

ITEM Information & Technology Literacy Standards

Adopted July 2019

Mission

Information and Technology Educators of Minnesota (ITEM) provides leadership and service by promoting professional growth, facilitating collaboration among its members, establishing standards, and advocating for 21st century learners.

Vision

For all Minnesota students and educators to be effective users of information and technology.

Beliefs

- Literacy in all its forms is a fundamental life skill.
- Learners must have access to a broad range of resources and evolving technologies for fundamental 21st century learning.
- Student voluntary selection of reading materials from a diverse collection boosts achievement.
- Information and technology literacy, which we define as research process, reading and media literacy, responsible use, and technology skills should be embedded in all content areas and integrated into learning.
- All educators must be skilled in the use of technologies to improve learning, information use, and communication.
- School and district media and technology teams must collaborate in the areas of information and technology support and training to ensure increased learning and effective management.
- The principles of intellectual freedom must be preserved.

Standards Background

The original standards were adopted by MEMO (Minnesota Educational Media Organization) in 2004 and were based on the 1998 ISTE and AASL standards. In 2006, MEMO developed a scope and sequence that further developed those standards. The MEMO standards were refreshed in 2007 & 2009.

Executive Summary

The goal of this project was to update the ITEM Standards in Information and Technology Literacy. These standards are based on the [AASL Standards Framework for Learning](#) (2018) and ISTE [Standards for Students](#) (2016). The updated standards reflect ITEM's mission and vision of supporting students to be effective users of information and technology. ITEM recognizes there are more standards from ISTE and AASL. These are the standards ITEM believes are most important to the goal of integrating information literacy and technology into learning for the students of Minnesota. The standards are divided into seven strands:

Strand 1: Inquire & Design - *Students will develop strategies and/or design processes to find information/solutions relevant to their question or personal need.*

Strand 2: Connect Globally - *Students will work effectively with others to broaden perspectives and work toward common goals.*

Strand 3: Collaborate, Communicate, and Create - *Students will participate effectively in groups to pursue and generate information.*

Strand 4: Collect, Organize, and Curate - *Students will access and gather information efficiently and effectively.*

Strand 5: Discover, Read, and Reflect - *Students will gain an increased enjoyment of literature and informational text and grow in their ability to locate and select appropriate reading materials independently.*

Strand 6: Engage as Digital Citizens - *Students will demonstrate safe, legal, and ethical creating and sharing of knowledge products independently while engaging in a community of practice.*

Strand 7: Problem Solve - *Students will develop and employ strategies for understanding and solving problems in ways that leverage the power of computational thinking, cycles of design, implementation, and reflection.*

Strand 1. Inquire/Design

Students will develop strategies and/or design processes to find information/solutions relevant to their question or personal need.

ITEM Standard 1.1: Formulate questions about a personal interest or curricular topic. (AASL I.A1)

ITEM Standard 1.2: Use evidence to investigate questions. (AASL I.B1)

ITEM Standard 1.3: Deliver and implement a plan to fill knowledge gaps. (AASL I.B2)

ITEM Standard 1.4: Interact with content presented by others. (AASL I.C1)

ITEM Standard 1.5: Use reflection to guide informed decisions. (AASL I.D4)

ITEM Standard 1.6: Know and use a deliberate design process for generating ideas, testing theories, creating innovative artifacts, or solving authentic problems. (ISTE 4A)

ITEM Standard 1.7: Exhibit tolerance for ambiguity, perseverance, and capacity to work with open-ended problems. (ISTE 4D)

Strand 2. Connect Globally

Students will work effectively with others to broaden perspectives and work toward common goals.

ITEM Standard 2.1: Use digital tools to connect with learners from a variety of backgrounds and cultures, engaging with them in ways that broaden mutual understanding and learning. (ISTE 7A)

ITEM Standard 2.2: Use collaborative technologies to work with others, including peers, experts, or community members, to examine issues and problems from multiple viewpoints. (ISTE 7B)

ITEM Standard 2.3: Contribute constructively to project teams, assuming various roles and responsibilities to work effectively toward a common goal. (ISTE 7C)

ITEM Standard 2.4: Explore local and global issues and use collaborative technologies to work with others to investigate solutions. (ISTE 7D)

Strand 3. Collaborate, Communicate, and Create

Students will participate effectively in groups to pursue and generate information.

