Technology Skills

Introduction to Technology Skills

This section addresses the technology skills learners may need to function as students, citizens, and employees. The Technology Planning Committee (2000-2001) was comprised of Administrators, Instructors, Learners, Business Representatives, and Technology Specialists. They created this list to show the range of technology skills that learners might develop based on their skills, interests and needs.

The Learner Standards include a full range of technology skills learners should ideally be able to achieve. This is not a checklist of what each learner should accomplish in an adult education class. Instead, skills addressed should be selected based on available technology and the learning needs of individual learners. As you read the Standards you will note that the focus is on "USING" technology for a purpose.

Technology encompasses skills from the "low" end (using a tape player) to the "high" end (using the Internet to complete a research project). It is difficult (and unnecessary) to align the level of a learner's technology skills to the level of language skills. Even literacy level students may have been exposed to the Internet ("high" tech).

Technology is an area in which instructors may find themselves beyond their own comfort levels. It is essential that we take advantage of professional development and other opportunities to expand our knowledge base and to stretch ourselves. Instructor hesitation and limitations in the area of technology need not limit the learners in our programs.

The Adult Learner Standards and Indicators of Competency for Technology (April 2001) include the following:
Learners…
1. understand basic technology concept to operate computers, calculators, and other technologies
2. construct meaning from information
3. create a quality product
4. learn independently with appropriate support
5. communicate effectively
6. participate effectively as group members
7. use information responsibly

Maryland State Department of Education Literacy Works
Adult Learner Technology Standards and Competencies

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Standard	Indicator of Competency

1. **Learners understand basic technology concepts to operate computers, calculators and other technologies**.	a) Use input devices to successfully operate computers, VCRs, audiotapes, and other technologies
	    • Correctly turn on and off appropriate technology
	    • Use a mouse and its buttons to operate simple programs
	    • Identify the keys on a keyboard
	    • Demonstrate keyboarding skills
	 b) Use output devices to successfully operate computers, VCRs, audiotapes, and other technologies
	    • Use computer monitor
	    • Use computer printer
	    • Record using videotapes and audiotapes
	    • Save computer files
	 c) Demonstrate proper care procedures for a variety of hardware and software.
	    • Use the keyboard, mouse, touch screen or other available input devices with regard for appropriate procedures
	    • Identify and recognize care procedures for a variety of hardware and software
	    • Follow class rules related to the use of technology
	 d) Use a computer word processing program to effectively create, edit, save, print and open files
	 e) Use a variety of available technology resources for both directed and independent learning activities
	 f) Utilize multimedia to accomplish a specific task
	 g) Communicate about technology using accurate terminology
	    • Develop vocabulary to include descriptions, processes and strategies
	 h) Use multimedia resources, such as interactive books, educational software, and multimedia encyclopedias, to support learning
	 i) Discuss common uses of technology in daily life and the advantages and disadvantages those uses provide
	 j) Know basic strategies for identifying and solving routine hardware and software problems that occur during everyday use (know when and whom to ask for help)
	 k) Make informed choices among technology options and resources
	 l) Demonstrate healthy computer ergonomics such as appropriate posture and hand/wrist positions when using any type of keyboard
	 m) Identify and use resources and strategies for keeping abreast of advances in technology

Standard	Indicator of Competency

2. Learners construct meaning from information.	a) Determine information needs
	  • State the purpose
	  • Explore options
	  • Define a manageable focus
	b) Develop information seeking strategies to locate information
	  • Frame appropriate questions
	  • Identify likely technology-based resources of information
	  • Use a variety of strategies
	  • Build a reasonable timeline
	c) Use a variety of technology resources and tools
	  • Use appropriate technology resources for directed listening, viewing, reading, problem-solving, and organizing activities
	  • Use a variety of technology resources, including calculators, videos and educational software for problem solving, self-directed learning, and extended learning activities
	  • Choose and use a variety of appropriate electronic searching tools including Internet browsers and electronic reference books
	d) Acquire information
	  • Use a variety of technology resources and tools
	  • Determine which technology tools are the most useful for the specific purpose and context
	  • Read for significant details and concepts
	  • Extract appropriate details and concepts
	  • Record bibliographic information using currently accepted formats
	e) Identify and evaluate sources of information
	f) Analyze information relative to need
	  • Identify criteria and evaluate accuracy, format, relevance, appropriateness, quality, comprehensiveness, authoritativeness, completeness, reliability, and timeliness of electronic information sources
	  • Apply criteria to information
	  • Select appropriate material
	g) Organize information
	  • Classify and sort information independently
	  • Assemble material to meet information needs
	h) Process information
	  • Integrate information from a variety of sources
	  • Make inferences & draw conclusions
	  • Construct meaning
	  • Build connections to prior knowledge
	i) Act on information
	  • Answer a question; Satisfy a curiosity
	  • Take informed action
	  • Develop a product
	  • Solve a problem
	  • Present information
	j) Evaluate process and product

Standard	Indicator of Competency

3. