

Strand	Competency Standard	ID #	CT 5-8 Computer Technology Performance Standards For Students	Mansfield Technology Goals & Objectives Grades 5-8
1	Basic Operations and Concepts	1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8 1.9	<p>1.1 Discuss common uses of technology in daily life and the advantages and disadvantages those uses provide</p> <p>1.2 Apply strategies for identifying and solving routine hardware and software problems that occur during everyday use</p> <p>1.3 Demonstrate an understanding of concepts underlying hardware, software and connectivity, and of practical applications to learning and problem solving</p> <p>1.4 Use keyboards and other common input and output devices (including adaptive devices when necessary) efficiently and effectively</p> <p>1.5 Independently operate school computers and demonstrate ability to use the system's software and special features</p> <p>1.6 Demonstrate the ability to independently use personal productivity software to create products in a wide range of formats (newsletters, budgets, brochures, imported graphics, web pages, etc.)</p> <p>1.7 Describe general criteria used to evaluate and compare different types of computers, peripherals and other technology tools</p> <p>1.8 Demonstrate the ability to use basic features (entering information/data, editing, calculating, manipulating information, saving files) of personal productivity software (word processing, desktop publishing, spreadsheets, databases, etc.)</p> <p>1.9 With assistance, develop strategies for solving common hardware and software problems</p>	<ul style="list-style-type: none"> ➤ Describe real world uses of electronic spreadsheets. ➤ Describe real world uses of graphic programs. ➤ Describe real world uses of telecommunications and the internet. ➤ Describe real world uses of multimedia. ➤ Describe real world uses of databases. Implement common solutions to software and hardware problems. ➤ Be able to demonstrate proper care of magnetic and optical media. ➤ Apply established footnote and bibliographic standards for giving credit for information or ideas used. ➤ Understand the variety of ways indexes are used as organizers for information systems. ➤ Type within an acceptable range of speed and accuracy. ➤ Show correct posture and fingering while keyboarding. ➤ Explain the need for proper file management. ➤ Save to and retrieve from a variety of electronic media. ➤ Demonstrate the ability to navigate through a variety of software menus to access information.

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2	Social, Ethical and Human Issues	2.1 2.2 2.3 2.4 2.5 2.6	<p>2.1 Demonstrate knowledge of current changes in information technologies and the effect those changes have on the workplace and society</p> <p>2.2 Exhibit legal and ethical behaviors when using information and technology, and discuss consequences of misuse</p> <p>2.3 Research and evaluate the accuracy, relevance, appropriateness, comprehensiveness, and bias of electronic information sources concerning real-world problems</p> <p>2.4 Discuss basic issues related to responsible use of technology and information and describe personal consequences of inappropriate use</p> <p>2.5 Apply established citation standards for giving credit for information or ideas used from electronic resources</p> <p>2.6 Demonstrate an understanding of the concept of ownership of ideas and information by respecting and observing laws and/or guidelines for using information, hardware and networks</p>	<ul style="list-style-type: none"> ➤ Understand and practice lifelong learning using technology with an ethical /legal context. ➤ Demonstrate responsibility in using programs and equipment without direct supervision. ➤ Differentiate among various intellectual properties and conditions of ownership or protocol (I.e., copyright, patents) ➤ Demonstrate critical viewing skills by selecting and analyzing media. ➤ Identify whether multimedia information is accurately presented. ➤ Discern stereotypes, biases, and propaganda techniques in information resources. ➤ Understand copyright laws as they relate to technology. ➤ Understand and avoid plagiarism. ➤ Recognize vandalism and discuss legal issues resulting from the misuse of technology. ➤ Properly handle and use a variety of audiovisual devices.

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3	Technology Productivity Tools	3.1 3.2 3.3 3.4 3.5 3.6	<p>3.1 Use content-specific tools, software and simulations (e.g., environmental probes, graphing calculators, exploratory environments, Web tools) to support learning and research.</p> <p>3.2 Apply productivity/ multimedia tools and peripherals to support personal productivity, group collaboration and learning throughout the curriculum.</p> <p>3.3 Use general purpose productivity tools and peripherals to support personal productivity, remedial skill deficits, and facilitate learning throughout the curriculum.</p> <p>3.4 Use technology tools (e.g., multimedia authoring, presentation, Web tools, digital cameras, scanners) for individual and collaborative writing, communication, and publishing activities to create knowledge products for audiences inside and outside the classroom.</p> <p>3.5 Use appropriate software (spreadsheet, database, hypermedia, etc.) to construct, organize, calculate, analyze and interpret ideas and data, and to present conclusions.</p> <p>3.6 Create databases, spreadsheets and a variety of graphic presentations to communicate numeric and visual information using applications with varied and more sophisticated features.</p>	<ul style="list-style-type: none"> ➤ Apply advanced Boolean logic principles to search techniques. ➤ Use data analysis software programs to understand information. ➤ Produce a word-processed report with a graphic. ➤ Edit word processing documents using advanced editing techniques. ➤ Move text and graphics among related programs.

