

**TECHNOLOGY CONTENT STANDARDS, BENCHMARKS AND OBJECTIVES**

*Diocese of Lansing and Michigan Department of Education*

*Revised June, 2006*

**Using and Transferring**

**Content Standard 1: All students will use and transfer technological knowledge and skills for life roles (family member, citizen, worker, consumer, lifelong learner)**

	<b>Diocesan Objective: The student will...</b>	<b>K</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>
1.1	Identify the computer as a machine that helps people work and is used as a form of entertainment	I	M							
1.2	Identify common uses of technology found in daily life including, but not limited to, cell phones, digital cameras, scanners, and printers	I	D	D	D	D	D	D	D	D
1.3	Identify places in the community where one can access technology	I	D	D	D	D	D	D	D	D
1.4	Identify the parts of a computer system and operational terminology (e.g., cursor, icon, menu)	I	D	D	M					
1.5	Identify broader uses of technology found in daily life (e.g. bar code scanners, ATMs, medical equipment, security alarms, GPS).		I	D	D	D	D	D	D	D
1.6	Identify computer related careers			I	D	D	D	D	D	D
1.7	Demonstrate the proper use of a computer system	I	D	M						
1.8	Describe the effects of having technology in the home		I	D	M					
1.9	Compare/contrast the impact of messages from different technological sources (e.g., television, cellular phones, electronic mail)					I	D	D	D	D

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1.10	Understand and use multiple devices and systems for storage (file servers, flash drives, compact disks, DVDs)				I	D	M			
1.11	Understands the uses, limitations, and attributes of technology in choosing appropriate tools in a variety of situations					I	D	D	D	D
1.12	Access and use various types of educational software on an individual basis.					I	D	D	D	D
1.13	Identify job opportunities and ways technology is related to these opportunities.					I	D	D	D	D
1.14	Identify ways technology affects financial transactions inside and outside the home. (e.g. online purchasing, banking, stock trading, etc.)					I	D	D	D	D
1.15	Recognize and use network terminology. (e.g. stand alone, network, file server, LANS, etc.)					I	D	M		
1.16	Discuss how various technologies can assist and benefit individuals with disabilities.					I	D	D	D	D
1.17	Recognize and use terms related to the protection of computers (e.g. virus protection, password, network security, firewall)						I	D	M	
1.18	Use telecommunication terms and concepts. (e.g. browser, URL, hypertext, www)				I	D	M			
1.19	Use basic telecommunication tools. (e.g. e-mail and web quests)					I	D	D	M	

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1.21	Discuss possible uses of technology (present and future) to support personal pursuits and lifelong learning								I		D	D
1.22	Use a variety of technological resources to explore career paths and identify areas of interest.										I	D
1.23	Identify technology resources that assist with various consumer related activities (e.g., budgets, purchases, banking transactions and product descriptions.											I

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**Using Information Technologies**

**Content standard 2: All students will use technologies to input, retrieve, organize, manipulate, evaluate, and communicate information.**

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2.1	Understand proper procedure for turning the computer on, logging in, and shutting down the computer.	I	D	M						
2.2	Recognize the functions of basic file menu commands (e.g. new, open, close, save, print).	I	D	D	M					
2.3	Recognize letters, numbers, punctuation and specific function of keys.	I	M							
2.4	Use word processing as a tool to enter letters, numbers and words.	I								
2.5	Recognize proper hand positioning on the keyboard.		I	M						
2.6	Use word processing as a tool to enter number, words short sentences.		I							
2.7	Understand the difference between informal and formal styles of communication (I.M., e-mail, research paper).			I	D	D	M			
2.8	Understand how to use the file management system.			I	D	D	M			
2.9	Use word processing with more advanced tools. (e.g. spell check, undo, tab, margins and thesaurus).				I	D	M			
2.10	Demonstrate proper keyboarding skills while improving speed and accuracy.				I	D	D	D	D	D

