2009 Michigan Educational Technology Standards for Students

Grades PK-2

MICHIGAN Department of Education

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

PK-2.CI. Creativity and Innovation—By the end of grade 2 each student will:

PK-2.CI.1. use a variety of digital tools (e.g., word processors, drawing tools, simulations, presentation software, graphical organizers) to learn, create, and convey original ideas or illustrate concepts

PK-2.CC. Communication and Collaboration—By the end of grade 2 each student will:

PK-2.CC.1. work together when using digital tools (e.g., word processor, drawing, presentation software) to convey ideas or illustrate simple concepts relating to a specified project

PK-2.CC.2. use a variety of developmentally appropriate digital tools (e.g., word processors, paint programs) to communicate ideas to classmates, families, and others

PK-2.RI. Research and Information Literacy—By the end of grade 2 each student will:

PK-2.RI.1. interact with Internet based resources

PK-2.RI.2. use digital resources (e.g., dictionaries, encyclopedias, graphs, graphical organizers) to locate and interpret information relating to a specific curricular topic, with assistance from teachers, school library media specialists, parents, or student partners

PK-2.CT. Critical Thinking, Problem Solving, and Decision Making —By the end of grade 2 each student will:

PK-2.CT.1. explain ways that technology can be used to solve problems (e.g., cell phones, traffic lights, GPS units)

PK-2.CT.2. use digital resources (e.g., dictionaries, encyclopedias, search engines, web sites) to solve developmentally appropriate problems, with assistance from teachers, parents, school media specialists, or student partners

PK-2.DC. Digital Citizenship—By the end of grade 2 each student will:

PK-2.DC.1. describe appropriate and inappropriate uses of technology (e.g., computers, Internet, e-mail, cell phones) and describe consequences of inappropriate uses

PK-2.DC.2. know the Michigan Cyber Safety Initiative's three rules (Keep Safe, Keep Away, Keep Telling)

PK-2.DC.3. identify personal information that should not be shared on the Internet (e.g. name, address, phone)

PK-2.DC.4. know to inform a trusted adult if he/she receives or views an online communication which makes him/her feel uncomfortable, or if someone whom he/she doesn't know is trying to communicate with him/her or asking for personal information

PK-2.TC. Technology Operations and Concepts—By the end of grade 2 each student will:

PK-2.TC.1. discuss advantages and disadvantages of using technology

PK-2.TC.2. be able to use basic menu commands to perform common operations (e.g., open, close, save, print)

PK-2.TC.3. recognize and name the major hardware components in a computer system (e.g., computer, monitor, keyboard, mouse, printer)

PK-2.TC.4. discuss the basic care for computer hardware and various media types (e.g., CDs, DVDs)

PK-2.TC.5. use developmentally appropriate and accurate terminology when talking about technology

PK-2.TC.6. understand that technology is a tool to help him/her complete a task, and is a source of information, learning, and entertainment

PK-2.TC.7. demonstrate the ability to navigate in virtual environments (e.g., electronic books, games, simulation software, web sites)