will utilize the evaluations on an annual basis to update the strategies and timeline of the Technology Plan. The Avondale Director or Technology is the person responsible for the evaluation of all components of the plan as outlined in matrix # 36.

Current Evaluation Tools

Tool	Description	Date
Teacher Technology Initiative Self-Assessment	Teacher Technology Skill Self- Assessment	Sept 2011
Staff Survey	Survey of all staff about technology use, training and priorities	Sept 2011
Parent Survey	Survey of all parents about technology use, priorities, training and accessibility	Sept 2012
High School Student Survey	Survey of all 9^{th} – 12^{th} grade students about technology use, priorities, training and accessibility	Sept 2011
ISTE- Technology Support Index (http://tsi.iste.org/)	The TSI is a framework that outlines effective technology support strategies. With the TSI self-assessment tool, school districts can appraise the quality of their technology support program and learn about possible improvements they can employ.	August 2011

Future Evaluation Tools

Avondale School District is committed to improving performance, learning and integration at all levels. The District Technology Council has developed an evaluation schedule and is working to develop the tools necessary to analyze the impact of technology and this technology plan. Many components of the evaluation are on an annual basis, however they are composed of smaller on-going components. These tools and the evaluation will require annual assessment of their validity and reliability to report the information they are intended for. Strategies for addressing unmet or incomplete goals as outlined in matrix #37 will be developed collaboratively through the District Technology Committee and authorized by the Superintendent and Board of Education. We will use best practices as outlined by ISTE and the Oakland Schools Technology Dept. to address and fulfill all goals that are outlined in this Technology Plan.

Objective	Outcomes	Performance Indicators	Data Sources	Completion Date of Evaluation
High school senior technology competency component	Technology exit outcome goals in place at 6th and 8th grade	Exiting 6th graders type at least 15 wpm with at least 80% accuracy and can complete basic word processing skills including login, open, save, spell check, and print (see Technology Performance Indicators for more).	*New 6th grade competency checklist	May. 2011
		Exiting 8th graders will type at least 20 wpm with at least 80% accuracy and can complete basic spreadsheet & database skills including data entry, basic formulas, and basic functions (see Technology Performance Indicators for more).	*New 8th grade competency checklist	May. 2011
	Present high school technology competency component is updated	New competency exam will reflect current technological skills	Current Competency exam	Jan. 2011
	Updated technology component is approved by school board	Implementation of new technology component for current Freshmen class	*Updated competency exam	Jan. 2011
The District will gain an understanding of how high school students feel they have been prepared for a technological society.	High School Seniors will complete a Technology exit survey	90% or better of Senior class will turn in completed survey	*Technology exit survey results	April, 2011
	Technology component will be included in follow-up career survey		*Career Survey results	April, 2012

Objective	Outcomes	Performance Indicators	Data Sources	Completion Date of Evaluation
Technology will be integrated into the Avondale daily instructional and non-instructional activities.	Technology integration included in current curricular documents	Technology checklist completed when each curricular area completes curriculum cycle	Updated Curriculum	Ongoing (see curriculum cycle)
	Professional development to facilitate instructional and non-instructional integrated activities	Professional Development opportunities will be offered monthly. District-wide Technology in-service to occur annually.	Professional Development Evaluation forms	Evaluated on Quarterly basis
	Technology integration will be encouraged as component of teacher evaluation process	Administrators encourage staff to include technology goals in Development Plan	Human Resource records	Jan. 2011
Objective	**Outcomes**	**Performance Indicators**	**Data Sources**	**Completion Date of Evaluation**
equitable access to district funded technology resources	Inventory of district-funded technology resources	A district-wide inventory will be completed bi-annually by an outside source	District inventory Report	March 2011
	Inventory will be monitored to ensure equitable access among buildings at grade level	Building levels are equitable (i.e. all elementary schools are equitable in hardware & software **quantity** (per student ratio) **and quality**	District inventory	2011-14
	Students will a progression of technology	As students progress, access to technology is equal to or better than what they have had access to in past	District inventory	2011-14
Objective	**Outcomes**	**Performance Indicators**	**Data Sources**	**Completion Date of Evaluation**
Infrastructure and hardware will be maintained, replaced and/or upgraded to meet the district technology standard.	Develop Technology Cycle of Interdependence to maintain, replace, and upgrade district funded technology resources	(See maintenance, repair, and replacement guidelines)	*Technology Replacement Schedule	2011-14
	District technology staff will prioritize and schedule timely maintenance and repair to minimize down time	Downtime is on average, no more than 1 day network, 3 days desktop equipment.	District maintenance requests and documented turn-around time	2011-14

ACCEPTABLE USE POLICY
CHILDREN'S INTERNET PROTECTION ACT
FILTERS: Barracuda and Semantec

Acceptable Use Policy

Introduction:

The Avondale School District has adopted four policies that govern the use of technology and the Internet in Avondale. Policies 7540, 7540.01, 7540.02 and 7540.03 requires that every technology user complete an Acceptable Use of Technology (AUT) form, prior to being allowed access to any district technology.

