

Montpelier Schools
Tenth 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: Integrate conceptual knowledge of technology systems in determining practical applications for learning and technical problem-solving.		
Skills	Level	Comments
Examine current and past devices for storing data and predict potential devices for the future.	C	
Analyze various types of connectivity, and list pros and cons of each.	I	
Apply strategies for identifying and solving routine hardware and software problems that occur during everyday use.	C	

Benchmark B: Identify, select and apply appropriate technology tools and resources to produce creative works and to construct technology-enhanced models.		
Skills	Level	Comments
Utilize advanced word processing and desktop publishing features and programs.	C	
Use equipment related to computer and multimedia technology imaging - Digitalization - optical character recognition - scanning - computerized microscopes	C	
Identify/recognize state-of-the-art technology tools for solving problems and managing personal/professional information.	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: Apply appropriate communication design principles in published and presented projects.		
Skills	Level	Comments
Identify and incorporate common organizational techniques used in electronic communication (e.g., cause and effect, compare and contrast, problem and solution strategies).	C	
Manipulate communication design elements (image, language, sound and motion) based on intent of the message (e.g., inform or persuade).	C	
Compare and contrast the accuracy of the message/communication product with the audience results (e.g., was the audience influenced by inaccurate information?).	C	
Verify accessibility components of the communication product and adapt as needed.		

Benchmark B: Create, publish and present information, utilizing formats appropriate to the content and audience.		
Skills	Level	Comments
Publish information in printed and electronic version, and select appropriate publication format (e.g., paper, Web, video).	C	
Evaluate communication products.	C	

Benchmark C: Identify communication needs, select appropriate communication tools and design collaborative interactive projects and activities to communicate with others, incorporating emerging technologies.		
Skills	Level	Comments
Contribute to organized e-mail discussions (e.g., discussion list, list serv, threaded discussion list, courseware discussion).	C	
Employ online communication capabilities to make inquiries, do research and disseminate results (e.g., develop dialogues on issues in U.S. government).	C	
Implement online-structured learning experiences (e.g., tutorials, virtual classes, industry certification courses).	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: Determine and apply an evaluative process to all information sources chosen for a project.		
Skills	Level	Comments
Examine information for its accuracy and relevance to an information need (e.g., for a report on pollution, find information from sources that have correct and current information related to the topic).	C	
Identify relevant facts, check facts for accuracy and record appropriate information (e.g., follow a standard procedure to check information sources used in a paper).	C	
Create a bibliography of sources in an electronic format.	C	
Select appropriate information on two sides of an issue (e.g., identify the author of each information source and their expertise and/or bias).	C	

Benchmark B: Apply a research process model to conduct research and meet information needs.		
Skills	Level	Comments
Select the essential question to be examined by the research.	M	
Identify sources most likely to have the needed information and determine subjects and keywords to be used in searching magazine databases and other electronic reference resources.	C	
Evaluate information and select relevant and pertinent information found in each source, and maintain accurate records of sources used.	C	
Organize and analyze information, finding connections that lead to a final product.	C	
Follow copyright law and guidelines, using standard bibliographic format to list sources.	M	
Assess whether the essential questions are answered, gather more information and data and modify search terms as needed. Edit the product.	C	
Review and evaluate research process and the resources used (e.g., how can the research process be improved?).	C	

Benchmark C:

Formulate advanced search strategies, demonstrating an understanding of the strengths and limitations of the Internet, and evaluate the quality and appropriate use of Internet resources.

Skills	Level	Comments
Construct an effective search strategy to retrieve relevant information through multiple search engines, directories and Internet resources.	C	
Narrow or broaden the search strategy by modifying the keywords entered in the original search strategy.	M	
Employ a systematic approach to judge the validity of a Web information match against the defined information need (e.g., researching an author through the Web requires finding biographical information plus criticisms of the author's works).	C	
Examine the information retrieved through Internet searching for authenticity of information, bias, currency, relevance and appropriateness.	M	

Benchmark D:

Evaluate choices of electronic resources and determine their strengths and limitations.

Skills	Level	Comments
Choose a topic and identify appropriate electronic resources to use, citing the name and date of the resource database archive collection.	C	
Research and critique information in different types of subscription (fee-based) electronic resources to locate information for a curricular need.	C	
Investigate tools within electronic resources to generate search strategies (e.g., use a thesaurus to identify subject terms for improved retrieval of information).	C	