

Montpelier Schools
 Seventh Grade
 Technology Applications and Information Tools
 Ohio Technology Content Standards 3, 4, and 5
Scope and Sequence

Key: I – Introduce, C – Continuation, M - Mastery

Standard 3

Technology for Productivity Applications

Students learn the operations of technology through the usage of technology and productivity tools.

Benchmark A: Demonstrate an understanding of concepts underlying hardware, software and connectivity.		
Skills	Level	Comments
Use vocabulary related to computer and multimedia technology systems (e.g., universal serial bus—USB, hubs and switches).	C	
Explain how computer components interact.	C	
Explain the purpose and different functions of software programs.	C	

Benchmark B: Select appropriate technology resources to solve problems and support learning.		
Skills	Level	Comments
Solve problems using all available technologies for inquiry, investigation, analysis and presenting conclusions.	C	
Investigate various formats of video content and methods of presentation (e.g., .wmv, mpeg, .avi, flash).	C	
Edit video clips using video editing software.	I	
Develop speed and accuracy when keyboarding, and transition to a word processing environment.	C	

Benchmark C: Use productivity tools to produce creative works, to prepare publications and to construct technology-enhanced models.		
Skills	Level	Comments
Use content-specific tools, software and simulations to support learning and research to create educational projects (e.g., aerodynamic model design, bridge building simulation, design tools, how it works Web-sites).	C	
Apply technology resources to support group collaboration and learning throughout the curriculum.	C	

Standard 4

Technology and Communication Applications

Students use an array of technologies and apply design concepts to communicate with multiple audiences, acquire and disseminate information, and enhance learning.

Benchmark A: Communicate information technologically and incorporate principles of design into the creation of messages and communication products.		
Skills	Level	Comments
Classify reasons to communicate information and explain why technology enhances communication (e.g., to explain, inform, persuade, sell, archive information in ways that reach a variety of audiences).	C	
Integrate advanced design features into communication products (e.g., background selection, framing, set design).	C	
Generate multimedia presentations that communicate information for specific purposes.	M	

Benchmark B: Develop, publish and present information in a format that is appropriate for content and audience.		
Skills	Level	Comments
Select an appropriate software tool to create and publish print information (e.g., word processor for a report, desktop publishing tool for signs/calendars/newsletters).	C	
Distinguish electronic file types and determine extensions including .txt, .rtf, .doc, .pdf and others.	C	
Insert original sound files into multimedia presentation (e.g., AVI, WAV, MPEG).	C	
Insert copyright-free images (photos/graphics) into multimedia presentations (e.g., GIF, JPEG).	C	
Transform digital images by using editing software to: - a Crop; - b Rotate, flip, invert; - c Add text, borders, decorative elements; - d Adjust color (apply spot coloring, image touch-up); and - e Layer or merge images.	C	

Benchmark C: Select appropriate technology communication tools and design collaborative interactive projects and activities to communicate with others.		
Skills	Level	Comments
Compose e-mail messages and incorporate advanced techniques (e.g., include attachments, send to multiple recipients, format stationary, manage inbox, create address book).	C	
Acquire and disseminate information by participating in virtual learning activities • Web casts • video-conferencing • distance-learning offerings	C	

Standard 5

Technology and Information Literacy

Students engage in information literacy strategies, use the Internet, technology tools and resources, and apply information-management skills to answer questions and expand knowledge

Benchmark A: Evaluate the accuracy, authority, objectivity, currency, coverage and relevance of information and data sources.		
Skills	Level	Comments
Distinguish when current copyright dates of sources are important in answering an information need (e.g., science information on cloning, results of an election).	C	
Assess the objectivity (ability of an author to present information without bias) of a source when using information.	C	
Compare multiple sources (online encyclopedia, Web site, online magazine database, print source) to check accuracy of information (e.g., do facts match on each site?).	C	
Determine the scope of coverage for a given source (does the source cover all of the needed information?).	C	
Chart information gathered from multiple sources to determine facts to be used in a project.	C	

Benchmark B: Use technology to conduct research and follow a research process model which includes the following: develop essential question; identify resources; select, use and analyze information; synthesize and generate a product; and evaluate both process and product		
Skills	Level	Comments
Develop open-ended research questions about a defined information need.	C	
Select and evaluate relevant information about a specific topic in several sources.	M	
Select information from different types of subscription resources (fee-based, pay-to-use) to meet an information need (e.g., magazine database, picture archive, online encyclopedia).	M	
Compile information learned about a topic from a variety of sources.	M	
Create information products to share information using different formats • Print • audio recording • digital • video • slide show	C	
Evaluate how information was found and assess the quality of the information product.	C	

Benchmark C: Develop search strategies, retrieve information in a variety of formats and evaluate the quality and appropriate use of Internet resources.		
Skills	Level	Comments
Recognize that some Web information requires special software for its use (e.g., discuss what plug-ins are and how they expand the use of the Internet).	I	
Search a student-selected online directory or search engine by subject, keyword, author, title, date and/or format.	M	
Use Boolean operators in the search process (e.g., use Boolean logic to expand a search and to limit a search “AND,” “OR” or “NOT”).	C	
Perform searches for information in specific formats (e.g., graphics, images, journal articles).	C	
Compare information found in searches done on different types of Internet resources (e.g., directory, search engine, meta engine).	C	
Report elements of a Web site that make it effective (e.g., describe why the Web site is appropriate for the particular information needed).	C	

Benchmark D: Select, access and use appropriate electronic resources for a defined information need.		
Skills	Level	Comments
Compare search results through the use of different keywords (e.g., search for conservation information using “garbage” and search again using “waste disposal”).	C	
Examine information in different types of subscription (fee-based) databases to locate information for a curricular need • online encyclopedia • online subject dictionaries • magazine index • picture archive	C	