

In the Westwood Community School District, the learning community will be technologically literate life-long learners. Learners will be able to interact successfully in a technological environment to achieve their personal, educational, and workplace goals. They will skillfully use technology to access, retrieve and use information school-wide, communitywide, nationally, and internationally.

## **BELIEFS**

- Students need to be able to use a wide variety of technological tools to enhance their future success as students and workers.
- It is imperative for all students to have access to information via technology as a basis for lifelong learning.
- It is essential for all learners, including educators, to process and manage information through the skillful use of technology.
- Skillful use of technology supports the development of process skills such as flexibility, adaptability, critical thinking, problem solving and collaboration which are essential to success in our rapidly changing information age.
- Networked technology systems permit efficient and effective communications within and outside the district.
- Technology allows us to better serve the diverse learning styles of our students.
- Technology maximizes productivity and efficiency and enables schools to better prepare students for future learning.
- Our schools must prepare students for today's workplace and the workplace of the future.
- Our schools must prepare students to be lifelong learners who are responsible for their own learning, skilled in accessing and processing information, confident in using technological tools, able to solve complex problems alone or collaboratively, capable of being creative and innovative, and able to communicate locally, nationally, and worldwide.

## **GOALS:**

- **Forward Thinking Vision:** The Westwood Community School District will work to build a shared community-based vision for technology that prepares students to learn, work, and live successfully in the digital age.
- **Effective Teaching and Learning:** The learning environment will be characterized by powerful project-based experiences and problem solving using real-world data sets.

- **Educator Proficiency:** Educators will demonstrate proficiency in implementing, assessing, and supporting a variety of effective practices for teaching and learning supported by information resources and technology.
- **Equal Equity:** Information and technology resources will address the digital divide by ensuring that all students are engaging in an educational program aligned to the vision.
- **Increased Access:** The district will continue to deploy high-tech resources to ensure that students and staff have the hardware, software, and network access needed to perform multi-media tasks that promote high productivity in their work and higher-level learning.
- **Systems and Leadership:** The district will continue to support existing policies and develop new processes to ensure that effective technology systems support a high-performance learning organization.

## **RATIONALE**

To accomplish our vision for increased student learning with the use of technologies, our plan must include and lead to success in the following areas:

### **EQUAL ACCESS FOR THE LEARNING COMMUNITY**

- Establishes basic technological networking capabilities provided at all sites.
- Provides for minimum standards of hardware and software for all students, staff, and sites.
- Assures that all students, staff and sites will be provided with and have equal access to those minimum standards of hardware and software.
- Implements grade level technology goals identified to insure equity of delivery to all students.
- Expands and enhances voice communications to provide parents/community greater access to school information, to school staff and the capability to leave messages 24 hours a day.
- Via telecommunications, enables 24-7 access to school learning resources, classroom lessons and assignments, school information and electronic messages for students, parents, staff, and community members.
- Provides the learning community with greater opportunity for interaction, collaboration and information exchange. The school will become a vital meeting place for a host of community services.
- Promotes equitable access to learning technology as a community investment and encourages an active partnership among schools,

businesses, homes and the community.

### **DEVELOPMENT OF LIFELONG LEARNERS**

- Assures skillful use of technology to support the development of lifelong learning skills and process skills such as: flexibility, adaptability, critical thinking, problem solving, and collaboration, which are essential to success in our rapidly changing information age.

### **INTEGRATION OF TECHNOLOGY IN THE CLASSROOM**

- Expands classroom tools for teaching and learning.
- Provides for the integration of multiple resources for existing and emerging curriculum.
- Enables the learning community to communicate more effectively, access and process information, and work productively.
- Links the classroom with educational resources within the building, community and worldwide.
- Creates a collaborative environment for project oriented activities.
- Increases the productivity of students as they work toward attaining learning outcomes.
- Encourages the use of multimedia tools, enabling students to become active and experiential learners.
- Enables learning to involve partnerships within the school, among schools, and with other organizations.

### **BUILD A CULTURE OF CONTINUOUS LEARNING FOR STAFF**

- Provides introduction to networked systems.
- Supports using basic network software.
- Develops school-based technology planning and learning.
- Builds online learning opportunities.
- Incorporates learning new curriculum (math, writing, etc.) with technology applications.

### **SUPPORT FOR INSTRUCTIONAL CHANGE**

- Facilitates access to collegial support and best practice information from a wide variety of resources.
- Expands the variety of teaching tools and strategies to support diverse learning styles.
- Supports productive and efficient management of student assessment and portfolio data.
- Increases support for emerging instructional strategies: inter-disciplinary, collaborative, and active learning options.
- Enables curriculum, instruction and assessment to be developed and aligned with each other.
- Provides a system that helps students, parents and teachers work together to support educational outcomes.

- Pilots new teaching strategies, technologies, and instructional resources.
- Investigates emerging possibilities for electronic learning resources such as e-books and enhanced personal digital assistants (PDAs) for each student.

# I. CURRICULUM

## LEARNING GOALS

**Education in Westwood is a shared, life-long experience in which the diverse needs of all individuals are met. This experience is provided in a safe, supportive environment, and will ensure success in a changing world.**

Education in the Westwood Community School District is guided by our District's Strategic Plan, which lists the following four goals:

- GOAL ONE: Improve Academic Achievement.
- GOAL TWO: Improve Student Support Services.
- GOAL THREE: Improve Facilities and Infrastructure.
- GOAL FOUR: Ensure Fiscal Stability in the District.

At the state and district level, educators have identified essential learning requirements for students. The Michigan Curriculum Framework contains required benchmarks in the areas of reading, writing, mathematics, science, and social studies. Westwood Community School District's adopted curricula are aligned to these learning requirements. An effort is underway to include the technology learning goals in all adopted curriculum documents. In addition, Westwood has recommended essential learning standards for students which describe our expectations for the roles students will play.

Westwood Community School District expects its graduates to achieve these Learning Standards and to be:

- Knowledgeable Individuals who read with comprehension; write with skill; communicate effectively and responsibly; and demonstrate academic proficiency in the arts, geography, mathematics, civics and history, health and fitness, social sciences, and physical and life sciences.
- Quality Producers who successfully apply academic, intellectual, artistic, and practical learning to create quality products and performances.
- Effective Communicators who apply their communication skills and processes effectively in a variety of ways and settings.
- Competent Thinkers, who are able to think analytically and creatively, solve problems and make decisions.
- Effective Collaborators who can work successfully with diverse individuals and groups.
- Responsible Citizens who are informed and apply knowledge to improve the quality of their lives and communities.
- Life-Long Learners who are self-directed and apply learning confidently

and successfully to new and different situations and tasks in preparation for a changing world and workplace.

Westwood educators have identified seven roles learners will play as they use technology in order to achieve these Learning Standards:

1. The student as information navigator
2. The student as critical thinker and analyzer using technology
3. The student as creator of knowledge using technology, media and telecommunications
4. The student as effective communicator through a variety of appropriate technologies and media
5. The student as a discriminating selector of appropriate technology for specific purposes
6. The student as technician
7. The student as a responsible citizen, worker, learner, community member and family member in a technological age.

There is considerable overlap in these expectations and we have used these ideas along with State and National guidelines to revise our goals for student learning. The Westwood Community School District is a leader in the use of computer technologies for teaching and learning. We use a sophisticated network to communicate and do productive work. Our students and teachers have been guided by the Technology Plan which was first approved by the School Board in 1997, and reviewed and updated annually since. Students are expected to use technology for communication, for information processing and for productivity. In the last eleven years, much has changed in the world of technology and in our understandings about literacy, teaching and learning. In order to achieve our current goals, as expressed in our School Improvement Plan and to meet state and national benchmarks, we continue to evolve and grow our use of Technology for all students. Our 21<sup>st</sup> Century vision continues to place the emphasis on communication, and expand expectations for students to be responsible and ethical users of technology, to use technology for thinking, learning, and producing 21<sup>st</sup> Century products, and to be problem solvers and effective users of information.

Our Technology Standards and Goals were written by a group of educators from across the district that reviewed the current student goals, and studied expectations from other school districts and state and national groups. The District Technology standards are consistent and aligned with our current District strategic goals, the State Technology Standards (METS), and the National Educational Technology Standards for Students from the International Society for Technology in Education (ISTE).

The Westwood Technology Standards cover five areas for all students in grades K-12:

- basic technology operations and concepts
- responsible and ethical use
- effective and creative communication
- thinking, learning, and producing
- research, problem-solving, and decision-making

Technology Goals are listed for each standard. Additionally, Technology Goals have been written for four grade-level clusters: Primary: including grades (K-2), Upper Elementary: including grades (3-5), Middle School: including grades (6-8), and High School: including grades (9-12).

The Westwood Community School District Technology Standards for All Students (see pg 9) have been reviewed by various groups including the District Technology Committee, building principals, and library media specialist. Many suggestions and opinions have shaped the current version of the Technology Standards. The School Expectations list (see pg 20) identifies the expected annual activities for students in each school.

These 21st Century Technology Standards are in support of the District School Improvement Plan and the Michigan Curriculum Framework, and will guide our technology efforts in the future.

# **Technology Goals for All Students**

## **Westwood Community School District**

*Students at all grade levels, K-12 will: (these are generalized, specific goals/objectives follow by level)*

- 1 Understand basic technology operations and concepts.**
  - Demonstrate a sound understanding of the nature and operation of technology systems, including networked environments.
  - Develop sufficient technical skills to successfully use, troubleshoot and maintain technology and telecommunications tools in daily life, work situations and learning environments.
  - Discriminate among a variety of technologies and media to select appropriate technology for specific purposes.
  
- 2 Use technology responsibly and ethically.**
  - Practice responsible use of technology systems, information and software.
  - Understand the ethical, cultural, environmental and societal implications of technology and telecommunications.
  
- 3 Use technology to communicate effectively and creatively.**
  - Use a variety of media and formats to communicate information and ideas effectively to multiple audiences.
  - Use telecommunications to collaborate, publish and interact with peers, experts and other audiences.
  - Create, produce and present ideas in a variety of forms, including text, video, graphics and conversation.
  
- 4 Use technology for thinking, learning and producing.**
  - Enhance content-area learning with technology-infused lessons.
  - Construct new meaning and knowledge by combining and synthesizing different types of information.
  - Use computer modeling, image processing, simulations and data manipulation to develop understanding.
  - Use a variety of tools to produce quality products.
  
- 5 Use technology for research, problem solving and decision-making.**
  - Use technology to locate, evaluate, collect and organize information from a variety of sources.
  - Review information analytically and transform it into useful knowledge to solve problems.
  - Work with a group to collaboratively solve a problem and present results.

# **Technology Goals for All Students Westwood Community School District**

## **Grades K-2: Technology Goals**

- 1. Understand basic technology operations and concepts.**
  - 1.1 Demonstrate a sound understanding of the nature and operation of technology systems, including networked environments.**
    - Use appropriate terminology in describing technology.
    - Develop skills in basic computer operations (keyboard functions, logon, logoff, mouse techniques).
  - 1.2 Develop sufficient technical skills to successfully use, troubleshoot and maintain technology and telecommunications tools in daily life, work situations and learning environments.**
    - Successfully operate computers, VCRs, printers, audiotapes and other technologies.
  - 1.3 Discriminate among a variety of technologies and media to select appropriate technology for specific purposes.**
    - Use multimedia resources (interactive books, software, and encyclopedias) to support learning.
  
- 2. Use technology responsibly and ethically.**
  - 2.1 Practice responsible use of technology systems, information, and software.**
    - Cooperate with others while using technology.
    - Care for and safely operate equipment.
  - 2.2 Understand the ethical, cultural, environmental and societal implications of technology and telecommunications.**
    - Demonstrate positive and ethical social behavior when using technology (follow rules).
  
- 3. Use technology to communicate effectively and creatively.**
  - 3.1 Use a variety of media and formats to communicate information and ideas effectively to multiple audiences.**
    - Create documents using word processing and desktop publishing software.
  - 3.2 Use telecommunications to collaborate, publish and interact with peers, experts and other audiences.**
    - Share information with others using data networks and telecommunications (telephone, email with class).
  - 3.3 Create, produce and present ideas in a variety of forms, including text, video, graphics and conversation.**
    - Enhance documents with graphics, including clip art and original artwork, using paint, chart and draw programs.
    - Make presentations using technology.

**4. Use technology for thinking, learning and producing.**

**4.1 Enhance content-area learning with technology-infused lessons.**

- Use a variety of technology resources to support learning (lessons on public drives).

**4.2 Construct new meaning and knowledge by synthesizing information.**

**4.3 Use computer modeling, image processing, simulations and data manipulation to develop understanding.**

- Make a graph to sort and understand information.

**4.4 Use a variety of tools to produce quality products.**

**5. Use technology for research, problem solving and decision-making.**

**5.1 Use technology to locate, evaluate, collect and organize information from a variety of sources.**

- Use key words as a search strategy.
- Use technology to locate, evaluate and collect information (electronic encyclopedias, library catalog, selected Internet sites, and magazines).

**5.2 Review information analytically and transform it into useful knowledge to solve problems.**

- Use technology to research a problem or make a decision.

**5.3 Work with a group to collaboratively solve a problem and present results.**

- Work with a team to find information, make decisions and create a product.

# Technology Standards for All Students Westwood Community School District

## Grades 3-5: Technology Goals

### **1. Understand basic technology operations and concepts.**

#### **1.1 Demonstrate a sound understanding of the nature and operation of technology systems, including networked environments.**

- Demonstrate an understanding of concepts underlying hardware, software and connectivity.
- Navigate computer systems (organize documents into folders, move between different applications).

#### **1.2 Develop sufficient technical skills to successfully use, troubleshoot and maintain technology and telecommunications tools in daily life, work situations and learning environments.**

- Apply strategies for identifying and solving routine hardware and software problems that occur during everyday use.
- Develop keyboarding skills. Use home row fingering position with appropriate fingering stretches, keyboarding faster than handwriting (approximately 10-15 wpm).

#### **1.3 Discriminate among a variety of technologies and media to select appropriate technology for specific purposes.**

- Select and use appropriate tools and technology resources to accomplish a variety of tasks

### **2. Use technology responsibly and ethically.**

#### **2.1 Practice responsible use of technology systems, information and software.**

- Cooperate with others while using technology. Demonstrate respect for privacy and work of others.
- Care for and safely operate equipment.

#### **2.2 Understand the ethical, cultural, environmental and societal implications of technology and telecommunications.**

- Demonstrate positive and ethical social behavior when using technology (follow rules).
- Understand basics of information ownership and copyright law.
- Understand how technology is used daily in industry, business and education.

### **3. Use technology to communicate effectively and creatively.**

#### **3.1 Use a variety of media and formats to communicate information and ideas effectively to multiple audiences.**

- Create written documents using writing process steps, word processing skills, and publishing programs.
- Revise documents using word processing program features, including

spell checking.

- Use a spreadsheet to create tables, graphs and charts, and explain what each means.

**3.2 Use telecommunications to collaborate, publish and interact with peers, experts and other audiences.**

- Communicate with others using email. Develop good habits for managing email.

**3.3 Create, produce and present ideas in a variety of forms, including text, video, graphics and conversation.**

- Enhance documents with graphics, including clip art and original artwork, using paint, chart, and draw programs.
- Communicate ideas by creating and delivering a presentation.

**4. Use technology for thinking, learning and producing.**

**4.1 Enhance content-area learning with technology-infused lessons.**

- Use a variety of media and technology resources for directed and independent learning activities in the curriculum areas (lessons on public drives, online research projects).

**4.2 Construct new meaning and knowledge by analyzing and synthesizing information.**

- Compare and contrast information using two or more resources.

**4.3 Use computer modeling, image processing, simulations and data manipulation to develop understanding.**

- Sort and analyze information using databases and spreadsheets.

**4.4 Use a variety of tools to produce quality products.**

**5. Use technology for research, problem solving and decision-making.**

**5.1 Use technology to locate, evaluate, collect, and organize information from a variety of sources.**

- Use key words as a search strategy for locating information.
- Use technology to locate, evaluate, collect and organize information (electronic encyclopedias, library catalog, selected Internet sites, and magazines).

**5.2 Analyze information and apply understanding to solve problems.**

- Use technology to research a problem or make a decision.

**5.3 Work with a group to collaboratively solve a problem and present results.**

- Research a problem or decision to be made using technology, and work with a team to create a product.

# Technology Standards for All Students Westwood Community School District

## Grades 6-8: Technology Goals

### 1. Understand basic technology operations and concepts.

#### 1.1 Demonstrate a sound understanding of the nature and operation of technology systems, including networked environments.

- Demonstrate an understanding of concepts underlying hardware, software and connectivity.
- Navigate computer systems (organize documents into folders on hard drive, move between different applications, use program help and navigation aids).

#### 1.2 Develop sufficient technical skills to successfully use, troubleshoot and maintain technology and telecommunications tools in daily life, work situations and learning environments.

- Apply strategies for identifying and solving routine hardware and software problems that occur during everyday use.
- Develop keyboarding skills to 20-25 wpm with 90% accuracy on timed test.
- Demonstrate and use ergonomically appropriate posture and techniques to perform tasks.

#### 1.3 Discriminate among a variety of technologies and media to select appropriate technology for specific purposes.

- Select and use appropriate tools and technology resources to accomplish a variety of tasks.

### 2. Use technology responsibly and ethically.

#### 2.1 Practice responsible use of technology systems, information and software.

- Cooperate with others while using technology.
- Care for and safely operate equipment.

#### 2.2 Understand the ethical, cultural, environmental and societal implications of technology and telecommunications.

- Demonstrate legal and ethical behaviors when using information and technology, and discuss consequences of misuse.
- Demonstrate understanding of intellectual property and copyright law by properly crediting work of self and others. Identify examples of copyright violations.
- Demonstrate knowledge of current changes in information technologies and the effect those changes have on the workplace and society.
- Identify technological skills needed for school success and jobs.
- Research the accuracy and relevance of information sources.

### **3. Use technology to communicate effectively and creatively.**

#### **3.1 Use a variety of media and formats to communicate information and ideas effectively to multiple audiences.**

- Create multi-page documents using writing process steps, word processing skills, and publishing programs.
- Revise documents using word processing program features, including spell checking, thesaurus and grammar checking. Use advanced editing and text formatting.
- Use a spreadsheet to create tables, graphs and charts, and explain what each means.

#### **3.2 Use telecommunications to collaborate, publish and interact with peers, experts and other audiences.**

- Communicate with others using email. Develop good habits for managing email.

#### **3.3 Create, produce, and present ideas in a variety of forms, including text, video, graphics and conversation.**

- Enhance documents with graphics, including clip art and original artwork, using paint and draw programs.
- Design, develop, publish and present products (presentations, web pages, documents, videotapes) for a variety of audiences.

### **4. Use technology for thinking, learning and producing.**

#### **4.1 Enhance content-area learning with technology-infused lessons.**

- Use a variety of media and technology resources for directed and independent activities to support learning.

#### **4.2 Construct new meaning and knowledge by combining and synthesizing different types of information.**

#### **4.3 Use computer modeling, image processing, simulations and data manipulation to develop understanding.**

- Use content-specific tools, software and simulations (environmental probes, graphing calculators, exploratory environments, Web tools, visual learning aids) to support thinking and learning.
- Sort, organize, interpret and display information using spreadsheets and databases.

#### **4.4 Use a variety of tools to produce quality products.**

### **5. Use technology for research, problem solving and decision-making.**

#### **5.1 Use technology to locate, evaluate, collect and organize information from a variety of sources.**

- Use search strategies, including logical operators, keywords and record sorting, in a prepared database.
- Use technology to locate, evaluate, collect and organize information (electronic encyclopedias, library catalog, selected Internet sites, magazines).

#### **5.2 Review information analytically and transform it into useful knowledge to solve problems.**

**5.3 Work with a group to collaboratively solve a problem and present results.**

- Collaborate with peers, experts and others using telecommunications and collaborative tools to investigate problems, issues and information, and to develop solutions.

# **Technology Standards for All Students Westwood Community School District**

## **Grades 9-12: Technology Goals**

### **1. Understand basic technology operations and concepts.**

#### **1.1 Demonstrate a sound understanding of the nature and operation of technology systems, including networked environments.**

- Demonstrate an understanding of concepts underlying hardware, software and connectivity.
- Navigate computer systems (organize documents into folders on hard drive, move between different applications and various drives, use program help and navigation aids).

#### **1.2 Develop sufficient technical skills to successfully use, troubleshoot and maintain technology and telecommunications tools in daily life, work situations and learning environments.**

- Apply strategies for identifying and solving routine hardware and software problems that occur during everyday use.
- Develop keyboarding skills to 25-30 wpm, and demonstrate ergonomically appropriate posture and techniques to perform tasks.

#### **1.3 Discriminate among a variety of technologies and media to select appropriate technology for specific purposes.**

- Select and use appropriate tools and technology resources to accomplish a variety of tasks.
- Make informed choices among technology systems, resources and services.
- Identify capabilities and limitations of contemporary and emerging technology resources, and assess the potential of these systems.

### **2. Use technology responsibly and ethically.**

#### **2.1 Practice responsible use of technology systems, information and software.**

- Cooperate with others while using technology.
- Care for and safely operate equipment.

#### **2.2 Understand the ethical, cultural, environmental and societal implications of technology and telecommunications.**

- Demonstrate legal and ethical behaviors regarding the use of technology and information.
- Demonstrate understanding of intellectual property and copyright law by properly crediting work of self and others.
- Analyze advantages and disadvantages of widespread use and reliance on technology in the workplace and in society as a whole.
- Identify technological skills needed for jobs.
- Research the accuracy and relevance of information sources.

### **3. Use technology to communicate effectively and creatively.**

#### **3.1 Use a variety of media and formats to communicate information and ideas effectively to multiple audiences.**

- Create multi-page documents using word processing skills, writing process steps, and publishing programs.
- Revise documents using word processing program features, including spell checking, thesaurus and grammar checking. Use advanced editing and text formatting.
- Use a spreadsheet to create tables, graphs and charts, and explain what each means.

#### **3.2 Use telecommunications to collaborate, publish and interact with peers, experts and other audiences.**

- Communicate with others using email. Develop good habits for managing email.
- Efficiently use online information resources to meet needs for collaboration, research, publications, communications and productivity.

#### **3.3 Create, produce, and present ideas in a variety of forms, including text, video, graphics and conversation.**

- Enhance documents with graphics, including clip art and original artwork, using paint and draw programs.
- Design, develop, publish, and present products (presentations, web pages, documents, videotapes) that demonstrate and communicate curriculum concepts to audiences inside and outside of the classroom.
- Collaborate with peers, experts and others to contribute to a content-related knowledge base by using technology to compile, synthesize, produce and disseminate information, models and other creative works.

### **4. Use technology for thinking, learning and producing.**

#### **4.1 Enhance content-area learning with technology-infused lessons.**

- Select and apply technology tools for research, information analysis, problem solving, and decision making in content learning.
- Evaluate technology-based options, including distance education, for lifelong learning.

#### **4.2 Construct new meaning and knowledge by combining and synthesizing different types of information.**

#### **4.3 Use computer modeling, image processing, simulations and data manipulation to develop understanding.**

- Use content-specific tools, software and simulations (environmental probes, graphing calculators, exploratory environments, Web tools, visual learning aids) to support thinking and learning.
- Sort, organize, interpret and display information using spreadsheets and databases.
- Investigate and apply expert systems, intelligent agents, and simulations in classroom and real world situations.

#### **4.4 Use a variety of tools to produce quality products.**

**5. Use technology for research, problem solving and decision-making.**

**5.1 Use technology to locate, evaluate, collect and organize information from a variety of sources.**

- Use technology to locate, evaluate and collect information (electronic encyclopedias, library catalog, selected Internet sites, magazines).
- Use a variety of electronic sources to access resources and media, and apply sophisticated search techniques to collate, interpret and publish a research project.

**5.2 Review information analytically and transform it into useful knowledge to solve problems.**

**5.3 Work with a group to collaboratively solve a problem and present results.**

- Collaborate with peers, experts and others using telecommunications and collaborative tools to investigate problems, issues and information, and to develop solutions.

## **SCHOOL STRATEGIES**

To enable learners to meet the Technology Standards and Goals, schools will employ strategies to provide the following activities.

### **Standard 1. Basic technology operations**

- Regular, ongoing, and flexible access to computers throughout the school year.
- Keyboarding instruction and practice. Key emphasis on grades 3-4, 6 and 9, with yearly practice sessions conducted from elementary classrooms and English classes.

### **Standard 2. Responsible and ethical use**

- Continuous emphasis on responsibility and ethics
- Copyright recognition and citations used properly in research projects

### **Standard 3. Effective and creative communications**

- Planned use of variety of media throughout the curriculum
- Yearly multiple writing experiences using technology for the full writing process

### **Standard 4. Thinking, learning, and producing**

- Technology available and a regular part of lesson plans
- Use of spreadsheets, databases and other tools for understanding, making meaning with data, and production

### **Standard 5. Research, problem-solving, decision-making**

- Students complete at least one research project every semester, (a culminating research project which involves the full research cycle (based on essential question, questioning, planning, gathering, sorting, synthesizing, evaluating, reporting), keyboarding (Standard 1), writing (Standard 3), making meaning with data (Standard 4), proper citations (Standard 2), and presentation (Standards 3 and 5).

## STRATEGIES and TIMELINES for TECHNOLOGY INTEGRATION

<b># 1 Implement Technology Learning Standards for All Students</b>			
Activity	Who	When	Evaluation/Assessment Data Collected
1. School Tech Committees use data from Self-Assessments, and Performance Assessments to write goals in the area of technology.	Media Specialists, School Improvement Committee	Annually	Update plans,goals and technology assessment report.
2. Implement consistent keyboarding instruction at grades 3-4, 6 and 9. a. Assess current practice b. Instruction implemented c. Performance assessments at each grade level d. Regular practice during writing projects all grades.	Media Specialists in each School	By late Fall 2009	Include in end-of-year technology assessment report
3. Implement yearly multiple writing experiences using technology for the full writing process. a. Assess current practice b. Implement one instance per year c. Annual performance assessment	Media Specialists, Principals, Classroom Teachers, Technology Director, District Committee, School Improvement Teams	Fall / Winter 2009  2008-2009 2009-2010 2010-2011	Design assessments. Sample at each grade level Measure with activity matrix. Sample at each grade level

d. Full implementation		2011-2012	
4. Implement consistent practice of requiring two annual culminating research projects, using full research cycle, keyboarding, writing process, and making meaning with data, proper citations, and presentation.	Media Specialists, Principals, Classroom Teachers, Technology Director, District Committee, School Improvement Teams	Spring 2010	End-of-year technology assessment report
a. Pilot use of online research modules		2009-2010	Same as above
b. Implement one project per year in every grade		2010-2011	Same
c. Implement two projects per year in every grade		2011-2012	
5. Include technology-based goals in Social Studies and Health/Fitness curricula.	Media Specialists, Principals, Classroom Teachers, Technology Director, District Committee, School Improvement Teams	2010-2011	Report on strategic plan. End-of-year technology report.
6. Improve inclusiveness for all students, including Special Education and those speaking English as a second language.	Media Specialists, Principals, Technology Director, District Committee, School Improvement Teams	2009-2011	Activity matrix. Sampling
7. Increase efforts at high school level to coordinate assignments leading to	Media Specialists, Principals, Technology	2009-20012	End of year Technology assessment

achievement of tech standards.	Director, District Committee, School Improvement Teams		
8. Pilot distance learning opportunities with online courses for AP. a. Use four scholarships for AP courses from Apex. b. Policy Development c. Decision: expand distance learning options?	Media Specialists, Principals, Technology Director, District Committee, School Improvement Teams	Summer 2010	
9. Participate in pilot project with High Tech High model for 9 <sup>th</sup> grade. Add another grade in each subsequent year.	Media Specialists, Principals, Technology Director, District Committee, School Improvement Teams	Fall 2010	Create school within a school for 9 <sup>th</sup> graders. Start Fall 2010. Review and revise mid-year.
10. Create Technology classes for the new Middle School. a. Design classes b. Pilot c. Implement and Use	Media Specialists, Principals, Technology Director, District Committee, School Improvement Teams	2007-2008 School Year	Meet with Committees and write plans
11. Revise software adoption procedures to include Instructional Materials Committee Review.	Media Specialists, Principals, Technology Director, District Committee, School Improvement Teams	Winter 2010	Assess progress.
12. Expand options for students in	Media Specialists,	2009-2011 School Year	Use student activity matrix to