The AUT is customized for the following three segments of the district technology users:

- Student Users
- Staff Users
- Volunteer Users

In addition to the AUT, the Avondale School District has adopted the Communication Release Guidelines. These guidelines govern the use of student images, names and work on the district website and in all district communications.

Validation of the Acceptable Use Policy

All network users in the Avondale School District will be required to agree to the terms of the acceptable use policy prior to using technology resources.

Verification for students will come in two forms:

1. All users will be required to digitally sign the acceptable use policy during their first login session.
2. All students will be required to sign a paper acceptable use policy at the time of their registration.

Verification for staff and volunteer users will also come in two forms:

1. All users will be required to digitally sign the acceptable use policy during their first login session.
2. All staff will be required to sign a paper acceptable use policy at the time of their employment.
3. All staff will be required to sign an acceptable use policy at the building level should they elect to use district technology resources.

BOARD POLICIES

COMPUTER TECHNOLOGY AND NETWORKS

The District is committed to the effective use of technology to both enhance the quality of student learning and the efficiency of District operations. It also recognizes that safeguards have to be established to ensure that the District'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 ensure that staff and students are making appropriate and ethical use of computers and other equipment as well as any networks that may be established.

The Superintendent shall also ensure that both staff and students are adequately informed about disciplinary actions that will be taken if District technology and/or networks are abused in any way or used in an illegal or unethical manner.

Adopted:3/95

USE OF INTERNET AND ELECTRONIC MAIL

The District recognizes the efficiencies that can result from the use of technology and authorizes the establishment of an Internet access and electronic mail for students and staff.

Because the Internet and electronic mail can lead to violations of privacy, the Board has established the following policy concerning the use of the Internet and electronic mail by members of the school community.

A. The District shall issue a password to each person authorized to use the Internet access and electronic mail. System users shall have no expectation of privacy in their communications and shall not have the ability to deny access to their electronic mail by the Superintendent.

B. Although the District will not monitor the content of electronic mail messages, the Superintendent is authorized to develop a monitoring system for special circumstances where users appear to have violated the acceptable use guidelines.

C. The Superintendent is to identify which individuals are to have access to the District's Internet and electronic mail system and ensure that each such person is provided a copy of this policy, and agrees, in writing, to its terms.

D. The District considers the use of technology as a privilege and reserve the right to restrict or revoke access to students or staff who do not adhere to these guidelines.

Adopted 3/96

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 School District's Mission Statement.

The purpose of the web site 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 usable by students and teachers to support the curriculum and School District Objectives as listed in the District'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 District's Mission Statement, Educational Philosophy, and the School Improvement Process.

When the content includes a photograph or information relating to a student the District will abide by the provisions of Policy 8330 - Student Records.

All links included on the pages must also meet the above criteria.

Under no circumstances is a web site to be used for commercial purposes 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 District-affiliated servers.

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

Adopted 10/99

INTERNET USE BY STUDENTS AND STAFF

The purpose of this policy is to facilitate network (electronic mail and electronic bulletin board) and Internet access (all referred to as "Network"), for educational purposes for the staff and students where appropriate. As such, this access should (1) assist in the collaboration and exchange of information, (2) facilitate personal growth in the use of technology, and (3) enhance information gathering and communication skills. For the purpose of this policy, "user" includes both staff and students.

The use of the Network is a privilege, which may be revoked by the District at any time and for any reason. Appropriate reasons for revoking privileges include, but are not limited to, the altering of system software or the placing of unauthorized information, computer viruses or harmful programs on or through the computer system in either public or private files or messages. The District reserves the right to remove files, limit or deny access, and refer the user for other disciplinary actions.

The District reserves all rights to any material stored in files which are generally accessible to others and will remove any material which the District, at its sole discretion, believes may be unlawful, obscene, pornographic, abusive, or otherwise objectionable. A user will not knowingly use his/her District-approved computer account/access to obtain, view, download, or otherwise gain access to such materials.

In District locations where public access is granted, students are required to use only those computers assigned for student use. In public areas having computer use available, computers shall be clearly marked in an unalterable manner: "For Students," or "For General Public." Students who are not eighteen (18) years of age or accompanied by an adult shall not use computers marked "For General Public." Each unauthorized use is a violation of this policy.

