

CORE TECHNOLOGY STANDARDS FOR ALL TEACHERS

(Revised October 2001)

Note: Standard 9 has been deleted. “Collaborative Relationships” are addressed in Standard 9 of the Illinois Professional Teaching Standards.

General Standards For All Teachers

The competent teacher will have, and continually develop, the knowledge and skills in learning technologies to be able to appropriately and responsibly use tools, resources, processes, and systems to retrieve, assess and evaluate information from various media. The competent teacher will use that knowledge, along with the necessary skills and information, to assist Illinois learners in solving problems, communicating clearly, making informed decisions, and in constructing new knowledge, products, or systems in diverse, engaged learning environments.

STANDARD 1 - Basic Computer/Technology Operations and Concepts

The competent teacher will use computer systems to run software; to access, generate, and manipulate data; and to publish results. He or she will also evaluate performance of hardware and software components of computer systems and apply basic troubleshooting strategies as needed.

Knowledge Indicator: *The competent teacher*

- 1A. Understands how to run computer software; access, generate and manipulate data; and publish results.

Performance Indicators: *The competent teacher*

- 1B. Operates a multimedia computer system with related peripheral devices to successfully install and use a variety of software packages.
- 1C. Uses appropriate terminology related to computers and technology in written and oral communications.
- 1D. Describes and implements basic troubleshooting techniques for multimedia computer systems with related peripheral devices.
- 1E. Uses imaging devices such as scanners, digital cameras, and/or video cameras with computer systems and software.
- 1F. Demonstrates knowledge of uses of computers and technology in education, business and industry, and society.

STANDARD 2 - Personal and Professional Use of Technology

The competent teacher will apply tools for enhancing personal professional growth and productivity; will use technology in communicating, collaborating, conducting research, and solving problems and will promote equitable, ethical, and legal use of computer/technology resources.

Knowledge Indicator: *The competent teacher*

- 2A. Understands how to use technology in communicating, collaborating, conducting research, and solving problems.

Performance Indicators: *The competent teacher*

- 2B. Identifies computer and other related technology resources for facilitating lifelong learning and emerging roles of the learner and the educator in engaged, collaborative learning environments.
- 2C. Uses computers and other learning technologies to support problem solving, data collection, information management, communications, presentations, and decision making.
- 2D. Uses productivity tools for word processing, database management, and spreadsheet applications, and basic multi-media presentations.
- 2E. Uses computer-based technologies including telecommunications to access information and enhance personal and professional productivity.
- 2F. Demonstrates awareness of resources for adaptive/assistive devices for students with special needs.
- 2G. Demonstrates knowledge of ethical and legal issues concerning use of computers and technology.
- 2H. Adheres to copyright laws and guidelines in the access and use of information from various technologies.
- 2I. Demonstrates knowledge of broadcast instruction, audio/video conferencing, and other distant learning applications.
- 2J. Ensures policies and practices are in place to provide equal access to media and technology resources for students regardless of race, ethnicity, gender, religion or socioeconomic status.

STANDARD 3 - Application of Technology in Instruction

The competent teacher will apply learning technologies that support instruction in their grade level and subject areas. He or she must plan and deliver instructional units that integrate a variety of software, applications, and learning tools. Lessons developed must reflect effective grouping and assessment strategies for diverse populations.

Knowledge Indicator: *The competent teacher*

- 3A. Understands how to apply learning technologies that support instruction in their grade level and subject areas.

Performance Indicators: *The competent teacher*

- 3B. Explores, evaluates, and uses computer/technology resources including applications, tools, educational software, and associated documentation.
- 3C. Describes current instructional principles, research, and appropriate assessment practices as related to the use of computers and technology resources in the curriculum.
- 3D. Designs, implements and assesses student learning activities that integrate computers/technology for a variety of student grouping strategies and for diverse student populations.
- 3E. Practices socially responsible, ethical, and legal use of technology, information, and software resources.
- 3F. Designs student learning activities that foster equitable, ethical, and legal use of technology by students.

STANDARD 4 - Social, Ethical and Human Issues

The competent teacher will apply concepts and skills in making decisions concerning the social, ethical, and human issues related to computing and technology. The competent teacher will understand the changes in information technologies, their effects on workplace and society, their potential to address lifelong learning and workplace needs, and the consequences of misuse.

Knowledge Indicator: *The competent teacher*

- 4A. Understands the social, ethical, and human issues related to computing and technology.

