

# Michigan Educational Technology Standards (METS) 2009 - 9<sup>th</sup> to 12<sup>th</sup> Checklist

## Grades Nine through Twelve – Technology Standards and Expectations – (prior to the completion of grade 12)

### 9\_12.CI. Creativity and Innovation – By the end of Grade 12 each student will:

1. apply advanced software features (e.g. built-in thesaurus, templates, styles) to redesign the appearance of word processing documents, spreadsheets, and presentations
2. create a web page (e.g., Dreamweaver, iGoogle, Kompozer)
3. use a variety of media and formats to design, develop, publish, and present projects (e.g., newsletters, web sites, presentations, photo galleries)

### 9\_12.CC. Communication and Collaboration - By the end of Grade 12 each student will:

1. plan and implement a collaborative project using telecommunications tools (e.g., ePals, discussion boards, online groups, groupware, interactive web sites, videoconferencing)
2. describe the potential risks and dangers associated with online communications

### 9\_12.RI. Research and Information Fluency – By the end of Grade 12 each student will:

1. develop a plan to gather information using various research strategies (e.g., interviews, questionnaires, experiments, online surveys)
2. identify, evaluate, and select appropriate online sources to answer content related questions
3. demonstrate the ability to use library and online databases for accessing information (e. g. MEL, Proquest, Infosource, United Streaming)
4. distinguish between fact, opinion, point of view, and inference
5. evaluate information found in selected online sources on the basis of accuracy and validity
6. evaluate resources for stereotyping, prejudice, and misrepresentation
7. understand that using information from a single internet source might result in the reporting of erroneous facts and that multiple sources must always be researched
8. research examples of inappropriate use of technologies and participate in related classroom activities (e.g., debates, reports, mock trials, presentations)

1. use digital resources (e.g., educational software, simulations, models) for problem solving and independent learning
2. analyze the capabilities and limitations of digital resources and evaluate their potential to address personal, social, lifelong learning, and career needs
3. devise a research question or hypothesis using information and communication technology resources, analyze the findings to make a decision based on the findings, and report the results

### 9\_12.DC. Digital Citizenship – By the end of Grade 12 each student will:

1. identify legal and ethical issues related to the use of information and communication technologies ( e.g., properly selecting, acquiring, and citing resources)
2. create appropriate citations for resources when presenting research findings
3. discuss and adhere to fair use policies and copyright guidelines

### 9\_12.TC. Technology Operations and Concepts - By the end of Grade 12 each student will:

1. complete at least one online credit, or non-credit, course or online learning experience
2. use an online tutorial and discuss the benefits and disadvantages of this method of learning
3. explore career opportunities, especially those related to science, technology, engineering, and mathematics and identify their related technology skill requirements
4. describe uses of various existing or emerging technology resources (e.g., podcasting, webcasting, videoconferencing, online file sharing, global positioning software)
5. identify an example of an assistive technology and describe its purpose and use
6. participate in a virtual environment as a strategy to build 21st century learning skills
7. assess and solve hardware and software problems by using online help or other user documentation
8. explain the differences between freeware, shareware, open source, and commercial software

9. participate in experiences associated with technology-related careers
10. identify common graphic, audio, and video file formats (e.g., jpeg, gif, bmp, mpeg, wav, wmv, mp3, flv, avi, pdf)
11. understand and discuss how assistive technologies can benefit all individuals
12. demonstrate how to import/export text, graphics, or audio files
13. proofread and edit a document using an application's spelling and grammar checking functions