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2.11	Be able to access a specific website by typing in the URL under the direction of the teacher.				I	M				
2.12	Enter data into an already prepared database.					I	D	M		
2.13	Use word processing with more advanced tools. (e.g. tables, copy, paste, edit, page setup).					I	D	M		
2.14	Explore and apply menu functions across various applications.					I	D	D	D	D
2.15	Be able to use search strategies with Boolean operators. (and, not, quotation marks, etc.).					I	D	M		
2.16	Use hyperlinks in program applications.						I	D	D	D
2.17	Evaluate search results for accuracy, appropriateness and bias.						I	D	D	D
2.18	Modify a simple database and display data in different ways using the SORT function.						I	D	D	D
2.19	Independently develop search strategies using two or more criteria.						I	D	D	D
2.20	Produce, proofread and edit documents for a variety of content areas using appropriate resources (e.g. dictionary, thesaurus spell check, grammar check, grammar and writing references).						I	D	D	D
2.21	Be able to work with two programs simultaneously.							I	D	M
2.22	Use basic utility programs or built in application functions to convert file formats.							I	D	D

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2.23	Use keyboard without looking at keys while continuing to improve speed and accuracy.				I	D	M	I		
2.24	Demonstrate knowledge of word processing / desktop publishing features. (e.g. columns, tables, headers, footers, text box).								I	D
2.25	Identify appropriate file formats for a variety of applications.									I
2.26	Use basic utility programs or built in application functions to convert file formats.									I
2.27	Create and use a simple database to organize and display data.									I

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**Content Standard 3: All students will apply appropriate technologies to critical thinking, creative expression, and decision making.**

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3.1	Use appropriate software to combine text and graphics		I	D	D	D	D	M		
3.2	Use a variety of technologies to express ideas (voice, data, graphics, etc.).			I	D	D	D	D	D	D
3.3	Imports graphics from a variety of sources using legal and ethical standards. (e.g. files, digital cameras, online sites, software).				I	D	D	D	M	
3.4	Create and/or import sound using legal and ethical standards.				I	D	D	D	M	
3.5	Use multimedia to present information and ideas.				I	D	M			
3.6	Organize and arrange information for a multimedia presentation.					I	D	M		
3.7	Create, modify and import graphics to use in presentations and/or projects.					I	D	D	D	D
3.8	Identify how different forms of media and formats may be used to share similar information depending on the intended audience. (e.g. presentations for classmates, newsletters for parents, etc.)					I	D	D	D	D
3.9	Compare / contrast the functions and capabilities of the word processor, database and spreadsheet.						I	D	D	M
3.10	Perform simple queries on databases and report results.						I	D	D	D

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3.11	Demonstrate knowledge of word processing tools to develop documents that include data imported from a spreadsheet or database.							I	D	M
3.12	Use chart or graph functions to analyze or display findings.							I	D	D
3.13	Use spreadsheet functions to calculate and represent content specific information.							I	D	D
3.14	Incorporate video clips in a presentation or project while following ethical and legal standards.								I	D
3.15	Use advanced spreadsheet features (e.g. colors, legends, borders).								I	D
3.16	Individually create a spreadsheet for a specific purpose, such as computing grade averages.								I	D
3.17	Incorporate, edit, save and retrieve video clips for a presentation or project while following ethical and legal standards.									I
3.18	Create a project (e.g. presentation, web page, newsletter, information brochure) using a variety of media and formats (e.g. graphs, charts, audio, graphics, video) to present content information to an audience.									I
3.19	Use database or spreadsheet information to make predictions, develop strategies, and evaluate decisions to assist with solving a basic problem.									I

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***Employing systematic approach***

***Content Standard 4: All students will employ a systematic approach to technological solutions by using resources and processes to create, maintain and improve products, systems and environments.***

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4.1	Enter data into simple graphs		I	D	M					
4.2	Collect, enter and edit data in graphs and tables			I	D	M				
4.3	Identify and discuss electronic databases (e.g. phone book, address book, calendars, and library circulation) as a way to collect, organize and display data			I	D	D	D	M		
4.4	Interpret simple information from existing age appropriate databases			I	D	M				
4.5	Identify ways that technology has been used to address real world problems			I	D	D	D	D	D	D
4.6	Recognize spreadsheets as a tool to organize, calculate and graph information.				I	D	M			
4.7	Use spreadsheets to organize, calculate and display data.					I	D	M		
4.8	Understand and apply simple formulas. (e.g. SUM function)					I	D	M		
4.9	Select a graph or chart to best represent data from a spreadsheet					I	D	D	M	

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4.10	Independently calculate, represent and explain data using a spreadsheet						I	D	D	M
4.11	Enter and edit data into a spreadsheet to test simple "What if.." statements to solve problems and make decisions.						I	D	D	M
4.12	Describe the development of technology							I	D	D
4.13	Create a simple web page for a specific purpose. (e.g. market a product, promote your school, etc.)								I	D
4.14	Design a technological solution for a specific problem in your community or the world									I

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**Applying Standards**

**Content Standard 5: All students will apply ethical and legal standards in planning, using and evaluating technology.**

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5.1	Demonstrate respect for the work of others	I	D	D	D	D	D	D	D	D
5.2	Discuss ownership of creative works	I	D	D	D	D	D	D	D	D
5.3	Give proper credit for the sources of information.		I	D	M					
5.4	Discuss the consequences of irresponsible uses of technology resources at home or at school		I	D	D	D	D	D	D	D
5.5	Describe security measures for preventing misuse			I	D	D	D	D	D	D
5.6	Understands the meaning of virus as it relates to computers			I	D	D	M			
5.7	Demonstrate knowledge of individual right of ownership of creative works by citing sources				I	D	D	D	D	D
5.8	Know the consequences of irresponsible uses of technology resources at home or at school				I	D	D	D	D	D
5.9	Describe security measures for preventing misuse				I	D	D	D	D	D

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5.10	Identify appropriate kinds of information that should / should not be shared online. (e.g. chat rooms, Weblogs (blogs), games, etc.)					I	D	D	D	M
5.11	Recognize and model responsible and safe behavior with using technological resources					I	D	D	D	M
5.12	Demonstrate understanding of copyright infringement, privacy rights and responsibilities, plagiarism and cheating					I	D	D	M	
5.13	Demonstrate through application their understanding of copyright infringement, privacy rights and responsibilities, plagiarism and cheating						I	D	D	M
5.14	Discuss examples of situations where the use of technology might be affected by legal or ethical considerations. (e.g. downloading music, camera phones, copying DVDs / CDs)							I	D	D
5.15	Discuss consequences of illegal use of technology.							I	D	D
5.16	Understand the school / district policies / procedures for creating web pages								I	D
5.17	Respect privacy issues when creating web pages.								I	M
5.18	Apply prior knowledge of ethical and legal standards to existing policies in order to create an acceptable use policy									I

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6.1	List and describe safe and unsafe aspects of technology in relation to oneself and others		I	D	D	D	D	D	D	D
6.2	Identify responsible and safe online behavior and discuss why it is important			I	D	D	D	D	D	M
6.3	Recognize internet advertising. (e.g. pop ups, you're a winner)			I	M					
6.4	Identify the impact of the disposal of technological devices				I	D	D	D	D	D
6.5	Compare/contrast two communities, one with and one without technological advances.				I	D	D	D	D	D
6.6	Research the positive and negative effects of existing technologies and provide examples					I	D	D	D	D
6.7	Forecast the possible effects that technology could have on our society					I	D	D	D	D
6.8	Explore various technology resources that could assist in pursuing personal goals						I	D	D	D
6.9	Identify security issues related to E-commerce							I	D	D
6.10	Research examples of technological solutions that have led to social, civic, economic or environmental problems and propose methods for addressing these problems							I	D	D
6.11	Identify and describe the effects technological changes have contributed to a global society								I	D
6.12	Describe the information and communication technology tools to use for collecting information from different sources, analyze findings and draw conclusions for addressing real world problems									I

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