District computers will utilize a system or method that is designed to prevent a minor from viewing obscene matter or sexually explicit matter that is harmful to minors. The District may use passwords and or filters.

All information services and features contained on District or Network resources are intended for the private use of its registered users and any use of these resources for commercial-for-profit or other unauthorized purposes (i.e. advertisements, political lobbying), in any form, is expressly forbidden.

The District and/or Network resources are intended for the exclusive use by their registered users. The user is responsible for the use of his/her account/password and/or access privilege. Any problems, which arise from the use of a user member's account, are the responsibility of the account holder. Use of an account by someone other than the registered account holder is forbidden and may be grounds for loss of access privileges.

Any misuse of the account may result in suspension of the account privileges and/or other disciplinary action determined by the District. Misuse shall include, but not be limited to:

A. intentionally seeking information on, obtaining copies of, or modifying files, other data, or passwords belonging to other users;

B. misrepresenting other users on the Network;

C. disrupting the operation of the Network through abuse of the hardware or software;

D. malicious use of the Network through hate mail, harassment, profanity, vulgar statements, or discriminatory remarks;

E interfering with others' use of the Network;

F. extensive use for noncurriculum-related communication;

G. illegal installation of copyrighted software;

H. unauthorized down-sizing, copying, or use of licensed or copyrighted software;

I. allowing anyone other than the account holder to use an account.

The use of District and/or Network resources are for the purpose of (in order of priority):

A. direct support of the academic program;

B. telecommunications;

C. general information;

D. recreational.

All of the above uses should still be related to the educational or business mission of the District.

The District and/or Network does not warrant that the functions of the system will meet any specific requirements the user may have, or that it will be error free or uninterrupted; nor shall it be liable for any direct or indirect, incidental, or consequential damages (including lost data, information, or time) sustained or incurred in connection with the use, operation, or inability to use the system.

The user will diligently delete old mail messages on a regular basis from the personal mail directory to avoid excessive use of the electronic mail disk space.

The District and/or Network will periodically make determinations on whether specific uses of the Network are consistent with the acceptable-use practice. The District and/or Network reserve the right to log Internet use and to monitor electronic mail space utilization by users.

The user may transfer files from information services and electronic bulletin board services. For each file received through a file transfer, the user agrees to check the file with a virus- detection program before opening the file for use. Should the user knowingly transfer a file, shareware, or software, which infects the Network with a virus and causes damage, the user will be liable for any and all repair costs to make the Network once again fully operational and may be subject to disciplinary action.

The user may not transfer file, shareware, or software from information services and electronic bulletin boards without the permission of the Technology Coordinator. The user will be liable to pay the cost or fee of any file, shareware, or software transferred, whether intentional or accidental, without such permission.

The District reserves the right to log computer use and to monitor fileserver space utilization by users. The District reserves the right to remove a user account on the Network to prevent further unauthorized activity.

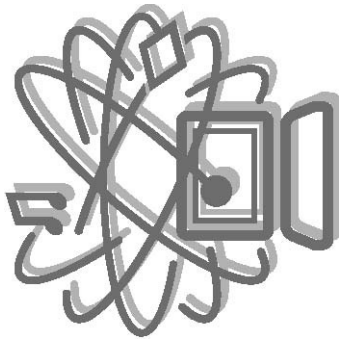
The user is responsible for the proper use of the equipment and will be held accountable for any damage to or replacement of equipment caused by abusive use.

M.C.L.A. 397.606 (6)

Adopted 8/01

ACCEPTABLE USE OF TECHNOLOGY

Students/Staff/Volunteer



INTRODUCTION

The Avondale School District is committed to the effective use of technology to enhance both the quality of student learning and the efficiency of district operations.

This Acceptable Use of Technology Guideline is published to ensure that staff, students and volunteers are making appropriate and ethical use of district technology. (Avondale Board of Education Policy #7540, March 1995 and Policy #7540.1, March 1996, and Policy #7540.03, June 2001)

*Acceptable Use of Technology guidelines are subject to change based upon the arrival of new technologies.

GENERAL TECHNOLOGY GUIDELINES:

• Only authorized individuals will be allowed to use any hardware or software.
• Individuals using technology will accept responsibility for the preservation and care of that hardware and software.
• Individuals will use networks and technology for the support of education, research and information consistent with the goals of the district.
• Individuals who receive passwords are responsible for those passwords and are liable for activity associated with those passwords.
• As a representative of Avondale Schools on a non-private system, you may be alone at your computer, but what you say and do can be viewed globally. E-mail is not private.
• Messages relating to or in support of illegal activities must be reported.