Performance Indicators: *The competent teacher*

- 4B. Describes the historical development and important trends affecting the evolution of technology and its probable future roles in society.
- 4C. Describes strategies for facilitating consideration of ethical, legal and human issues involving school purchasing and policy decisions.

STANDARD 5 - Productivity Tools

The competent teacher will integrate advanced features of technology-based productivity tools to support instruction, extend communication outside the classroom, enhance classroom management, perform administrative routines more effectively, and become more productive in daily tasks.

Knowledge Indicator: *The competent teacher*

- 5A. Knows advanced features of technology-based productivity tools.

Performance Indicators: *The competent teacher*

- 5B. Uses advanced features of word processing, desktop publishing, graphics programs and utilities to develop professional products.
- 5C. Uses spreadsheets for analyzing, organizing and displaying numeric data graphically.
- 5D. Designs and manipulates databases and generates customized reports.
- 5E. Uses teacher utility and classroom management tools to design solutions for a specific purpose.
- 5F. Identifies, selects and integrates video and digital images in varying formats for use in presentations, publications and/or other products.
- 5G. Applies specific-purpose electronic devices (such as a graphing calculator, language translator, scientific probeware, or electronic thesaurus) in appropriate content areas.
- 5H. Uses features of applications that integrate word processing, database, spreadsheet, communication and other tools.

STANDARD 6 - Telecommunications and Information Access:

The competent teacher will use telecommunications and information-access resources to support instruction.

Knowledge Indicator: *The competent teacher*

- 6A. Knows how to access telecommunications resources to support instruction.

Performance Indicators: *The competent teacher*

- 6B. Accesses and uses telecommunications tools and resources for information sharing, remote information access and retrieval, and multimedia/hypermedia publishing.
- 6C. Uses electronic mail and web browser applications for communications and for research to support instruction.
- 6D. Uses automated, on-line search tools and intelligent agents to identify and index desired information resources.

STANDARD 7 - Research, Problem Solving, and Product Development.

The competent teacher will use computers and other technologies in research, problem solving, and product development. The competent teacher will appropriately use a variety of media, presentation, and authoring packages; plan and participate in team and collaborative projects that require critical analysis and evaluation; and present products developed.

Knowledge Indicator: *The competent teacher*

- 7A. Understands how to use computers and other technologies in research, problem solving, and product development.

Performance Indicators: *The competent teacher*

- 7B. Identifies basic principles of instructional design associated with the development of multimedia and hypermedia learning materials.
- 7C. Develops simple hypermedia and multimedia products that apply basic instructional design principles.
- 7D. Selects appropriate tools for communicating concepts, conducting research, and solving problems for an intended audience and purpose.
- 7E. Identifies examples of emerging programming, authoring, or problem solving environments.
- 7F. Collaborates with on-line workgroups to build bodies of knowledge around specific topics.
- 7G. Uses a computer projection device to support and deliver oral presentations.
- 7H. Designs and publishes simple on-line documents that present information and include links to critical resources.
- 7I. Develops instructional units that involve compiling, organizing, analyzing, and synthesizing of information, and uses technology to support these processes.
- 7J. Conducts research and evaluates on-line sources of information that support and enhance the curriculum.
- 7K. Makes use of development readings and other resource materials from professional and trade organizations to improve teaching and learning.
- 7L. Participates in courses and other professional development activities to enhance teaching and learning.

STANDARD 8 - Information Literacy Skills:

The competent teacher will develop information literacy skills to be able to access, evaluate and use information to improve teaching and learning.

Knowledge Indicator: *The competent teacher*

- 8A. Understands how to access, evaluate and use information to improve teaching and learning.

Performance Indicators: *The competent teacher*

- 8B. Models evaluation and use of information to solve problems and make decisions.
- 8C. Expects students to intellectually access, evaluate, and use information to solve problems and make decisions in all subject areas.
- 8D. Structures instruction and designs learning tasks and assignments to reflect higher level thinking skills.
- 8E. Structures and/or facilitates cooperative learning groups as part of students' tasks and assignments.

These standards are built upon Illinois resources, and the work of state, national, and international groups that have developed standards for pre-service preparation, beginning licensure, and advanced certification in technology areas. Among these are the standards of the International Society for Technology in Education (ISTE), the National Council for Accreditation of Teacher Education (NCATE), the Association for Educational Communications and Technology (AECT), the American Association of School Librarians (AASL), as well as existing and/or proposed technology competency guidelines from the states of Colorado, Texas, North Carolina, and Wisconsin.