

Technical Education

Pre-K

Basic Operations - The student will identify the computer as a tool that helps people work and play.

- a. Recognize common uses of technology in daily life.
- b. Name basic computer components (e.g. computer, monitor, keyboard, printer, mouse, CD-ROM, CPU).
- c. Recognize how to turn the computer on and off.
- d. Start and exit programs.
- e. Recognize that computers can store documents.
- f. Recognize that computers can print documents.
- g. Handle storage devices properly (e.g. CDs, memory sticks).
- h. Use the computer hardware and other technology equipment responsibly.

Keyboard - The student will become familiar with the keyboard.

- a. Practice correct hand and body position.
- b. Identify, locate, and use special keys (e.g. arrow keys, space bar, Shift, Enter/Return, Backspace, Delete, letters, and numbers) on the keyboard.
- c. Use the mouse to click and press, drag and release.

Ethical Usage - The student will practice responsible use of the technology systems, information, and software.

- a. Type name and basic words.
- b. Use basic paint and drawing programs to create pictures.

Tool for Productivity - The student will use technology to produce documents.

Tool for Communication - The student will recognize that the Internet is used to interact with peers, experts, and other audiences.

Tool for Research - The student will recognize that technology is used to locate information.

Tool for Problem Solving and Decision Making - The student will use software to identify and practice letters, numbers, shapes, and colors.

FIRST GRADE

Basic Operations - The student will recognize the parts of a computer and demonstrate how to operate them.

- a. Identify common uses of technology in daily life.
- b. Name and locate basic computer components (e.g. mouse, keyboard, monitor, printer, and keyboard).
- c. Demonstrate how to turn the computer on and off.
- d. Start and exit programs and locate files.
- e. Understand that computers can store documents.
- f. Understand that computers can print documents.
- g. Take proper care of technology equipment.

Keyboard - The student will become familiar with the keyboard.

- a. Practice correct hand and body position.
- b. Identify, locate, and use special keys where applicable (e.g. Enter/Return, ESC, letters, numbers, space bar, Delete).
- c. Use the mouse to click, double click and press, drag and release.

Ethical - The student will practice responsible use of technology systems, information, and software.

- a. Discuss the ownership of computer-created work.
- b. Demonstrate respect for the work of others.

Documents - The student will use technology to produce documents.

- a. Use basic paint and drawing tools.
- b. Create signs and cards.

Writing - The student will recognize that word processing is a tool for writing.

Process Data and Reports - The student will use technology tools to process data and report results.

- a. Recognize that graphing is a tool for organizing information.
- b. Use manipulatives and/or graphing software to organize and display data as a class.

Tool for Research - The student will recognize that technology is used to locate, evaluate, and collect information from a variety of sources.

- a. Recognize the Internet as a source of information.
- b. Participate as a group in locating information in a variety of developmentally appropriate technology resources (e.g. interactive books, educational software).

Tool for Problem Solving and Decision-Making - The student will use technology resources for solving problems and making informed decisions.

- a. Use software that promotes creative thinking and problem solving strategies.
- b. Use software for drill and practice.

Technology as a Tool for Communication - The student will recognize that the Internet is used to interact with peers, experts, and other audiences.

- a. Use software that promotes creative thinking and problem solving strategies.

SECOND GRADE

Basic Operations - The student will recognize the parts of a computer and demonstrate how to operate them.

- a. Recognize and use the basic features and functions of a computer (e.g. creating, retrieving, saving, printing data).
- b. Demonstrate correct use of common technology terms (e.g. CD, software, hard drive).
- c. Demonstrate logging on and logging off.
- d. Open and shut down a program.
- e. Open and save documents in a student folder
- f. Take proper care of technology equipment.

Keyboard - The student will become familiar with the keyboard.

- a. Practice correct hand and body position.
- b. Recognize the home row.
- c. Use special keys where applicable (e.g. Shift, Enter/Return, ESC, arrows, letters, numbers, space bar, Delete).
- d. Use the mouse to click, double click and press, drag and release.

Ethical - The student will practice responsible use of technology systems, information, and software.

- a. Discuss the ownership of computer-created work.
- b. Demonstrate respect for the work of others.

Documents - The student will use technology to produce documents.

- a. Use basic paint and drawing tools.
- b. Create signs and cards.
- c. Save and print with assistance.

Writing - The student will identify word processing as a tool for writing.