USERS WILL:

• *Obey all copyright Laws.*
• *Follow building rules and District Policy.*
• *Keep passwords confidential.*
• *Report any misuse of networks and technology including viruses, illegal access to accounts, or illegal tampering.*

USERS WILL NOT:

• *Use the Internet to send or receive messages that are not consistent with District Policy.*
• *Allow others to use their accounts to access the Internet or any school network.*
• *Use district technology for commercial or profit purposes.*
• *Use district technology to obtain illegal copies of software, printed materials or other materials to which they should not have ownership.*
• *Tamper with computer or network systems in a way that will make them either temporarily or permanently inoperable.*
• *Publish school-related material to the Internet without approval of the District Technology Coordinator.*
• *Remove, relocate, modify or copy any hardware, software, or other people's files without the approval of the District Technology Coordinator.*
• *Install software on school district computers.*
• *Scan, access or print pornographic or obscene material.*
• *Use addresses, phone numbers or individually identified pictures of students or colleagues without permission.*
• *Reveal personal addresses or phone numbers.*

Avondale School District

Acceptable Use of Technology Agreement

Staff/Volunteer

Access of use of Technology ,including the Internet, is a conditional right.

Failure to follow these guidelines will result in a loss of access to technology, disciplinary action consistent with district policy and/or criminal prosecution.

Before using district technology, read and sign this document.

I, _____ (PLEASE PRINT)

Have read the Avondale School District Acceptable Use of Technology Guidelines and agree to its Conditions.

This signed Agreement must be returned to your Administrator prior to using any district technology equipment or e-mail service.

USERS WILL NOT:

- *Use the Internet to send or receive messages that are not consistent with District Policy.*
- *Allow others to use their accounts to access the Internet or any school network.*
- *Use district technology for commercial or profit purposes.*
- *Use district technology to obtain illegal copies of software, printed materials or other materials to which they should not have ownership.*
- *Tamper with computer or network systems in a way that will make them either temporarily or permanently inoperable.*
- *Publish school-related material to the Internet without approval of the District Technology Coordinator.*
- *Remove, relocate, modify or copy any hardware, software, or other people's files without the approval of the District Technology Coordinator.*
- *Install software on school district computers.*
- *Scan, access or print pornographic or obscene material.*
- *Use addresses, phone numbers or individually identified pictures of students or colleagues without permission.*
- *Reveal personal addresses or phone numbers.*

Violations of the Acceptable Use of Technology guidelines for Avondale School District will result in disciplinary actions and/or termination of employment upon the completion of due process.

COMMUNICATION

inkjet printers at every workstation and providing centralized copy stations throughout the district we are now able to monitor and predict the cost of printing district wide. Avondale negotiated the best cost per copy (CPC) with Ricoh Business Systems. We purchased the equipment at REMC Government pricing and we now pay for no supplies, our costs are consistent based on the number of pages printed. This model will allow the district to monitor and control printing centrally across the district and allow exact projections of the cost.

The complete printing solution was be place in July of 2011. By replacing all the duplicating machines that have been leased from several different companies with the newest technology from Ricoh Business Systems we have placed the largest and most capable machines at each building. These MFP's are capable of scanning color and black and white documents directly into folders, e-mail or USB storage devices. In concert with print software this allows control of desktop options for printing We expect significant savings and improved functionality for our district staff.

Communication/Public Relations

The District Technology Committee recognizes the importance of communication and addresses it on three levels. Community, staff and students are the three focus groups that will be considered for communicating information. Avondale School District currently relies on the following communication tools to share information with the identified groups; web site, e-mail, newsletters, public meetings, staff meetings, parent nights, and board of education meetings. Many of these activities and tools are coordinated through the office of Community Relations. Please note: In accordance with matrix requirement #17, we plan to share the approved Technology Plan via the communication tools as outlined above.

Web Site

Avondale School District has developed an enhanced informational web site for the community, staff and students. The responsibility for this site in the past has been spread amongst numerous departments and staff. Therefore, it has been difficult to ensure reliable and accurate information is available on the site.

The district technology department has issued access to each staff member in order to maintain a personal page on the district site for communication with the public. The district technology department will continue to provide training and support to the staff on usage of the website administration utilities.
The Technology Plan is included on the web site.

Other Communication

The District Technology Committee recommends that the Avondale School District continue to use all methods of communication listed above to showcase and communicate the activities of the Avondale School District. In addition, the district should explore the possibility of fully utilizing the district radio station and MediaCast on-demand district TV station to communicate with the community.

