

Montpelier Schools
Twelfth 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
Research and create technology systems, resources and services to solve technical problems.	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
Facilitate message intent by incorporating design elements that contribute to the effectiveness of a specific communication medium into student-generated products (e.g., black and white footage to imply documented truth; set design that suggests cultural context).	C	
Analyze the complexities and discrepancies found in communication products.	C	
Interpret ethical considerations and legal requirements involved in construction of communication products.	C	

Benchmark B: Create, publish and present information, utilizing formats appropriate to the content and audience.		
Skills	Level	Comments
Use Web technologies to disseminate information to a broader audience.	C	
Explain evaluation criteria and processes used to communicate with technology (e.g., telecommunications, Wi-Fi, voice over IP).	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
Communicate using all manifestations of e-mail as needed for personal and curricular purposes, demonstrating appropriate and responsible use.	C	
Use all available online communication capabilities to make inquiries, do research and disseminate results.	C	
Research emerging communication technologies (e.g., wireless systems, open source software and systems, virtual reality).	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
Evaluate information collected to answer both personal and curricular needs to determine its accuracy, authority, objectivity, currency and coverage.	C	
Acknowledge intellectual property in using information sources.	C	
Determine and apply an evaluative process to all information sources chosen for a project.	C	

Benchmark B:

Apply a research process model to conduct research and meet information needs

Skills	Level	Comments
Derive a personally developed research model to conduct independent research.	C	
Refine the information question to focus the research process, modifying the question as necessary to broaden or narrow the inquiry.	C	
Critique information sources to determine if different points of view are included	C	
Integrate multiple information sources in the research process.	M	
Create a product to communicate information, representing a personal point of view based on findings.	C	
Adhere to copyright and intellectual property laws and guidelines when creating new products (e.g., standard bibliographic format, permissions to use information created by others).	M	
Monitor progress and evaluate actions during the process, revising and incorporating new information as indicated by personal evaluation	C	
Archive final product in a format accessible in the future.	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
Incorporate defined field searching by initiating a search string identifying the desired field of information to be retrieved (e.g., search author or title).	C	
Create a stand-alone system for tracking Internet resources for personal and academic needs (e.g., postsecondary institutions of interest).	C	
Synthesize search results retrieved from a variety of Internet resources to create an information product for a targeted audience	C	
Critique research retrieved through the Internet for authority, accuracy, objectivity, currency, coverage and relevancy.	C	

Benchmark D: Evaluate choices of electronic resources and determine their strengths and limitations		
Skills	Level	Comments
Research information from electronic archives (e.g., list serv archives, weblogs).	C	
Use a variety of technology resources for curriculum needs and personal information needs (e.g., streaming video, CD/DVD, subscription database).	C	
Evaluate technology resources and determine strengths and weaknesses for curricular or personal needs	C	
Select an appropriate tool, online resource or Web-site based on the information need	C	