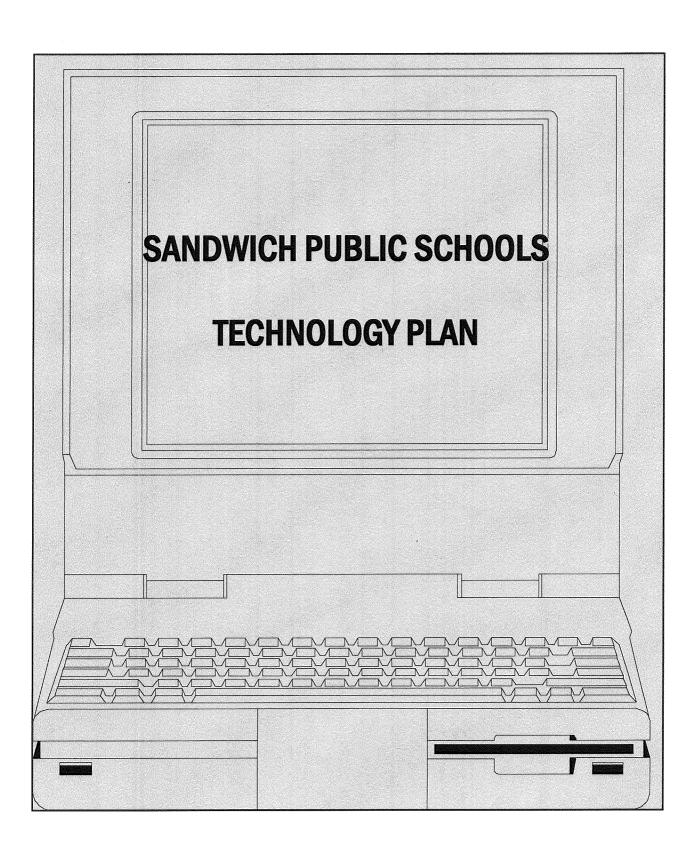


Sandwich Public Schools Technology Plan 2005 – 2008



SANDWICH PUBLIC SCHOOLS TECHNOLOGY PLANNING TEAM

Jane Macdonald, Assistant Superintendent
Joan Caulkins, District Webmaster
Mary von Alt, Technology Coordinator
Deb O'Brien, Library/Media Specialist
Lee Savery, Network/Systems Manager
Michelle Raymond, Head Technician
Vickie Gauthier, Consultant
Mary Kelly, K-8 Technology Specialist

Long Term Goals

The Sandwich Public Schools (SPS) District is committed, through its long-range technology plan, to improve student academic achievement and to assist every student regardless of race, ethnicity, income, geographical location, or disability—in becoming technologically literate. To accomplish these fundamental objectives, SPS District has set the following goals:

- ➤ Integrate technology, including assistive technology, into all areas of standards-based, K 12 academics:
- Educate all teachers and administrators in effective utilization and integration of technology, as well as in support of such integration;
- ➤ Provide around the clock access to technology-enhanced, standards-based curricula as well as to tutorials, technology tools, and other resources that will aid all students in improving academic achievement and attaining technological literacy;
- ➤ Utilize technology to gather and analyze student performance data; ensure that teachers and administrators use such data to inform decisions targeting student academic achievement:
- > Ensure that all SPS school improvement plans are informed by analyzed performance data.

These goals are implemented through the integration of technology into academic courses aligned with Massachusetts Curriculum Frameworks, thus the district technology goals are also aligned with state academic standards.

Strategies for improving academic achievement and teacher effectiveness through the use of technology

Ongoing strategies for improving academic achievement:

- Develop technological literacy in students through the implementation of academic curriculum that involves the acquisition of increasingly sophisticated technological skills:
- > Acquire assistive technologies and utilize universal design to respond to the diverse needs of learners;
- ➤ Use technology as a student learning tool for gathering, organizing, analyzing, and presenting material, as well as for reinforcement and self-assessment, in all areas of standards-based, K–12 academics;
- > Provide access to technology and trained support personnel outside of regular school hours, either at school or at public libraries, to ensure equal access for all students;
- > Use the on-line Help and Homework Zone to give students round the clock access to
 - o daily assignments and technology-rich, standards-based projects, with supplementary support resources
 - o tutorials, instructional guides, test preparatory sites, and academic discussion groups;

> Provide student performance data for analysis by teachers and administrators to determine strengths and weaknesses of curriculum and pedagogy.