APPENDIX

Part I: Avondale School District Technology Strategic Action Plan

Action Plan:

Strategy Number: Technology (#3)
Plan Number: #1 (Professional Development)

Date: 4-4-09

Strategy: We will maximize utilization of technology in all areas of the organization.

Specific Result: All teachers will receive a minimum of 5 hours per year of training, along with periodic refresher training throughout the year.

#	Action Step (number each one)
1.	A group of teacher trainers will be identified to carry out the instruction of teachers.
2.	One District Trainer will conduct a "Trainer of Trainers" workshop so that at least one teacher per elementary building, and at least 3 people per Middle and High school building, are able to carry out the teaching outline effectively.
3.	On the first full in-service day of each school year, all teachers will receive a day of training, utilizing all new district technology resources. (projectors, interactive white boards, United Streaming, Zangle, Video Conferencing, Web Site development, Share Point, phone system, district e-mail (Outlook Training)
4.	Training will take place in a small group, lab setting.
5.	On or before Records Day, teachers will receive refresher training on District Technology Resources.
6.	Trainers will be granted release time in order to provide support to staff within their school community.

7.	The Technology Committee will develop a series of breakout sessions to be offered mid-year to teachers to be selected dependent on teacher needs.
8.	Sessions will be developed with defined grade level appropriate agendas.

Action Plan

Strategy Number: Technology (#3)
Plan Number: #2.1 (Hardware / Furniture)

Date: 4-4-09

Strategy: We will maximize utilization of technology in all areas of the organization.

Specific Result: Existing computers will be replaced.

#	Action Step (number each one)
1.	The technology department will determine the number of computers needing replacement.
2.	The technology director will determine the specifications needed for new computers.
3.	A recommendation for funding will be made by the technology committee (grants, bond, etc.)
4.	The technology director will send out the computers for bid and review the bid with the technology department.
5.	The Superintendent and the board of education will award the bid.
6.	The technology department will determine the phase-in/delivery and distribution timeline of the computers.

Action Plan

Strategy Number: Technology (#3)
Plan Number: #2.2 (Hardware / Furniture:

Date: 4-4-09

Strategy: We will maximize utilization of technology in all areas of the organization.

Specific Result: Sound fields will be placed in every classroom.

#	Action Step (number each one)
1	The building principal will determine the number of physical classroom.
2	The technology director will determine the specifications needed for sound fields.
3	A recommendation for funding will be made by the technology committee (budget, grants, bond, etc.)
4	The technology director will send out the sound fields for bid and review the bid with the technology department.
5	The Superintendent and the board of education will award the bid.
6	The technology department will determine the phase-in/delivery and distribution timeline of the sound fields.

Action Plan

Strategy Number: Technology (#3)
Plan Number: #2.3 (Hardware / Furniture)

Date: 4-4-09

Strategy: We will maximize utilization of technology in all areas of the organization.

Specific Result: Sound in cafeterias will be upgraded.

#	Action Step (number each one)
1.	An outside consultant will evaluate the quality of sound in all cafeterias district-wide and determine if an upgrade is needed and if so, what equipment is necessary.
2.	Based on those recommendations, the technology director, in conjunction with the stake-holders (music, theatre instructors) will select appropriate equipment.
3.	The business office will determine funding.
4.	A company will install new equipment.

Action Plan

Strategy Number: Technology (#3)
Plan Number: #2.4 (Hardware / Furniture)

Date: 4-4-09

Strategy: We will maximize utilization of technology in all areas of the organization.

Specific Result: A district wide wireless system will be put in place.

#	Action Step (number each one)
1.	A consultant will evaluate the best possible scenario for wireless coverage in all buildings within the district and make recommendations based on the findings.
2.	Based on those recommendations, the technology director and technology department will select appropriate equipment.
3.	A recommendation for funding will be made by the technology committee (budget, grants, bond, etc.)
4	The technology director will send out the wireless equipment for bid and review the bid with the technology department.
5.	The Superintendent and the board of education will award the bid.
6.	The technology department will determine the phase-in/delivery and distribution timeline of the wireless equipment.

Action Plan

Strategy Number: Technology (#3)
Plan Number: #2.5 (Hardware / Furniture)

Date: 4-4-09

Strategy: We will maximize utilization of technology in all areas of the organization.

Specific Result: Redesign and furnish computer labs at all schools.