- a. Identify and use basic word processing terms (e.g. file, open, close, menu bar, save, print).
- b. Identify, discuss, and use basic word processing as a tool to enter numbers, words, and phrases.

Process Data and Results - The student will use technology tools to process data and report results.

- a. Understand that graphing is a tool for organizing information.
- b. Observe, discuss, and use software to enter, calculate, display, and interpret data as a class/group.

Tool for Communication - The student will recognize that the Internet is used to interact with peers, experts, and other audiences.

Tool for Research - The student will use technology to locate, evaluate, and collect information from a variety of sources.

- a. Identify and discuss the Internet as a source of information.
- b. Participate as a group in locating information in a variety of developmentally appropriate technology resources (e.g. interactive books, educational software).

THIRD GRADE

Basic Operations - The student will demonstrate knowledge and skills in the use of computer and other technologies.

- a. Identify and explain the functions of computer components (e.g. monitor, CPU, storage devices, keyboard, mouse, and printer).
- b. Expand and use appropriate computer terminology.
- c. Determine the appropriate technology tools needed to perform specific tasks.
- d. Open and save files to the hard disk, storage medium, or server.
- e. Open and save documents in a student folder.
- f. Demonstrate proper care of technology equipment.

Keyboard - The student will demonstrate proper use of the keyboard.

- a. Demonstrate correct keyboarding posture and finger placement for the home row keys and other keys as needed (e.g. Enter/Return, space bar, ESC, Shift, Delete, Control, arrow keys).
- b. Type simple documents.

Ethical - The student will practice responsible use of technology systems, information, and software.

- a. Discuss the ownership of computer-created work.
- b. Demonstrate respect for the work of others.

Documents - The student will use technology to produce documents.

- a. Use a drawing/paint program to create and edit a simple graphic (e.g. size, shape, color, content).
- b. Create signs and cards.

Writing - The student will use word processing as a tool for writing.

- a. Identify and use basic word processing terms (e.g. menu/tool bar, document, text, and file, open, close).
- b. Recognize, discuss, and use word processing as a tool to enter/edit, print, save, and retrieve assignments.

Process Data and Results - The student will use technology tools to process data and report results.

- a. Recognize that graphing is a tool for organizing information.
- b. Use manipulatives and/or graphing software to organize and display data as a class.

Tool for Communication - The student will use technology as a tool to interact with peers, experts, and other audiences.

- a. Use teacher-selected Internet resources to locate, discuss, and compare information as a class/group.
- b. Discuss how the Internet and email are tools to gather and locate information.

Tool for Research - The student will use technology to locate, evaluate, and collect information from a variety of sources.

- a. Identify terms/concepts (e.g. online, browser, navigation, resources, web address, and web page).
- b. Locate information in a variety of developmentally appropriate technology resources (e.g. interactive books, educational software).

Tool for Problem Solving and Decision-Making - The student will use technology resources for solving problems and making informed decisions.

- a. Begin to identify the different purposes among software applications (e.g. puzzles, writing tools, graphing tools).
- b. Use software that promotes creative thinking and problem solving strategies.
- c. Use software that develops writing skills (e.g. Storybook Weaver, Reader Rabbit).
- d. Use software for drill and practice.
- e. Use simulation software.
- f. Use graphic software.

Posture - The student will demonstrate correct keyboarding posture.

- a. Sit up straight.
- b. Center body to the "h" key with elbows at sides.
- c. Place feet for balance.
- d. Curve fingers over the home keys.
- e. Keep wrists off the keyboard.
- f. Keep eyes on the printed copy.
- g. Key by touch.

Technique - The student will use correct keyboarding techniques.

- a. Use correct fingering while keying the introduced keys.
- b. Demonstrate the correct key reaches for all alphabet keys.

Fingering - Demonstrate correct fingering for the space bar, enter key, shift keys, backspace/delete key, and tab key.

- a. Tap the SPACE BAR with the right thumb.
- b. Hit the ENTER/RETURN key with the right little finger.
- c. Use the LEFT SHIFT key when capitalizing right hand letters.
- d. Use the RIGHT SHIFT key when capitalizing left hand letters.
- e. Strike the BACKSPACE/DELETE key with the right little finger.
- f. Tap the TAB key with the left little finger.

Fingering 2 - Demonstrate correct fingering for the period, comma, and question mark.