Ongoing strategies for improving the capacity of teachers and administrators to integrate technology:

- > Provide a comprehensive, systemic professional development program, using the Project MEET model, and including courses focused on:
 - o Effective technology integration;
 - Creating technology-rich lessons, using the Wiggins model, including real life applications, extension activities, and authentic assessment tools that address diverse learning strengths and modalities;
 - Analyzing student performance data for evidence of strengths and weaknesses in curriculum and pedagogy;
 - o Using the Homework Zone;
 - o Using and integrating assistive technologies;
 - o Mentoring and team leadership;
 - o Administrative strategies to support and enhance teachers' integration and utilization of technology.
- > Reward successful completion of professional development courses with Professional Development Points or Increment Credits, in accordance with established rules.
- ➤ Incorporate technology into teaching strategies for multi-modal presentation, delivery, reinforcement, and assessment of curricula in all areas of standards-based, K 12 academics.
- > Provide district wide email for all SPS educators and administrators to facilitate collaboration with colleagues in support of effective technology integration;
- ➤ Provide continuous, trained support during the school day to facilitate successful technology integration;
- > Purchase additional, innovative instructional technology to assist special education.

Integration of technology with curricula and instruction

SPS integrates technology with curricula and instruction in accordance with the following standards, based on the Massachusetts Recommended PreK-12 Instructional Technology Standards:

- > Use telecommunications efficiently and effectively to access remote information and communicate with others in support of learning;
- ➤ Use technology tools to locate information, including images and sounds, from a variety of electronic sources in support of school curriculum;
- > Evaluate the accuracy, relevance, appropriateness, comprehensiveness, and bias of electronic information sources for school projects;
- > Use technology tools to record, analyze, compare and contrast, and present the basic facts and essential ideas in material read, heard, or viewed, to facilitate learning;
- > Communicate results of research and learning with others, using the most appropriate technology tools;

- > Decide if technology would be useful, then select and use technology resources for solving problems and making informed decisions;
- > Use multimedia tools, reinforcement software, and enrichment software to facilitate learning throughout the curriculum.

To support implementation of these technology standards, Sandwich has a Technology Coordinator at the high school as well as a full-time K – 8 Technology Coordinator working with teachers in the three elementary schools. These Coordinators assist teachers in the integration of technology into classroom curriculum on a daily basis as well as in the design of curriculum according to the Wiggins model, adopted by SPS as the basis for its Exemplary Lesson Plan Rubric. This SPS Lesson Plan Rubric assures the creation and implementation of technology-enhanced, standards-based lessons and units, addressing and assessing multiple intelligences. Sandwich's on-line Homework Zone offers another means of integrating technology through its on-line projects, daily homework assignments, and electronically delivered learning materials such as tutorials, web quests, and supplementary supporting resources. SPS will further the integration of technology into curricula and instructional strategies through the continuing purchase of appropriate educational software and on-line, standards-drive software such as PLATO.

The timeline below indicates academic areas on which efforts will be particularly focused but not limited to. Please note that SPS's technology plan, goals, and strategies are already being implemented, with the further enhancements described above.