ITEM Standard 3.1: Establish connections with other learners to build their own prior knowledge and create new knowledge. (AASL III.B2)

ITEM Standard 3.2: Involve diverse perspectives in their own inquiry processes. (AASL III.C2)

ITEM Standard 3.3: Recognize learning as a social responsibility. (AASL III.D2)

ITEM Standard 3.4: Choose appropriate platforms and tools for meeting desired objectives of their creation or communication. (ISTE 6A)

ITEM Standard 3.5: Create original works or responsibly repurpose or remix digital resources into new creations. (ISTE 6B)

Strand 4. Collect, Organize, and Curate

Students will access and gather information efficiently and effectively.

ITEM Standard 4.1: Identify possible sources of information. (AASL IV.A2)

ITEM Standard 4.2: Make critical choices about information sources to use. (AASL IV.A3)

ITEM Standard 4.3: Seek a variety of sources. (AASL IV.B1)

ITEM Standard 4.4: Collect information representing diverse perspectives. (AASL IV.B2)

ITEM Standard 4.5: Systematically question and assess the validity and accuracy of information. (AASL IV.B3)

ITEM Standard 4.6: Organize information by priority, topic, or other systematic scheme. (AASL IV.B4)

ITEM Standard 4.7: Contribute to collaboratively constructed information sites by ethically using and reproducing others' work. (AASL IV.C2)

ITEM Standard 4.8: Curate information from digital resources using a variety of tools and methods to create collections of artifacts that demonstrate meaningful connections or conclusions. (ISTE 3C)

ITEM Standard 4.9: Build knowledge by actively exploring real-world issues and problems, developing ideas and theories, and pursuing answers and solutions. (ISTE 3D)

Strand 5. Discover, Read, and Reflect

Students will gain an increased enjoyment of literature and informational text and grow in their ability to locate and select appropriate reading materials independently.

ITEM Standard 5.1: Read widely and deeply in multiple formats and write and create for a variety of purposes. (AASL V.A1)

ITEM Standard 5.2: Reflect and question assumptions and possible misconceptions. (AASL V.A2)

ITEM Standard 5.3: Express curiosity about a topic of personal interest or curricular relevance. (AASL V.C1)

ITEM Standard 5.4: Critically analyze information found in electronic, print, and mass media and use a variety of these sources. (MN ELA Speaking, Viewing, Listening and Media Literacy 7)

ITEM Standard 5.5: Communicate using traditional or digital multimedia formats and digital writing and publishing for a specific purpose. (MN ELA Speaking, Viewing, Listening and Media Literacy 8)

ITEM Standard 5.6: Read and comprehend complex literary and informational texts independently and proficiently. (MN ELA Reading 10)

Strand 6: Engage as Digital Citizens

Students will demonstrate safe, legal, and ethical creating and sharing of knowledge products independently while engaging in a community of practice.

ITEM Standard 6.1: Responsibly apply information, technology, and media to learning. (AASL VI.A1)

ITEM Standard 6.2: Understand the ethical use of information, technology, and media. (AASL VI.A2)

ITEM Standard 6.3: Evaluate information for accuracy, validity, social and cultural context, and appropriateness for need. (AASL VI.A3)

ITEM Standard 6.4: Share information resources in accordance with modification, reuse, and remix policies. (AASL VI.C1)

ITEM Standard 6.5: Personalize their use of information and information technologies. (AASL VI.D1)

ITEM Standard 6.6: Engage in positive, safe, legal, and ethical behaviors when using technology, including social interactions online or when using networked devices. (ISTE 2B)

ITEM Standard 6.7: Demonstrate an understanding of and respect for the rights and obligations of using and sharing intellectual property. (ISTE 2C)

ITEM Standard 6.8: Manage their personal data to maintain digital privacy and security and are aware of data-collection technology used to track their navigation online. (ISTE 2D)

Strand 7: Problem Solve

Students will develop and employ strategies for understanding and solving problems in ways that leverage the power of computational thinking, cycles of design, implementation, and reflection.

ITEM Standard 7.1: Persist through self-directed pursuits by tinkering and making. (AASL V.B.2)

ITEM Standard 7.2: Understand the fundamental concepts of technology operations, demonstrate the ability to choose, use, and troubleshoot current technologies, and are able to transfer their knowledge to explore emerging technologies. (ISTE 1D)

ITEM Standard 7.3: Collect data or identify relevant data sets, use digital tools to analyze them, and represent data in various ways to facilitate problem-solving and decision making. (ISTE 5B)

ITEM Standard 7.4: Break problems into component parts, extract key information, and develop descriptive models to understand complex systems or facilitate problem-solving. (ISTE 5C)

ITEM Standard 7.5: Understand how automation works and use algorithmic thinking to develop a sequence of steps to create and test automated solutions. (ISTE 5D)