Approved by the State Board of Education - October 2009

2009 Michigan Educational Technology Standards for Students

Grades 3-5

A goal of No Child Left Behind is that schools will "*assist every student in crossing the digital divide by ensuring that every student is technologically literate by the time the student finishes the eighth grade, regardless of the student's race, ethnicity, gender, family income, geographic location, or disability.*"

The Michigan Educational Technology Standards for Students (METS-S) are aligned with the International Society for Technology in Education's (ISTE) National Educational Technology Standards for Students (NETS-S) and the Framework for 21st Century Learning. The Michigan standards are intended to provide educators with a specific set of learning expectations that can be used to drive educational technology literacy assessments.

These standards are best delivered by authentic instruction and assessment with direct curricular ties and it is intended that these Standards will be integrated into all content areas. The preparation of our students to the successful in the 21st Century is the responsibility of all educators.

Technology Literacy

Technology literacy is the ability to responsibly use appropriate technology to communicate, solve problems, and access, manage, integrate, evaluate, and create information to improve learning in all subject areas and to acquire lifelong knowledge and skills in the 21st century.

Universal Design for Learning (UDL)

CAST (the Center for Applied Special Technology) offers three principles to guide UDL: provide multiple means of representation; provide multiple means of expression; and provide multiple means of engagement. CAST asserts that "These UDL Guidelines will assist curriculum developers (these may include teachers, publishers, and others) in designing flexible curricula that reduce barriers to learning and provide robust learning supports to meet the needs of all learners." Educational technologies can be valuable resources for educators in addressing the UDL guidelines. For additional information on UDL, visit the CAST website: www.cast.org.

For additional information and resources relating to the 2009 METS-S, please visit: http://www.techplan.org/METS

3-5.CI. Creativity and Innovation—By the end of grade 5 each student will:

3-5.CI.1. produce a media-rich digital project aligned to state curriculum standards (e.g., fable, folk tale, mystery, tall tale, historical fiction)

3-5.CI.2. use a variety of technology tools and applications to demonstrate his/her creativity by creating or modifying works of art, music, movies, or presentations

3-5.CI.3. participate in discussions about technologies (past, present, and future) to understand these technologies are the result of human creativity

3-5.CC. Communication and Collaboration—By the end of grade 5 each student will:

3-5.CC.1. use digital communication tools (e.g., e-mail, wikis, blogs, IM, chat rooms, videoconferencing, Moodle, Blackboard) and online resources for group learning projects

3-5-2.CC.2. identify how different software applications may be used to share similar information, based on the intended audience (e.g., presentations for classmates, newsletters for parents)

3-5-2.CC.3. use a variety of media and formats to create and edit products (e.g., presentations, newsletters, brochures, web pages) to communicate information and ideas to various audiences

3-5.RI. Research and Information Literacy—By the end of grade 5 each student will:

3-5.RI.1. identify search strategies for locating information with support from teachers or library media specialists

3-5.RI.2. use digital tools to find, organize, analyze, synthesize, and evaluate information

3-5.RI.3. understand and discuss that web sites and digital resources may contain inaccurate or biased information

3-5.RI.4. understand that using information from a single Internet source might result in the reporting of erroneous facts and that multiple sources should always be researched

3-5.CT. Critical Thinking, Problem Solving, and Decision Making —By the end of grade 5 each student will:

3-5.CT.1. use digital resources to access information that can assist in making informed decisions about everyday matters (e.g., which movie to see, which product to purchase)

3-5.CT.2. use information and communication technology tools (e.g., calculators, probes, videos, DVDs, educational software) to collect, organize, and evaluate information to assist with solving problems

3-5.CT.3. use digital resources to identify and investigate a state, national, or global issue (e.g., global warming, economy, environment)

3-5.DC. Digital Citizenship—By the end of grade 5 each student will:

3-5.DC.1. discuss scenarios involving acceptable and unacceptable uses of technology (e.g., file-sharing, social networking, text messaging, cyber bullying, plagiarism)

3-5.DC.2. recognize issues involving ethical use of information (e.g., copyright adherence, source citation)

3-5.DC.3. describe precautions surrounding personal safety that should be taken when online

3-5.DC.4. identify the types of personal information that should not be given out on the Internet (name, address, phone number, picture, school name)

3-5.TC. Technology Operations and Concepts—By the end of grade 5 each student will:

3-5.TC.1. use basic input and output devices (e.g., printers, scanners, digital cameras, video recorders, projectors)

3-5.TC.2. describe ways technology has changed life at school and at home

3-5.TC.3. understand and discuss how assistive technologies can benefit all individuals

3-5.TC.4. demonstrate proper care in the use of computer hardware, software, peripherals, and storage media

3-5.TC.5. know how to exchange files with other students using technology (e.g., network file sharing, flash drives)

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