



Technical skills include a basic knowledge of hardware, software, and connectivity.



Framework for the Information and Technology Literacy Standards

Summary of the Standards

I. *The Research Process*

A. *Standard:* The student will follow a systematic research process that involves formulating a question, gathering, evaluating, and organizing information, drawing conclusions, presenting results to an audience, and evaluating both the product and the process.

II. *Technology Use*

A. *Standard:* The student will select and use appropriate technology for educational and personal goals.

III. *Reading and Media Literacy*

A. *Standard:* The student will select and read for educational and personal goals.

B. *Standard:* The student will appreciate literature and understand literacy conventions.

C. *Standard:* The student will critically evaluate films, recordings, and other multimedia formats.

D. *Standard:* The student will create video and multimedia productions.

IV. *Responsible Use of Information and Technology*

A. *Standard:* The student will understand ethical and safety issues related to information use including plagiarism and citing sources, copyright, intellectual freedom, acceptable use of school technologies, privacy, and evaluation of information.

B. *Standard:* The student will use resources responsibly.

C. *Standard:* The student will use resources and learn independently and in collaboration with others.



To be information literate, students need to understand and use systematic research methods that include a broad understanding of information resources and specific skills woven into the process.



Research
Reading
Responsibility
Technology

RECOMMENDED STANDARDS FOR

Information AND Technology Literacy

MINNESOTA EDUCATIONAL MEDIA ORGANIZATION



Serving school media and
information technology professionals

Introduction and Overview

Information literacy begins with curiosity about how the world works. The information-literate learner observes and listens, categorizes and classifies what is observed, and integrates this information with what is already known. From initial curiosity, the information-literate learner formulates questions and then gathers information from a variety of sources to help answer them. These sources are read (listened to or viewed) and evaluated. Ideas are organized and conclusions drawn. Information-literate learners use what they have learned to make a decision or determine an action. The information literacy process also involves communicating what is learned using a variety of media and evaluating both the process used and the product.

The information-literate learner integrates technology skills, reading and media literacy skills, and demonstrates an understanding of ethical issues such as plagiarism, copyright, and intellectual freedom into this research process.

In order to effectively research a question and defend a conclusion, learners need to understand not just where and how to find information, but how information is created – how facts and theories come to be accepted by our community – so that they can evaluate the accuracy of the information they find and understand how information supports or transforms ideas.

These standards describe the processes a learner must understand and skills practiced in order to meet a minimum level of information literacy. They are divided into four general areas:

Information literacy begins with curiosity about how the world works.

THE RESEARCH PROCESS

Rationale: To be information literate, students need to understand and use systematic research methods that include a broad understanding of information resources and specific skills woven into the process. Research must be learned through practice, with insight and coaching provided by a knowledgeable educator. The standards described here build on and expand the research and writing standards described in the Minnesota academic standards for language arts, science, social studies, mathematics and the arts.

TECHNOLOGY USE

Rationale: Technical skills include a basic knowledge of hardware, software, and connectivity. Students need to learn to manipulate various information devices from computers to cameras. They need to understand the basics of file management and how networks function to deliver information to the desktop. They need to understand the functions of application software so that they can select the proper tools to access, organize, or communicate information. Finally, they need to understand the role and effects of technology in the workplace and society.

READING AND MEDIA LITERACY

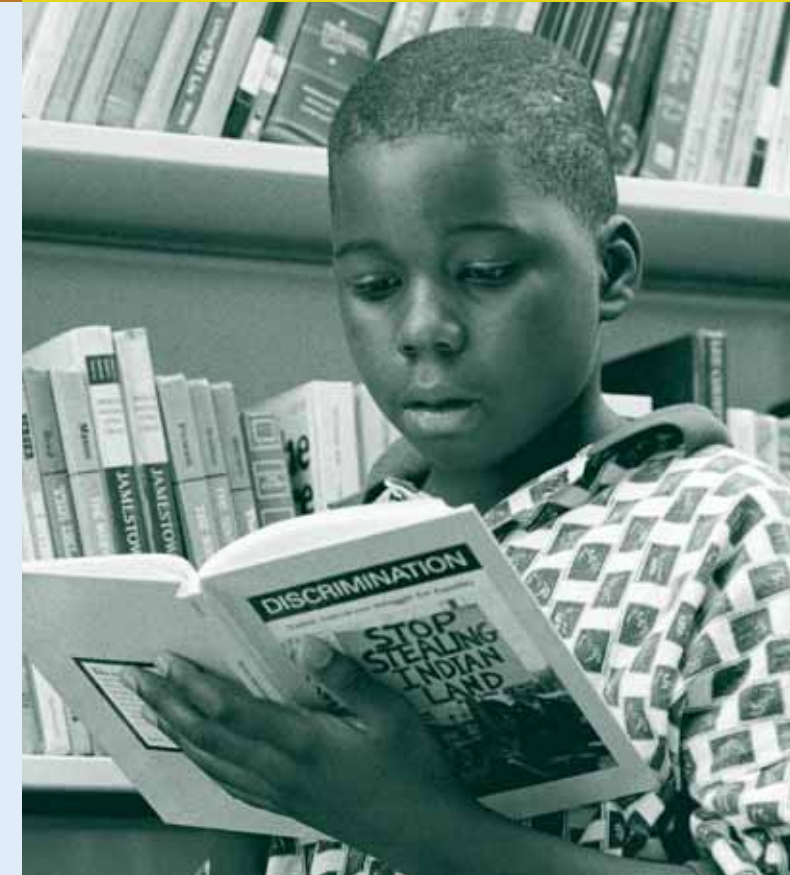
Rationale: The research process requires that students be able to extract information from texts and media, evaluating content for bias and credibility. Students need to understand how to select books and other materials at their reading level. Students need to appreciate literature and understand literary conventions. In order to ‘see’ how information and emotions are communicated in non-print media, students need to create media using images and sound.

RESPONSIBLE USE OF TECHNOLOGY AND INFORMATION

Rationale: In order to conduct research with integrity, students must learn about protecting intellectual property. They must use resources responsibly. They must learn to work independently and in groups to share resources with other learners. They must know how to operate safely and ethically in networked environments, respecting the privacy and property of others as well as protecting their own. Finally, they need to recognize the dangers in online communications and in not critically evaluating information sources.

Information literacy is most effectively learned by completing relevant assignments or projects throughout the school curriculum. Students will use information literacy throughout their lives – whether buying a car, developing a new business model, or investigating new theories in astrophysics. Information literacy is learning how to learn.

The recommended standards are the product of the Minnesota Educational Media Organization (MEMO) and have been endorsed by the Minnesota Library Association (MLA). MEMO is a professional organization established to support educators who play a vital role in fostering information and technology literacy, reading, and applying technology to improve school management. These educators include library media specialists, teachers who focus on technology integration, administrators, technology support specialists, building and district technology coordinators, curriculum specialists, and the paraprofessional staff who support library media and technology programs. The Minnesota Library Association (MLA) is a statewide membership organization representing libraries, library workers, and library supporters. For information on implementing the standards, to www.memoweb.org.



The following documents were used in developing the Information and Technology Literacy Standards:

- International Society for Technology in Education (ISTE), National Educational Technology Standards.
- American Association of School Librarians (AASL) & American Educational Communication and Technology (AECT) Information Power: Building Partnerships for Learning.
- Student Technology Literacy Proficiency Checklist (Response to No Child Left Behind, Title II, Part D: Enhancing Education Through Technology), Learning Point Associates, 2003.
- Big 6 Information Literacy Model.
- North Central Regional Educational Laboratory. enGauge: A Framework for Effective Technology Use.
- Carol Kuhlthau, Information Search Process, 1994.
- Mid-Continent Research for Education and Learning (McREL), Content Knowledge.
- State information literacy standards recently adopted in Wisconsin, North Dakota, Colorado, Ohio and Alaska.