	TIMELINE
School Year	Academic Area of Focus
Sept. '04 – June '05	English Language Arts (ELA) and Math
Sept. '05 – June '06	History and Social Sciences
	(ELA and Math ongoing)
Sept. '06 – June '07	Science and Engineering Technology
	(ELA, Math, and History ongoing)
Sept. '07 – June'08	Foreign Languages, Physical Education,
	and Art
	(ELA, Math, History, Science ongoing)
Sept. '07 – December '08	All academic areas

Collaboration

The Fund Code 160 Technology Program will support our comprehensive plan to provide learning opportunities for all students, teachers and families through an aligned curriculum with high academic expectations, opportunities for diverse learners and ongoing professional development and support for teachers in standards based curriculum, technological literacy and innovative, teacher driven projects using a variety of technologies to enhance student achievement. This plan melds with our Teacher Quality Programs (Title 2) in that it encourages new and beginning as well as master

teachers to continually upgrade their skills with overtime stipends and a variety of teacher incentives inherent in all of our Federally funded programs. Master teachers and leadership teams participate in Project Meet and are paid as consultants to train and support their colleagues. The FC 160 grant also supports many Title 1 initiatives in that technology is used to provide remediation and academic support both during and after school. Parents are involved in all aspects of our federally funded programs as they sit on a variety of leadership and decision-making councils and groups. Our web page is vast and provides in depth information to parents. Our web based "Help and Homework Zone" also encourages parental participation in all aspects of the educational process in an organized and sequential manner.

Innovative Delivery Strategies

The district encourages online coursework, self-help homework zones and remedial and MCAS tutorials in ELA/reading math, writing and research skills. Sandwich uses satellite, distance learning and opportunities offered through our many labs and satellite centers on a regular basis. We have collaborated with U. Mass Boston in distance learning courses for Professional Development and we currently offer online courses for teachers. Please see our web page for additional distance and technology driven learning opportunities for parents, students and staff members.

Community Outreach and Parental Involvement

Parents are involved in all aspects of our federally funded programs in that they sit on a variety of leadership and decision-making councils and groups. Our web page is vast and provides in depth information to parents regarding technology, school policy, curriculum initiatives etc. Our web based "Help and Homework Zone" also encourages parental participation in all aspects of the educational process in an organized and sequential manner and is accessible through the students' home, school and neighborhood library. Additionally Sandwich reaches out to parents through newsletters, cable TV shows and bimonthly televised School Committee meetings.

Accessibility and types of technology utilized

Sandwich will ensure that all students and teachers have increased access to technology by expanding the amount and variety of assistive technologies available to meet student and teacher need, and by continuing to provide access to technology attended by trained personnel outside of regular school hours. Types of assistive technologies that may be acquired include hardware such as electronic note takers, keyboard and mouse interfaces, and other input interfaces, and software such as voice input programs, e.g., Dragon Point and Speak, voice output programs, voice output web browser and screen reading programs such as eReader, word prediction programs, e.g., CoWriter, and mouse emulator programs. Students already have access to AlphaSmarts, word processor notebook computers designed for individuals with physical, cognitive or sensory disabilities, more of which may be purchased if necessary. SPS acquisition of assistive

technologies will be guided by the recommendations of the professional consultant from UMass, part of the state sponsored Assistive Technology Professional Development program. Interoperability of technology components will be assured prior to purchase.

Evaluation and accountability measures

Sandwich will measure the effectiveness of its strategies to integrate technology into curricula and instruction, to expand teachers' capabilities, to improve student achievement, and to help all students become technologically literate by means of the following instruments and processes:

- > Departmental surveys eliciting feedback from Department Heads regarding teaching practices within each department;
- > Reports by technology personnel of the number of posted, technology-enhanced exemplary lessons/units;
- > Reports of the number of teachers enrolled in professional development courses, and the hours per teacher;
- > Reports from mentors regarding the number of people accessing their resources;
- Monitored use of the computer lab(s) and teacher-completed lab assessment forms;
- Teacher-completed surveys of student scores on homework, projects, and assessments; (do we want to change this to "Analysis of MCAS and other student assessments to determine student performance strengths and weaknesses as well as "trends" in test scores. AND "Analysis of curriculum and pedagogy (OR teaching practices/strategies) to identify areas of strength and weakness.)
- > Teacher-completed surveys of student technology use for homework assignments and projects;
- > Student surveys of self-assessed technological skills;
- > Continued academic improvement on MCAS and other standardized tests.

Databases and spreadsheets will be used to manage, analyze, and report results.