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4	Technology Communication Tools	4.1 4.2 4.3 4.4 4.5	<p>4.1 Design, develop, publish, and present products (e.g., Web pages, videotapes) using technology resources that demonstrate and communicate curriculum concepts to audiences inside and outside the classroom</p> <p>4.2 Collaborate with peers, experts, and others using telecommunications and collaborative tools to investigate curriculum-related problems, issues, and information, and to develop solutions or products for audiences inside and outside the classroom.</p> <p>4.3 Use technology tools (e.g., multimedia authoring, presentation, Web tools, digital cameras, scanners) for individual and collaborative writing, communication, and publishing activities to create knowledge products for audiences inside and outside the classroom.</p> <p>4.4 Use telecommunications efficiently and effectively to access remote information, communicate with others in support of direct and independent learning, and pursue personal interests.</p> <p>4.5 Use telecommunications and online resources (e.g., e-mail, online discussions, Web environments) to participate in collaborative problem-solving activities for the purpose of developing solutions or products for audiences inside and outside the classroom.</p>	<ul style="list-style-type: none"> ➤ Describe and select the most effective course of action for addressing the essential question. ➤ Frame and pose additional questions related to the completion of the task. ➤ Assess the overall effectiveness and efficiency of the search performance upon completion of the task. ➤ Use appropriate software to construct, organize, analyze, and interpret ideas and data and present conclusions. ➤ Use the online card catalog to locate materials. ➤ Prudently use telecommunications to search and retrieve data remote resources. ➤ Identify keywords, with minimal assistance, for searching information sources. ➤ Identify and discuss existing knowledge concerning a given information task. ➤ Identify and select, with assistance, appropriate sources of information for a specific purpose.

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5	Technology Research Tools	5.1 5.2 5.3 5.4 5.5 5.6 5.7 5.8 5.9 5.10 5.11 5.12 5.13	<p>5.1 Select and use appropriate tools and technology resources, with assistance, to accomplish a variety of tasks and solve problems</p> <p>5.2 Use content-specific tools, software and simulations (e.g., environmental probes, graphing calculators, exploratory environments, Web tools) to support learning and research.</p> <p>5.3 Design, develop, publish, and present products (e.g., Web pages, videotapes) using technology resources that demonstrate and communicate curriculum concepts to audiences inside and outside the classroom.</p> <p>5.4 Collaborate with others using telecommunications and collaborative tools to investigate curriculum-related problems, issues, and information, and to develop solutions or products for audiences inside and outside the classroom.</p> <p>5.5 Use telecommunications and online resources (e.g., e-mail, online discussions, Web environments) to participate in collaborative problem-solving activities for the purpose of developing solutions or products for audiences inside and outside the classroom</p> <p>5.6 Use technology resources (e.g., calculators, data collection probes, videos, educational software) for problem-solving, self-directed learning and extended learning activities</p> <p>5.7 Determine when technology is useful and select the appropriate tool(s) and technology resources to address a variety of tasks and problems</p> <p>5.8 Determine key words and use Boolean logic (when appropriate) to search electronic and Internet-based databases</p> <p>5.9 Demonstrate the ability to navigate through a variety of software menus to access information</p> <p>5.10 Search, find, sort and evaluate database information from computers, CD-ROM and on-line resources and know how to apply established specific features of different search engines</p> <p>5.11 Demonstrate the ability to identify and use a variety of features to locate information using an Internet search engine or directory</p> <p>5.12 Develop and apply criteria for evaluating Internet resources</p> <p>5.13 Use a variety of technology tools to organize and manipulate data to solve problems</p>	<ul style="list-style-type: none"> ➤ Demonstrate the ability to extract selected information from a wide variety of resources. ➤ Demonstrate an understanding of the strengths and weaknesses of various media formats as communication vehicles. ➤ Create a simple database to organize information. ➤ Open, append, modify and delete records in a database. ➤ Sort and print records in a database. ➤ Use microcomputer based laboratory programs for data collections (Probes, Palms, etc.) ➤ Use advanced functions of spreadsheets. ➤ Create a presentation using multimedia software. ➤ Use video, audio, and multimedia tools, with assistance, to create clear, and meaningful presentations. ➤ Demonstrate beginning research skills using electronic information rescues. ➤ Use telecommunications to send and receive electronic mail. ➤ Analyze and adjust, with assistance, the information search strategy. ➤ Follow educational "fair use" guidelines for all types of protected materials. ➤ Apply copyright parameters while using and transmitting information. ➤ Effectively use an electronic database to locate information. ➤ Interpret and organize information using a database and/or spreadsheet.

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6	Technology Problem-Solving and Decision-Making Tools	6.1 6.2 6.3 6.4 6.5 6.6	<p>6.1 Apply productivity/ multimedia tools and peripherals to support personal productivity, group collaboration and learning throughout the curriculum.</p> <p>6.2 Use technology resources (e.g., calculators, data collection probes, videos, educational software) for problem-solving, self-directed learning and extended learning activities</p> <p>6.3 Design, develop, publish, and present products (e.g., Web pages, videotapes) using technology resources that demonstrate and communicate curriculum concepts to audiences inside and outside the classroom.</p> <p>6.4 Demonstrate an understanding of concepts underlying hardware, software and connectivity, and of practical applications to learning and problem solving.</p> <p>6.5 Determine when technology is useful and select the appropriate tool(s) and technology resources to address a variety of tasks and problems.</p> <p>6.6 Evaluate the accuracy, relevance, appropriateness, comprehensiveness and bias of electronic information sources.</p>	<ul style="list-style-type: none"> ➤ Name and describe the functional of peripheral devices. ➤ Recognize the appropriateness of online materials. ➤ Evaluate the quantity and quality of information retrieved. ➤ Apply more complex criteria for aligning resources with a specific need and presentation.