- a. Strike the PERIOD with the right ring finger.
- b. Strike the COMMA with the right middle finger.
- c. Key a QUESTION MARK by holding down the left shift key with the left little finger and striking the question mark with the right little finger.
- d. Demonstrate spacing rules when keying a period.
- e. Demonstrate correct spacing when keying a comma.
- f. Demonstrate correct spacing when keying a question mark.

Dictation and Print - The student will key letters, short words, and phrases from dictation and printed copy.

Drills - The student will key drills from printed text.

Competency - The student will achieve minimum keyboarding competency on 30-second timings.

- a. Key at a minimum of 15 words per minute (WPM) on at least three 30-second timings with three or fewer errors.
- b. Key without using the backspace/delete key on timings.

FOURTH GRADE

Basic Operations - The student will demonstrate knowledge and skills in the use of computer and other technologies.

- a. Discuss the uses of computers in a variety of situations.
- b. Identify computer-related careers.
- c. Expand and use appropriate technology vocabulary.
- d. Recognize and use computer peripherals (e.g. CD-ROM, microphone, speaker, hard drive, and scanner).
- e. Recognize the differences between networked and non-networked computers.
- f. Open and save files to the hard disk, storage medium, or server.

Keyboard - The student will demonstrate proper use of the keyboard.

- a. Demonstrate correct keyboarding posture and finger placement for the home row keys and other keys as needed (e.g. Enter/Return, space bar, ESC, Shift, Delete, Control, arrow keys).
- b. Type documents.

Ethical - The student will recognize and use responsible, ethical, and safe behaviors when using technology resources.

- a. Recognize that copyright laws protect the creative works of individuals/groups/companies.
- b. Follow computer usage policies.

Productivity and Creativity - The student will use technology to increase productivity and promote creativity.

- a. Create a graphic document (e.g. poster, greeting card, sign, and invitation).
- b. Organize and arrange information for a multi-media presentation as a group activity.
- c. Recognize spreadsheets as a tool to organize, calculate, and graph information.
- d. Create simple graphs.

Tool for Writing - The student will use word processing as a tool for writing.

- a. Open, save, and print documents.
- b. Identify and use formatting terms/concepts (e.g. boldface, underlining, font size, cut and paste, spell check, edit text)
- c. Insert and manipulate graphics.

Tool for Communication - The student will understand that technology is used as a tool to interact with peers, experts, and other audiences (e.g. email, telecommunications).

Tool for Research - The student will use technology to locate, evaluate, and collect information from a variety of sources.

- a. Locate information in a variety of developmentally appropriate technological resources (e.g. interactive books, educational software).

- b. Use bookmarked URLs as a tool for locating information.
- c. Utilize navigation tools (e.g. Home, Back, Forward, Refresh, and Print).

Tool for Problem Solving and Decision-Making - The student will use technology resources for solving problems and making informed decisions.

- a. Use software that promotes creative thinking and problem solving strategies.
- b. Use software that develops writing skills.
- c. Use simulation software.
- d. Use software for drill and practice.
- e. Use graphic software.
- f. Recognize how to use a calculator for computation.

Technique - The student will demonstrate correct keyboarding techniques.

- a. Position feet for balance.
- b. Center body to the "h" key with the elbows at sides.
- c. Curve fingers over the home keys.
- d. Keep wrists off the keyboard.
- e. Keep eyes on printed copy.
- f. Key by touch.
- g. Key with a smooth rhythm.

Technique 2 - The student will demonstrate correct keyboarding techniques while increasing speed and maintaining accuracy.

- a. Key at a minimum speed of 20 (WPM) on at least three 30-second timings with three or fewer errors.
- b. Key without using the backspace/delete key on timings.

FIFTH and SIXTH GRADE

Basic Operations - The student will demonstrate knowledge and skills in the use of computer and other technologies.

- a. List uses of computers in a variety of situations.
- b. Identify occupations/careers that use computers/technology.
- c. Recognize the influence of technology on life in the United States.
- d. Expand use of appropriate technology vocabulary.
- e. Recognize the difference between input devices (e.g. keyboard, mouse) and output devices (e.g. speakers, printer, and monitor).
- f. Explain the basics of how a network works.
- g. Select the appropriate technology tools and/or resources to address a variety of tasks and problems.
- h. Open and save files to folders, the hard disk, storage medium, or server.
- i. Handle storage devices properly (e.g. CDs, memory sticks).