#	Action Step (number each one)
1.	A study will be done by the technology committee to determine the optimal arrangement for computers in a learning environment.
2.	Based on those findings, the technology committee will determine what furniture will best meet the needs of students in each building.
3.	The technology committee will also determine what changes need to be made to the electrical and network configuration.
4.	A recommendation for funding will be made by the technology committee (budget, grants, bond, etc.)
5.	The technology director will send out the furniture and equipment to bid.
6.	The Superintendent and the board of education will award the bid.

7.	The technology department will determine the phase-in/delivery and distribution timeline of the furniture/equipment.

Action Plan

Strategy Number: Technology (#3)
Plan Number: #2.6 (Hardware / Furniture)

Date: 4-4-09

Strategy: We will maximize utilization of technology in all areas of the organization.

Specific Result: A long-term printer solution will be put into place.

#	Action Step (number each one)
1.	A study will be done by the technology committee to determine the efficiency of the Ricoh printer contract.
2.	Based on those findings, the committee will recommend continuation of Ricoh contract OR another printer solution.
3.	The recommendation and monies required will be referred to the business office to be included in the district budget.

Action Plan

Strategy Number: Technology (#3)
Plan Number: #2.7 (Hardware / Furniture)

Date: 4-4-09

Strategy: We will maximize utilization of technology in all areas of the organization.

Specific Result: Mounted interactive white boards will be multiple in several locations in each building.

#	Action Step (number each one)
1.	The technology committee will determine the placement of interactive white boards in each building.
2.	The technology director bids the interactive white boards.
3.	A third party will be hired to install the interactive white boards.

Action Plan

Strategy Number: Technology (#3)
Plan Number: #2.8 (Hardware / Furniture)

Date: 4-4-09

Strategy: We will maximize utilization of technology in all areas of the organization.

Specific Result: Replace laptops in laptop carts.

#	Action Step (number each one)
1	The technology department will determine the number of laptops needing replacement. The possibility of netbooks will also be looked at as an alternative to refurnishing some of laptop carts.
2	The technology director will determine the specifications needed for new laptops.
3	A recommendation for funding will be made by the technology committee (grants, bond, etc.)
4	The technology director will send out the laptops/netbooks for bid and review the bid with the technology department.
5	The Superintendent and the board of education will award the bid.
6	The technology department will determine the phase-in/delivery and distribution timeline of the laptops.

Action Plan

Strategy Number: Technology (#3)
Plan Number: #3.1 (Media Services)
Date: 4-4-09

Strategy: We will maximize utilization of technology in all areas of the organization.

Specific Result: A library on the district shared drive will be created to allow teachers to collaborate and explore available technology resources.

#	Action Step (number each one)
1.	Training will be selected to trainers in each building in order to capture lessons, upload and catalog them to the video distribution Library
2.	Trainers will train and support their building staff in capturing uploading and cataloging of lessons into the Video Distribution Library to be shared throughout the district.
3.	Training will be developed in order for teachers to be supported and encouraged to utilize the Video Distribution Library.
	NOTE: this sounds similar to the library plan for new circulation/catalog software. This software would enable all shareholders to view our holdings online.

Action Plan

Strategy Number: Technology (#3)
Plan Number: #3.2 (Media Services)
Date: 4-4-09

Strategy: We will maximize utilization of technology in all areas of the organization.

Specific Result: Add 1.0 FTE certified Library Media Specialist to the high school for teacher collaboration and student learning.

#	Action Step (number each one)
1	The district-wide technology committee will present a plan for additional services/support that will be provided through a change of staffing.
2	After the Superintendent approves the plan, appropriate funding will be requested through the annual budget process or other funding streams.
3	Once the annual budget is approved, the Library Committee will submit to the curriculum office the specifications for additional services being provided and more clearly defined roles.
4	The Human Resource office will fill the positions with qualified individuals.
5	Library Media personnel will meet on a regular basis to collaborate to insure that a quality library media program is in place across the district.

Action Plan

Strategy Number: Technology (#3)
Plan Number: #3.3 (Media Services)
Date: 4-4-09

Strategy: We will maximize utilization of technology in all areas of the organization.

Specific Result: Add 0.5 Library Media/Tech Assistant at each building to ensure library media centers are available to students every day.

#	Action Step (number each one)
1	The district-wide technology committee will present a plan to the Superintendent of schools for additional services that will be provided through an increase of staffing.
2	After the Superintendent approves the plan, appropriate funding will be requested through the annual budget process or other funding streams.
3	Once the annual budget is approved, the Library Committee will submit to the curriculum office the specifications for additional services being provided and more clearly defined roles.
4	The Human Resource office will fill the positions with qualified individuals.
5	Qualified personnel will be appropriately trained and mentored.
6	Library Media personnel will meet on a regular basis to collaborate to insure that a quality library media program is in place across the district.