<p>Information Technology (web design, digital media, networking, and programming).</p> <ul style="list-style-type: none"> <li>a. Expand course offerings at high school level.</li> <li>b. Expand partnerships with other community institutions.</li> </ul>	<p>Principals, Technology Director, District Committee, School Improvement Teams</p>	<p>2009-2011</p> <p>2009-2012</p>	<p>chart student activities. Include in annual technology assessment report</p> <p>Evaluate. Participate with groups from other districts. Evaluate Determine next steps.</p> <p>Discussions with principals. Decision to proceed. Timeline created.</p> <p>Written process for piloting and using curriculum-based software tied to curriculum goals.</p> <p>Web Design Class in high school</p> <p>Expand options in other levels</p> <p>Opportunities offered in partnership with community institutions.</p>
---	--	-----------------------------------	--

**# 2 Create instructional resources and guides to support implementation of student learning standards.**

Activity	Who	When	Evaluation/Assessment Data Collected
1. Create and post learning modules for grade Technology class.	Media Specialists, Principals, Technology Director, District Committee, School Improvement Teams	2009-2011 Revise mid-year Revise annually	Begin school year with several modules online. Complete all modules for first semester 2011 Mid-year revisions posted by February 2012
2. Post websites that guide learners to online reference materials.	Media Specialists, Principals, Technology Director, District Committee, School Improvement Teams	Spring 2010 Annually	Site posted on District website
3. Purchase subscriptions to reference materials such as Encarta online, ProQuest, Electric Library, Newsbank and others.	Media Specialists, Principals, Technology Director, District Committee, School Improvement Teams LMT and LMS	Initial Purchase 2009 Expand/Revise Annually	
4. Create web guides for learning application software.		Summer 2010	Posted on district website

<p>5. Use assessment/curriculum software and online lessons in all schools in the district.</p>	<p>Media Specialists, Principals, Technology Director, District Committee, School Improvement Teams</p>	<p>2008-2010 Installation 2009-2012 Expand use</p>	<p>Media Specialist to work with grade level classroom teachers  Lessons shared with colleagues</p>
<p>6. Create library of online research projects for students keyed to district learning goals.</p>	<p>Media Specialists, Principals, Technology Director, District Committee, School Improvement Teams</p>	<p>2009-2012</p>	<p>Projects posted for grades 3-8 first More projects added Projects revised. More added</p>
<p>7. Create modules for Middle School Technology online course.</p>	<p>Media Specialists, Principals, Technology Director, District Committee, School Improvement Teams</p>	<p>2009-2011</p>	<p>Modules Posted Modules Piloted, revised, reposted.</p>
<p>8. Create curriculum websites to support new and continuing curriculum areas.</p>	<p>Media Specialists, Principals, Technology Director, District Committee, School Improvement Teams</p>	<p>Summer 2010</p>	<p>Revise current sites  Build website for grade level curriculum areas</p>
<p>9. Pilot the use of purchased curriculum projects such as those offered by Classroom Connect</p>	<p>Media Specialists, Principals, Technology Director, District Committee, School Improvement Teams</p>	<p>2010-2012</p>	<p>Pilot projects  Decision of whether to implement or not</p>

**# 3 Increase staff skills to enable productive work and increased student learning.**

Activity	Who	When	Evaluation/Assessment Data Collected
1. Design and conduct training in use of district technologies for new teachers.	Media Specialists, Principals, Technology Director, District Committee, School Improvement Teams	August annually	Feedback Forms. Revise each year
2. Provide one-on-one tutorial assistance to new teachers and principals.	Media Specialists, Principals, Technology Director, District Committee, School Improvement Teams	On demand Usually August and September	Feedback Forms. Revise general plan
3. Design and conduct training in use of district technologies for Post Bachelor's Student Teachers assigned to Westwood Schools.	Media Specialists, Principals, Technology Director, District Committee, School Improvement Teams	August or September Annually	Feedback Forms. Revise each year.
4. Organize participants in the Teacher Mentoring Program into collegial sharing groups and teaching teams.	Media Specialists, Principals, Technology Director, District Committee, School Improvement Teams	2009-2012 Annually	Regular meetings and email exchanges Winter/Spring workshops