- j. Demonstrate proper care and use of technology equipment.

Keyboard - The student will demonstrate proper use of the keyboard.

- a. Demonstrate proper posture and placement of hands on the keyboard (e.g. touch type).
- b. Demonstrate keyboard skills at an appropriate speed and accuracy (e.g. 15-20 w.p.m.).
- c. Use the home row as a base and reach for keys with the appropriate fingers.
- d. Type documents with minimal errors.

Ethical - The student will recognize and use responsible, ethical, and safe behaviors when using technology resources.

- a. Understand and abide by privacy rights, shareware policies, and copyright laws.
- b. Demonstrate knowledge of Copyright and Fair Use Guidelines by citing sources of copyrighted material.
- c. Explain unethical use of computers, including illegal copying of hardware and software.
- d. Identify possible consequences of unethical behavior.
- e. Recognize and discuss methods used to protect computers and networks from viruses, vandalism, and intrusion (e.g. virus protection, network security, privacy passwords, firewalls, privacy laws).
- f. Explain the importance of responsible and safe behavior when using networked information (e.g. Internet, cellular phone, wireless, LANS).
- g. Follow guidelines for acceptable use of the Internet.

Word Processing - The student will utilize a word processing program.

- a. Define word processing terminology.
- b. Write, proofread, edit, and/or revise documents.
- c. Create and format a document:
 - a. Set character, line, and paragraph spacing options.
 - b. Change margins.
 - c. Bold, italicize, and underline text.
 - d. Change fonts and font sizes.
 - e. Cut, copy, and paste functions.
 - f. Add bullets and numbering.
 - g. Insert page breaks.
 - h. Create and modify page numbers.
 - i. Insert headers and footers.
 - j. Utilize text boxes
- d. Identify and use menu/tool bar features (e.g. page set-up, copy and paste).
- e. Use the editing functions of a word processor (e.g. spell check, grammar check, and thesaurus).

Graphic Document - The student will create a graphic document (e.g. poster, greeting card, sign, and invitation).

Multimedia and Presentation - The student will use multimedia authoring and presentation tools.

- a. Identify multimedia terms and concepts (e.g. menu, branching, navigation, multimedia design).

- b. Create projects with paint/draw tools.
- c. Create presentations (e.g. slide shows).
- d. Import/export and manipulate simple graphic, video, and/or sound objects.

Tool for Communication - The student will identify the Internet as a tool to interact with peers, experts, and other audiences.

- a. Understand that email is used as a communication tool.
- b. Use appropriate "netiquette".
- c. Use a presentation program to present a document.
- d. Use telecommunications to acquire information.

Internet - The student will utilize the Internet as a research tool.

- a. Use search engines to locate information.
- b. Understand Internet terms (e.g. URL, bookmark, HTML).
- c. Enter a URL to access an Internet website.
- d. Access information from the Internet. View, print, and save the information.
- e. Save an Internet site as a favorite or bookmark a website.

Tool for Problem Solving and Decision-Making - The student will use technology resources for solving problems and making informed decisions.

- a. Use software programs that promote creative thinking and problem solving strategies (e.g. word processing, graphing).
- b. Use simulation software.
- c. Use software for drill and practice.
- d. Create graphic and text documents.

Technology Tools - The student will determine the appropriate technology tools for accessing information and resources.

- a. Use an electronic encyclopedia, dictionary and thesaurus.
- b. Select and use appropriate software and/or other technologies to locate and acquire information from electronic resources (e.g. interactive books, educational software).

Concepts - The student will demonstrate proficiency in the use of technology.

- a. Identify areas in which technology has impacted human lives.
- b. Discuss the advantages and disadvantages associated with common uses of technology in daily life.
- c. Speculate on the emerging technologies.
- d. Expand the use of appropriate technology vocabulary.
- e. Continue to manage and maintain technology tools (e.g. properly log on and off, load printer paper).
- f. Recognize common problems and troubleshooting strategies (e.g. printing problems, frozen computer, common error messages, rebooting, and help system).
- g. Demonstrate proper care and use of technology equipment.

Keyboard - The student will use keyboarding skills to increase productivity and accuracy.

- a. Demonstrate proper posture and placement of hands on keyboard (e.g. touch type).
- b. Demonstrate keyboard skills at an appropriate speed and accuracy (e.g. 18-23 w.p.m.).
- c. Type text from written material with minimal errors.

Ethical - The student will practice responsible use of technology systems, information, and software.

- a. Practice ethical behavior relating to security, privacy, passwords, and personal information.
- b. Explain unethical use of computers, including illegal copying of hardware and software, and as in relation to an individual's rights.
- c. Recognize ownership, security, and privacy issues.
- d. Demonstrate an understanding of copyright by citing sources of copyrighted materials in papers, projects, and multimedia presentations.
- e. Recognize the need for protection of software and hardware from computer viruses and vandalism.

Word Processing - The student will utilize a word processing program.

- a. Define word processing terminology and demonstrate related skills
- b. Open, save, and print documents.
- c. Produce documents with graphics.
- d. Proofread, edit, and spell-check documents.
- e. Use the thesaurus.
- f. Use advanced utilities of a word processor (e.g. bullets, numbering).
- g. Use header, footer, page numbering, and title page functions.
- h. Create format, and revise tables.

Desktop Publishing Software - The student will use desktop publishing software (e.g. Claris/Apple Works, PageMaker, Microsoft Publisher, and Microsoft Word).

- a. Demonstrate the ability to add text and graphic boxes and borders.
- b. Create a graphic document (e.g. poster, greeting card, sign, and invitation).
- c. Create Word Art.

Multimedia and Presentation - The student will use multimedia authoring and presentation tools.

- a. Create projects with paint/draw tools.
- b. Use presentation software to demonstrate appropriate design layouts and formatting features (e.g. fonts, color background designs).
- c. Create simple multimedia presentations.
- d. Print various views of a project (e.g. slides, cards).
- e. Import/export and manipulate simple graphic, video, and/or sound objects.

Ready-made Databases - The student will examine ready-made databases (e.g. encyclopedia, phone book, recipe book, and Accelerated Reader list).

Spreadsheet - The student will recognize that a spreadsheet is a tool to organize, calculate, and graph information

Tool for Communication - The student will use a variety of media and formats to communicate information and ideas effectively.

- a. Understand that email is used as a communication tool.
- b. Use appropriate on-line etiquette.
- c. Consider the accuracy and validity of information found on the Internet.
- d. Use tele-computing devices (e.g. satellite, cable TV, and modem).
- e. Use imaging technology (e.g. digital camera, scanner).
- f. Produce and conduct a quality, written, audio, and/or visual presentation using multiple technologies (e.g. computer, overhead, camcorder, VCR, audio cassette, printer).

Tools for Accessing - The student will determine the appropriate technology tools for accessing information and resources.

- a. Use an electronic encyclopedia, dictionary, thesaurus, almanac, indexes, and catalogs.
- b. Select and use appropriate software and/or other technologies to locate and acquire information from electronic resources (e.g. interactive books, educational software).

Internet - The student will utilize the Internet as a research tool.

- a. Define Internet terminology.
- b. Utilize search engines to locate information on a specific topic.
- c. Access and use a web browser.
- d. Locate basic Internet and web browser tools (e.g. address bar, search bar, link, and button bar).
- e. Enter URLs and access online databases.
- f. Evaluate information from the Internet.
- g. Observe appropriate on-line etiquette

Tool for Problem Solving and Decision-Making - The student will use technology resources for problem-solving, self-directed learning and extended learning activities.

- a. Access and use various types of educational software programs that promote creative thinking and problem-solving strategies.
- b. Use simulation software.
- c. Create graphic and text documents.
- d. Understand how to use a computer for computation

SEVENTH and EIGHTH GRADE

Basic Operations - The student will demonstrate proficiency in the use of technology.

- a. Identify computer-related careers. Investigate technology knowledge and skills.
- b. Use appropriate computer terminology. Expand technology vocabulary.
- c. Continue to manage and maintain technology tools (e.g. properly shut down system(s), load printer paper).
- d. Apply strategies for identifying and solving routine hardware and software problems (e.g. check plug, on/off switch, reboot).
- e. Demonstrate proper care and use of technology equipment.

Keyboard - The student will use keyboarding skills to increase productivity and accuracy.

- a. Use proper keyboarding techniques to improve accuracy, speed, and general efficiency in computer operation.
- b. Keyboard at 20-25 w.p.m. with correct fingering and minimal errors.

Ethical - The student will practice responsible use of technology systems, information, and software.

- a. Define computer ethics and the purpose of ethical standards.
- b. Explain unethical use of computers, including illegal copying of hardware and software, and as in relation to an individual's privacy rights.
- c. Describe security measures for preventing computer misuse (e.g. viruses, vandalism). Understand the meaning of virus as it relates to computer technology.
- d. Demonstrate ethical behavior relating to security, privacy, passwords, and personal information. Recognize possible consequences of misuse.
- e. Demonstrate an understanding of copyright and Fair Use Guidelines by citing sources of copyrighted materials in papers, projects, and multimedia presentations.

Word Processing - The student will utilize a word processing program.

- a. Define word processing terminology and demonstrate related skills.
- b. Use the advanced features and utilities of a word processor (e.g. bullets, tables, spell check, find and replace).
- c. Demonstrate use of tool bars and pull-down menus.
- d. Produce documents with graphics.
- e. Import and arrange graphics in documents (e.g. copy, paste, wrap text around graphic).
- f. Create and use newspaper columns.
- g. Create sections with formatting that differs from other sections.
- h. Use Justification and Tabs commands.
- i. Create a document using a header, footer, page numbering, and title page functions.
- j. Proofread, edit, and spell check documents.

Graphic Document - The student will create a graphic document (e.g. Claris Works/Apple Works, PageMaker, Microsoft Word, and Microsoft Publisher).

Multimedia - The student will use multimedia authoring and presentation tools.

- a. Create projects with paint/draw tools.
- b. Demonstrate the use of animation and graphics.
- c. Control timing of text graphics, sound, and transitions of project.
- d. Create a menu to navigate through the project.
- e. Plan, design, and develop a multimedia project using data (e.g. graphs, charts, database reports) to present information.

Database - The student will use a database to locate and organize information.

- a. Recognize basic database terms (e.g. file, record, and field).
- b. Identify examples of databases (e.g. phone book, recipe book, and encyclopedia).
- c. Identify uses of databases (e.g. compile similar information).
- d. Navigate through records in a table or form.
- e. Find and sort records.

Spreadsheet - The student will use spreadsheets as a tool to organize, calculate, and graph information.

- a. Recognize spreadsheet terms (e.g. cell, column, row, values, labels, graph, and formula).
- b. Identify uses of spreadsheets.
- c. Identify examples of spreadsheets.
- d. Read and interpret information in a spreadsheet.
- e. Enter and edit data in a spreadsheet template and observe changes that occur.

Tool for Communication - The student will use a variety of media and formats to communicate information and ideas effectively.

- a. Demonstrate ways technology is used to transfer information (e.g. email, Internet).
- b. Observe appropriate on-line etiquette.
- c. Consider the accuracy and validity of information found on the Internet.
- d. Use tele-computing devices (e.g. satellite, cable TV).
- e. Use imaging and sound technology (e.g. digital camera, scanner).
- f. Produce products using visual equipment (e.g. VCR's, cameras, overheads).

Accessing - The student will determine the appropriate technology tools for accessing information and resources.

- a. Use an electronic encyclopedia, dictionary, thesaurus, almanac, indexes, and catalogs.
- b. Select and use appropriate software and/or other technologies to locate and acquire information from electronic resources (e.g. interactive books, educational software).

Internet - The student will utilize the Internet as a research tool.

- a. Define Internet terminology.
- b. Access sites using bookmarks, URLs, and search engines.
- c. Use web browser software.
- d. Produce products using research equipment (e.g. on-line card catalog, CD-ROM, on-line sources, miscellaneous indexes).
- e. Follow guidelines for acceptable use of the Internet.
- f. Evaluate information found from electronic sources for validity, appropriateness, content, and usefulness.

Tool for Problem Solving and Decision-Making - The student will use technology resources for problem-solving, self-directed learning and extended learning activities.

- a. Choose appropriate software for a project.
- b. Use simulation software.
- c. Integrate word processing, database, spreadsheet, and paint/draw documents.
- d. Understand how to use a computer for computation.

Basic Operations - The student will demonstrate proficiency in the use of technology.

- a. Describe the historical development of computing.
- b. Describe historical methods of information storage prior to the development of computing devices.
- c. List uses of computers in a variety of situations.
- d. Identify computer-related careers. Investigate technology knowledge and skills needed for the workplace now and in the future.
- e. Use appropriate computer terminology. Expand technology vocabulary.
- f. Continue to manage and maintain technology tools (e.g. properly shut down system(s), load printer paper).
- g. Recognize and solve minor hardware and software problems.
- h. Demonstrate proper care and use of equipment.

Keyboard - The student will use keyboarding skills to increase productivity and accuracy.

- a. Use proper keyboarding techniques to improve accuracy, speed, and general efficiency in computer operation.
- b. Keyboard at 25+ w.p.m. with correct fingering and minimal errors.

Ethical - The student will practice responsible use of the technology systems, information, and software.

- a. Define computer ethics and the purpose of ethical standards.
- b. Describe how ethical behavior relates to security, privacy, passwords, and personal information.
- c. Explain unethical use of computers, including illegal copying of hardware and software, and as in relation to an individual's privacy rights.
- d. Describe security measures for preventing computer misuse (e.g. viruses, vandalism).

- e. Demonstrate an understanding of copyright by citing sources of copyrighted materials in papers, projects, and multimedia presentations.

Word Processing - The student will utilize a word processing program.

- a. Define word processing terminology and demonstrate related skills.
- b. Use the advanced features and utilities of a word processor (e.g. tab, return, justification, and spacing).
- c. Produce documents with graphics (e.g. stories, reports, newsletters).
- d. Transfer text from a website into word processing.
- e. Use cut, copy, and paste functions for graphics and text from other documents and/or programs.
- f. Create a document using header, footer, page numbering, and title page functions.
- g. Proofread, edit, and spell check documents.

Graphic Document - The student will create a graphic document.

- a. Capture still images from various digital sources (e.g. scanners, digital cameras, Internet).
- b. Import and export graphics in appropriate file format (e.g. pict, jpeg, gif).

Multimedia - The student will use multimedia authoring and presentation tools.

- a. Explain how multimedia is used by the media to entertain, sell, and influence opinions (e.g. games, video, radio, TV, websites).
- b. Create projects with paint/draw tools.
- c. Animate text and/or graphics to add impact.
- d. Control timing of text, graphics, sound, and transitions of project.
- e. Import a video to the presentation.
- f. Use presentation software's advanced features (e.g. inserting pictures, charts, objects).
- g. Create a menu (hyperlinks) to navigate through the project.
- h. Plan, design, and develop a multimedia project using data (e.g. graphs, charts, database reports) to present information.

Database - The student will use a database to locate and organize information.

- a. Define database terminology (e.g. file, field, record).
- b. Explain the advantages of using databases
- c. Search and sort records from a database for a specific need.
- d. Design and create a simple database.
- e. Print database reports.

Spreadsheet - The student will use spreadsheets as a tool to organize, calculate, and graph information.

- a. Identify a spreadsheet and explain basic terms (e.g. row, cell, column, graph, formula).
- b. Format cells and organize data within a prepared spreadsheet.

- c. Perform calculations using simple formulas and functions (e.g. +, -).
- d. Create bar, line, and pie graphs from a spreadsheet.

Tool for Communication - The student will use a variety of media and formats to communicate information and ideas effectively.

- a. Demonstrate ways technology is used to transfer information (e.g. email, Internet).
- b. Observe appropriate on-line etiquette.
- c. Consider the accuracy and validity of information found on the Internet.
- d. Use tele-computing devices (e.g. satellite, cable TV).
- e. Use imaging and sound technology (e.g. digital camera, scanner).
- f. Produce products using visual equipment (e.g. VCR's, cameras, overheads).

Accessing - The student will determine the appropriate technology tools for accessing information and resources.

- a. Use an electronic encyclopedia, dictionary, thesaurus, almanac, indexes, and catalogs.
- b. Select and use appropriate software and/or other technologies to locate and acquire information from electronic resources (e.g. interactive books, educational software).

Internet - The student will utilize the Internet as a research tool.

- a. Define Internet terminology.
- b. Access sites using bookmarks, URLs, and search engines.
- c. Use web browser software.
- d. Produce products using research equipment (e.g. on-line card catalog, CD-ROM, on-line sources, miscellaneous indexes).
- e. Follow guidelines for acceptable use of the Internet.
- f. Evaluate information found from electronic sources for validity, appropriateness, content, and usefulness.

Tool for Problem Solving and Decision-Making - The student will use technology resources for problem-solving, self-directed learning and extended learning activities.

- a. Choose appropriate software for a project.
- b. Use simulation software.
- c. Integrate word processing, database, spreadsheet, and paint/draw documents.
- d. Understand how to use a computer for computation.