Action Plan

Strategy Number: Technology (#3)
Plan Number: #3.4 (Media Services)
Date: 4-4-09

Strategy: We will maximize utilization of technology in all areas of the organization.

Specific Result: Increase accessibility to library collections for students and staff using a Web based program for searching and managing library collections.

#	Action Step (number each one)
1	A county-wide committee is researching and selecting an appropriate software program for interested Library Media Centers throughout Oakland County.
2	The district-wide technology committee will present a plan to the Superintendent of schools for said Library Media software.
3	After the Superintendent approves the plan, appropriate funding will be requested through the annual budget process or other funding streams.
4	Once the annual budget is approved, the Library Committee will submit to the appropriate office the specifications for implementation and training of the software.
5	The board of education approves the purchase and the software is implemented.

Action Plan

Strategy Number: Technology (#3)
Plan Number: #4.1 (Video Distribution/Learning)

Date: 4-4-09

Strategy: We will maximize utilization of technology in all areas of the organization.

Specific Result: Staff will use video conferencing/distance learning to address and enhance curriculum.

#	Action Step (number each one)
1	A library of available resources will be started on a district shared drive.
2	Set up internal (school to school) video conferencing library (Example: 4th grade -/7th grade interactions).
3	Set up external (district to district) video conferencing library
4	Set up shared library of content area lessons. (4th grade lesson on fractions) *Additional resources will be added to each area as they become available.

Action Plan

Strategy Number: Technology (#3)
Plan Number: #4.2 (Video Distribution/Learning)

Date: 4-4-09

Strategy: We will maximize utilization of technology in all areas of the organization.

Specific Result: Design and maintain a district video distribution system.

#	Action Step (number each one)
1.	Design and install classroom endpoint video viewing configuration (IE. Mounted data projector and sounds system linked to teacher workstation).
2.	Design and install video distribution head end and storage solution.
3.	Digitize and catalogue existing curricular video content to distribution head end.

4.	Program video distribution head end to search and distribute on-demand video content (IE. Digitized videos, United Streaming, etc.).
5.	Design and install video encoders to provide pre-approved distribution of select cable television channels to the classrooms district-wide.
6.	Design and install videoconference/distance learning mobile stations for each building.

Action Plan

Strategy Number: Technology (#3)
Plan Number: #5.1 (Software)
Date: 4-4-09

Strategy: We will maximize utilization of technology in all areas of the organization.

Specific Result: Software will be utilized to enhance student learning.

#	Action Step (number each one)
1	Software integration and adoption will be incorporated into the curriculum development process.
2	Software needs should be included as a part of the curriculum budget.
3	Implement discretionary software budget to be used for software upgrades.

4	Software resources will be used to supplement the curriculum (United Streaming, instructional website, Moodle, Sharepoint, etc.)
5	Staff will utilize available online textbooks and support components and make available to students. Professional development should be provided for teachers.

Action Plan

Strategy Number: Technology (#3)
Plan Number: #5.2 (Software)
Date: 4-4-09

Strategy: We will maximize utilization of technology in all areas of the organization.

Specific Result: Utilize Zangle as a complete student information system.

#	Action Step (number each one)
1	Define standards for data input to include necessary personal information for parents and students.
2	Standards will be developed for component utilization (student discipline, attendance, grade book, etc.)

3	Professional development should be comprehensive, ongoing and incorporate all relevant features.
4	Develop guidelines for parent access to student academic progress.

Action Plan

Strategy Number: Technology (#3)
Plan Number: #5.3 (Software)
Date: 4-4-09

Strategy: We will maximize utilization of technology in all areas of the organization.

Specific Result: The technology committee will assess new technologies as needed.

#	Action Step (number each one)
1.	As new technologies become available and/or are requested, the committee will evaluate and possibly pilot these technologies for use in the district.
2.	Avondale School district will address professional development for technology through a combination of equipment specific training, curricular/instructional training and on-going job embedded training. An example schedule of topics is included below: **<u>Equipment specific training</u>** Projector Fall 2011 Ip Telephony Fall 2011 Document Cameras Fall 2011 Peripheral Devices (iPads etc.) Fall 2012 And classroom integration Fall 2012 Interactive White Boards Fall 2013 **<u>Instructional Training</u>** Keyboarding Fall 2011 Elementary music Fall 2011 Office 2010 Fall 2011 Language Arts Tech Fall 2012 Math Fall 2013 Science Fall 2014 **<u>Ongoing Job Embedded Prof. Dev.</u>** MediaCast 2011-2014 Teacher Lab 2011-2014 Interactive White Boards 2011-2014

Appendix Part II: Sample Lessons

Michigan Challenge – State Symbols

Welcome to the Michigan Challenge. Your goal is to explore the following Internet sites and answer the questions. You will earn points for every correct answer.