Name of Grant Program: Title II, Part D:

Enhancing Education Through Technology

Fund Code: 160

PART III - REQUIRED PROGRAM INFORMATION

TITLE II, PART D - PROGRAM NARRATIVE FORM

Instructions:

- 1. Please complete the following chart with the requested information. Feel free to add as many lines as needed in order to address each priority.
- Provide information on the priority for which you plan to use Title II-D funds. If you do not plan to use Title II-D funds for a priority, do not complete the cells in that row. However, you must provide information for Priority I, since you are required to spend a minimum of 25% of funds on professional development. 4
- For Column A, identify the corresponding line item from the budget detail sheet. (For example, Line 5 Contractual Services: Consultants.) e,
- 4. For Column B, indicate which schools will benefit from the Title II-D funding.
- For Column C, explain how the long-range technology plan addresses the Title II-D priorities, providing the page number and/or section of the technology plan that addresses the Title II-D priority. 5.
- If the long-range technology plan(s) is posted on your website, please provide the URL(s): www.sandwich.K12.ma.us
- (If two or more districts are collaborating on an application, provide the URL for each long-range technology plan.)
- If the long-range technology plan is not posted on your website, please email an electronic copy to Baiba Ozols bozols@doe.mass.edu)

c,

Name of Grant Program: Title II, Part D: Enhancing Education Through Technology

Fund Code: 160

B. APPLICANT AGENCY: Sandwich Public Schools	ools	District Code:	6 1
Applicant Agency JaneMacdonald Contact Person:	Address: 16 Dewey Ave, Sandwich, Ma.	Zip Code:02563	
Telephone: (508) 888-1054 x. 12	E-mail address: jmacdonald@sandwich.k12.ma.us	ma.us	

TITLE II-D PRIORITIES	A. Which budget line items will address this priority?	B. Which schools will receive the services and/or purchases?	C. Which of your district technology goals address the Title II-D priority? (Provide the page number and/or identify section of the technology plan.)
1. Provide sustained professional development for staff to further the use of technology in the classroom or library media center.	Project Coordinator	District, K-12	2. Educate all teachers (Professional Development)
2. Use technology to improve student academic achievement and/or to develop student technology competency.	Project Coordinator	District, K-12	3. Access to technology for student achievement 4. Use technology to analyse student performance data
3. Identify and promote relevant research-based curricula and teaching strategies that integrate technology effectively into the curricula to improve student academic achievement.	Project Coordinator	District, K-12	1. Integrate technology into curriculum
4. Encourage the development and use of innovative strategies for delivering specialized or rigorous courses through the use of technology, including distance-learning technologies, for students in areas that would not otherwise have access to such courses or curricula due to geographical isolation or insufficient resources.			

Name of Grant Program: Title II, Part D: Enhancing Education Through Technology

Fund Code: 160

	TITLE II-D PRIORITIES	A. Which budget line items will address this priority?	B. Which schools will receive the services and/or purchases?	C. Which of your district technology goals address the Title II-D priority? (Provide the page number and/or identify section of the technology plan.)	
5. U c P	Use technology effectively to increase communication with parents and promote parental involvement.	Project Coordinator	K-12	5. School Improvement Plans are informed by data driven performance indicators	
6. В е	Ensure that all students and teachers have equitable access to advanced technology and are connected to the Internet.				
7. H	Ensure that the selection of software and other electronically delivered learning materials are interoperable and are used to the fullest extent possible.	Project Coordinator/Techn ology team will order supplies	K-12	Goals 1-5	1
ж. Озоддо ка	Develop a process to evaluate the extent to which the funded activities are effective in integrating technology into the curricula and instruction, increasing the ability of teachers to teach, and enabling students to reach challenging state academic standards with technology.				

Microsoft Office Curriculum

Grade Level:

Grade 9

1 Credit Class

College Prep

Designed by: Doreen Chagnon & Mary Thulin Time Frame: 1 semester

School District: Sandwich Public Schools

School: Sandwich High

Microsoft Office is a course designed to introduce students to the Windows 98 operating system and the Microsoft Office package. Basic Internet skills including e-mail and searching techniques will be addressed. Emphasis will be on Word (word processing), Power Point (presentations) and Excel (spreadsheet). Projects in Microsoft Word will include creating and editing word documents, setting up a research paper with proper MLA documentation and creating cover letters and resumes. In Power Point, students will create/design a presentation using text and imported clip art/pictures. Projects in Excel will focus on basic record keeping, real life budgeting, statistics and creating charts and graphs. If time permits students will also become familiar with Microsoft Access.

Attendance is a major portion of the student's final grade. This course is one of the requirements for graduation from Sandwich High School. Components of this course will be fully incorporated into future classes at Sandwich High School.

Stage 1: Identify Desired Results – Massachusetts **Curriculum Standards Used**

1. Educational Technology Standards

Standard 1: Demonstrate proficiency in the use of computers and applications as well as an understanding of concepts underlying hardware, software, and connectivity.

(Continuation of Grades 5-8 Performance Indicators)

- 1.12 Identify and use basic features of a computer operating system (e.g., format/initialize disks, access information on size and format of a file, create folders on local hard drive).
- 1.13 Save a file to the desktop, the hard drive, and external storage spaces (e.g., floppy disk, CD-ROM, virtual electronic space).
- 1.14 Select a printer and print a document with appropriate page setup and orientation.
- 1.15 Operate peripheral equipment (e.g., scanner, digital camera, camcorder).
- 1.16 Develop efficient keyboarding techniques.
- 1.17 Identify and use editing and formatting features of a word processing program (e.g., centering, line spacing, margins, cut and paste, fonts, styles, spelling, page numbers).

- 1.18 Insert images (e.g., graphics, clip art, tables) from other files into word-processed document.
- 1.19 Describe structure and function of database and identify components (e.g., record, field).
- 1.20 Create an original database, defining field formats and adding new records.
- 1.21 Perform simple operations in a database (e.g., browse, sort, search, delete, add data).
- 1.22 Describe structure and function of spreadsheet (e.g., cells, rows, columns, formulas) and apply formatting features.
- 1.23 Create an original spreadsheet, entering simple formulas.
- 1.24 Produce simple charts from spreadsheet.
- 1.25 Identify and use navigation features of browser (e.g., "go," "back," "forward").
- 1.26 Using a browser, "bookmark" a Web site for future reference.
- 1.27 Identify basic elements of a Web site (e.g., URL, hyperlinks, site map, etc.).
- 1.28 Copy an image from a Web site into a file on the desktop; write a correct citation caption in keeping with copyright law.
- 1.29 Using e-mail, create and send a message. (Student use of e-mail is determined by district policy and may be a class-wide activity if students do not have individual accounts.)
- 1.31 Use correct terminology in speaking about electronic communications (e.g., browser, search engine, online).
- 1.32 Create a slide presentation using appropriate applications.
- 1.33 Identify and use drawing and painting applications as appropriate for class projects.
- 1.34 Identify appropriate applications for a classroom project.

(Grades 9-12 Performance Indicators)

- 1.36 Run multiple applications simultaneously, alternating among them.
- 1.37 Resolve commonly occurring error messages. Resolve simple hardware and software problems as they occur (e.g., frozen screen, disk error, printing problems).
- 1.39 Save (also retrieve, load, and import) a word-processed document in different file formats (e.g., RTF, HTML).
- 1.41 Perform efficient keyboarding techniques.
- 1.42 Import/export and link data between word-processed document and other applications.
- 1.43 Duplicate database structure without data.
- 1.44 Use features of a database program such as mailing labels and mail merges.
- 1.45 Import/export and link data between database and other applications.
- 1.46 Use advanced formatting features of a spreadsheet application (e.g., reposition columns and rows, add and name worksheets).
- 1.47 Use formulas in a spreadsheet application.
- 1.48 Import/export data between spreadsheet and other applications.
- 1.49 Customize formatting of charts or graphs created in spreadsheet.
- 1.50 Define and use functions of a spreadsheet such as sort, filter, find.
- 1.51 In a spreadsheet application, use various number formats (e.g., scientific notation, percentages, exponents) as appropriate.
- 1.52 In a browser, organize bookmarks into folders for further reference.
- 1.53 Know how to select and use search engines. Understand the differences between search engines.
- 1.54 Explain effective search strategies to locate and retrieve electronic information (e.g., understand and use syntax and Boolean logic operators).
- 1.55 Using e-mail, create an address book. (Use of e-mail is at district discretion and may be a class-wide activity if students do not have individual accounts.)
- 1.56 Share files as attachments in an e-mail message (e.g., text, graphics, sound). (District discretion applies.)
- 1.57 Create a multimedia presentation, desktop-published report, or Web page that incorporates data from other files.
- 1.58 Create and manipulate illustrations using a drawing or painting program (e.g., adjust scale, size, shape).
- 1.59 Identify capabilities of technology resources and understand how they can be used for lifelong learning.
- 1.60 Select the appropriate technology tool for a task.

Standard 2: Demonstrate responsible use of technology and an understanding of ethics and safety issues using electronic media.

(Continuation of Grades 5-8 Performance Indicators)

- 2.6 Explain and demonstrate understanding of classroom rules regarding responsible use of computers (responsible behavior around equipment, respect for other people's work, and appropriate collaborative behavior).
- 2.7 Explain and demonstrate ethical and legal behavior in copying files, applications, and media.
- 2.8 Explain potential problem of computer viruses and exercise caution in opening e-mail attachments from unknown sources. (Use of e-mail is at district discretion.)
- 2.9 Explain safe practices for sharing personal information via e-mail and the Internet. (Use of e-mail is at district discretion.)
- 2.10 Explain proper e-mail etiquette. (Use of e-mail is at district discretion.)
- 2.11 Describe and demonstrate knowledge of the school's Acceptable Use Policy, and know the consequences of violating that policy.
- 2.12 Validate a Web site for authenticity (e.g., find site sponsor, author, and date the site was last updated).
- 2.13 Explain how media and technology can be misused to distort or exaggerate information.
- 2.14 Write correct citations for text and images gathered from electronic sources. Understand that use of materials is limited by the fair use rule of copyright law.
- 2.15 Develop an awareness of the issue of ergonomics (e.g., Repetitive Stress Injuries) and how to use equipment safely.

(Grades 9-12 Performance Indicators)

- 2.16 Identify ways in which technology is used in the workplace and in society.
- 2.17 Demonstrate a clear understanding of the school's Acceptable Use Policy.
- 2.18 Explain laws restricting use of copyrighted materials on the Internet.
- 2.19 Explain how to evaluate electronic sources of information. (See Integrated Learning Scenario, *Validating a Web site.*)
- 2.20 Cite electronic sources correctly.
- 2.21 Understand issues of ergonomics and practice safe use of equipment.

Standard 3: Demonstrate ability to use technology for research, problem solving, and communication. Students locate, evaluate, collect, and process information from a variety of electronic sources. Students use telecommunications and other media to interact or collaborate with peers, experts, and other audiences.

(Continuation of Grades 5-8 Performance Indicators)

- 3.6 In keeping with the research process outlined in Standard 24 of the *English Language Arts Curriculum Framework*, identify electronic sources of information (e.g., Internet, CD-ROM, online periodical databases, and online catalogs).
- 3.7 Use search engines effectively to find relevant, unbiased, and current information on a subject. (Standard 2 performance indicators apply—i.e., evaluate Web sites and write correct citations for sources.)
- 3.8 Organize information that is collected using a variety of tools (e.g., spreadsheet, database, saved files).
- 3.9 Communicate results of research and learning with others using the most appropriate tools (e.g., desktop-published or word-processed report, multimedia presentation).
- 3.10 Manipulate data using charting tools and graphic organizers (e.g., concept mapping, flow charting, and outlining software) to connect ideas and organize information.

3.11 Under teacher's guidance, and at discretion of district, use e-mail to communicate with others (e.g., students in other classrooms, experts in a subject, teachers).

(Grades 9-12 Performance Indicators)

- 3.12 In conducting research use all appropriate electronic sources (e.g., Web sites, online periodical databases, online catalogs).
- 3.13 Integrate (with correct citations) electronic research results into a research project.
- 3.14 Routinely evaluate Web sites for authenticity when using them.
- 3.15 Present information, ideas, and results of work using any of a variety of communications technologies (e.g., multimedia presentations, Web pages, videotapes, desktop-published documents).
- 3.16 Collect, organize, analyze, and graphically present data using the most appropriate tools (e.g., spreadsheet, database, graphing, and concept mapping tools).
- 3.17 Import graphics, photos, and other media into report or presentation, citing sources appropriately.
- 3.18 Create multiple links among various pieces of information residing in different applications (e.g., a chart imported from a spreadsheet into a word-processed report can be linked to update automatically when the data is changed in the spreadsheet).

2. English Language Arts

Standard 19: Students will write with a clear focus, coherent organization, and sufficient detail.

Standard 20: Students will write for different audiences and purposes.

Standard 21: Students will demonstrate improvement in organization, content, paragraph development, level of detail, style, tone, and word choice in their compositions after revising them.

Standard 22: Students will use knowledge of English conventions in their writing, revising, and editing.

Standard 23: Students will organize ideas in writing in a way that makes sense for their purpose.

Standard 24: Students will gather information from a variety of sources, analyze and evaluate the quality of information they obtain, and use it to answer their own questions.

Standard 26: Students will identify, analyze, and apply knowledge of the conventions, elements, and techniques of film, radio, video, television, multimedia productions, the Internet, and emerging technologies and provide evidence from the works to support understanding.

Standard 27: Students will design and create coherent media productions (audio, video, television, multimedia, Internet, emerging technologies) with a clear controlling idea, adequate detail, and appropriate consideration of audience, purpose, and medium.

Stage 1: Understandings Desired:

- I. Ergonomics
 - a. Using the correct posture
 - b. Emphasis of use of the Home Keys for keyboarding
- II. Basic Internet Skills
 - a. Visit the library
 - b. Email/file attachments
 - c. Internet searching skills/on-line databases
- III. Windows 98
 - a. Saving/Printing
 - b. File Names
 - c. Keyboard short cuts
- IV. Word Processing Basics
 - a. Word Window
 - b. Entering text
 - c. Selecting, inserting and deleting text
 - d. Copy, cut and paste
 - e. Fonts, spell check, and find replace
- V. Beyond Basics
 - a. Clip art, graphics
 - i. Digital camera
 - ii. Scanner
 - b. Text wrap
 - c. Numbered and bulleted lists
 - d. Tabs
- VI. Word Extras
 - a. Auto correct
 - b. Insert and format a table
 - c. Add a row or column to a table
 - d. Two page newsletter
 - e. Edit a tables text
 - f. Mail merge and macros
 - g. Create a cover letter, resume, electronic resume
 - h. Business letter and thank you letter
- VII. Power Point basics
 - a. Planning your PowerPoint/ story boards
 - b. The Power Point screen
 - c. Adding slides and transitions
 - d. Viewing a slide show
- VIII. Power Point additions
 - a. Adding clip art
 - b. Adding text effect
 - c. Adding sounds and animation's

IX. PowerPoint editing

- a. Changing slide order and deleting slides
- b. Selecting, editing and moving text
- c. Moving, resizing and deleting
- d. Check your spelling
- e. Audience handouts
- f. Speaker notes

X. Excel Basics

- a. Excel terminology
 - i. Excel screen
- b. Working with worksheets
- c. Entering text and values
- d. Moving around in a worksheet
- e. Entering the same data
- f. Formula basics
- g. Entering formulas manually
- h. Using functions for formulas
- i. Entering formulas using the formula pallet
- j. Editing a formula

XI. Customizing a worksheet

- a. Editing a cells contents
- b. Erasing a data
- c. Selecting cells, rows and columns
- d. Inserting rows and columns
- e. Using auto formats
- f. Applying background colors and patterns
- g. Adjusting column width and row height
- h. Bold, italicize and underline formatting numbers
- i. Copying formats
- j. Printing
- k. Using the page setup dialog box
- I. Margins tab
- m. Header and footer tab
- n. Sheet tab
- o. Previewing your work

XII. Getting your data in order

- a. Sorting data
- b. Filtering
- c. Using chart wizard
- d. Legends and chart types
- e. Moving and identifying chart elements

XIII. Access

- a. Introduction to Access, parts of an Access database, structure of an Access database (the relationships between tables, queries, forms, and reports
- b. the structure of a table, primary keys, types of fields, sizes of fields
- c. Creating a form from a table or tables, entering labels to a form, inserting pictures to a form, formatting a database form, printing forms
- d. Printing tables, entering data to a table, deleting records from a table, inserting records to a table, copying data from a spreadsheet into a table, copying data from a database into a spreadsheet, entering formulas to a database form.
- e. Filtering tables and forms
- f. Filtering forms that have formulas in them
- g. Creating a Query
- h. Entering formulas in a Query
- i. Filtering Queries and relationships with a queries
- j. Creating a Report from a Query
- k. Entering Formulas to a Report
- I. Grouping data in reports
- m. Sorting Data in a Report
- n. Data summaries for reports
- o. Entering pictures
- p. Headers and Footers to reports
- q. Mass Mailings
- r. Writing a Form Letter
- s. Merging Data from a database with a from letter
- t. Proper Format for a business letter
- u. Creating mailing labels from a database

Essential Questions

- 1. What is ergonomics and why is it important when using the computer?
- 2. What is Sandwich High School's Computer/Internet Acceptable Use Policy?
- 3. What is the importance of learning basic Internet skills?
- 4. Where will information for my computer projects be found? How do I know the information I find is accurate, especially on the Internet?
- 5. How do I document my work using MLA documentation?
- 6. What is the importance of editing work created on the computer?
- 7. What is an operating system and what do different operating systems have in common?
- 8. What are the basic word processing skills?

- 9. How can a word processing document be enhanced with graphics, clip art, lists, tables, and other advanced word processing features?
- 10. What is Inspiration and why is it important to create an outline and storyboard before beginning work on a PowerPoint presentation?
- 11. What is a PowerPoint presentation and what are the basic skills for creating a presentation on PowerPoint?
- 12. How can a PowerPoint presentation be enhanced with graphics, clip art, lists, tables, sounds, and animations?
- 13. How can a PowerPoint presentation be edited?
- 14. What are basic Excel skills and why is it helpful to use this program?
- 15. How can an Excel worksheet be customized?
- 16. How can data be sorted in an Excel worksheet?
- 17. What is the program Access used for?
- 18. What are the basic skills for creating a database in Access?
- 19. How will I manage my time as I work independently?

Key Knowledge and Skills

Students will know:

- Keyboarding Skills
- Internet and Researching Skills
- How to Multitask on the Computer
- Writing Skills
- Operation of a classroom network
- How to use computer peripherals
- Microsoft Word
- Microsoft PowerPoint
- Microsoft Excel
- Microsoft Access, time permitting

Stage 2: Determine Acceptable Evidence

Performance Tasks:

- 1. Students will read the *Boston Globe* article, "Keying in on a Lost Skill."
- 2. Students' computer skills will be evaluated.
- 3. Students will review the SHS Computer/Internet Computer Use Policy.

- **3.** (HE) Students will learn how to use Inspiration, Word, PowerPoint, Excel, and Access. These programs will hook students on the course as they learn how to master them.
- **4.** (R) Students will demonstrate their Projects to the class. These oral presentations will allow students to rethink and revise their presentations before they are presented to the class.
- **5.** (E) All students will follow the tutorials to learn the programs to be used. .
- **6.** (E) Deadlines for the completion of all projects will be discussed and students will be given a rubric for evaluation before the project begins.