Go to the following web page to begin your challenge.

State Symbols http://www.sos.state.mi.us/history/history/html

Scroll down to the bottom of the page to find the heading "Stuff about Michigan". Click on the link named State Symbols.

Answer the following questions from the Michigan State Symbols home page:

1. How many official state symbols are listed? _____

2. What is the scientific name for the white pine? _____

3. List the names of four of your favorite state symbols:

a. _____

b. _____

c. _____

d. _____

4. Using the information under our state flower, Michigan is ranked _____ in the nation for apple production.

5. Name the governor that was featured on our states' first flag. _____

6. Find our State Coat of Arms. There are three mottos. Explain what each motto means:

E Pluribus Unum _____

Tuebor _____

Si Quaeris Peninsulam Amoenam Circumspice

_____

_____

7. The Petoskey Stone is actually _____ from a coral reef found in the Lower Peninsula.

8. What year was the brook trout adopted as our state fish? _____

9. How many types of soil are found in our state? _____

10. What group of people was most successful in adopting the white-tailed deer as our state mammal? _____

Congratulations!!! You have completed the State Symbols portion of the Michigan Challenge. Good Luck on the other Challenges.

Great Lakes Module

Michigan government has asked you to develop a travel brochure that highlights the Great Lakes. The tri-fold brochure must include the following elements:

During this web quest you will go to different websites to gain knowledge about each individual Great Lake.

At the end of your research you will create the travel brochure highlights each lake with the information that you gained from your research.

Process

1. Your teacher will provide you with the information sheet for note taking. (LINK)
2. Use the links below to visit the sites that contain the information that you need on the Great Lakes
3. Take notes using the information sheet on each Great Lake finding ALL information requested
4. Now that you have gathered your information – you will create the brochure

The brochure should give the important information to the governor about the Great Lakes.

- Fold your paper into thirds and on the front flap title your brochure. It must include your title, name, date, and your teacher's name.
- Use the other five sections of your brochure to highlight each Great Lake. Include an illustration and all the information gathered.

Resources and Links

- Encyclopedia
- Social Studies book
- Atlas

http://www.geo.mtu.edu/rs/avhrr/great_lakes/

http://www.great-lakes.net/

http://www.sos.state.mi.us/kidspage/index.html

http://isd.ingham.k12.mi.us/~99mich/mihigh.html

http://www.chippewa-hills.k12.mi.us/~pjdurbin/Lake_Huron/lake_huron.htm

http://www.chippewa-hills.k12.mi.us/~pjdurbin/Lake_Michigan/lake_michigan.htm

http://www.chippewa-hills.k12.mi.us/~pjdurbin/Lake_Superior/lake_superior.htm

Evaluation – Click here to see how you will be evaluated Rubric (link)

Conclusion: Now that you have researched the Great Lakes, please share this important information with your classmates and the governor☺

Rubric – Great Lakes Module

Cover		
Correct Title and author	5	_____
Illustration	5	_____
Neatness	5	_____
Originality	5	_____
Great Lake – Huron		
Illustration	3	_____
Information	10	_____
Neatness	3	_____
Great Lake – Ontario		
Illustration	3	_____
Information	10	_____
Neatness	3	_____
Great Lake – Michigan		
Illustration	3	_____
Information	10	_____
Neatness	3	_____
Great Lake – Erie		
Illustration	3	_____
Information	10	_____
Neatness	3	_____
Great Lake - Superior		
Illustration	3	_____
Information	10	_____
Neatness	3	_____

100 Points _____

Great Lakes Information Sheet

Lake Huron

Size	
Shape	
Borders	
Temperature	
Uses (Examples: Economy, Recreation)	
Special Features	
Interesting Information	

Lake Ontario

Size	
Shape	
Borders	
Temperature	
Uses (Examples: Economy, Recreation)	
Special Features	
Interesting Information	

Lake Michigan

Size	
Shape	
Borders	
Temperature	
Uses (Examples: Economy, Recreation)	
Special Features	
Interesting Information	

Lake Erie

Size	
Shape	
Borders	
Temperature	
Uses (Examples: Economy, Recreation)	
Special Features	
Interesting Information	

Lake Superior

Size	
Shape	
Borders	
Temperature	
Uses (Examples: Economy, Recreation)	
Special Features	
Interesting Information	

NOTES: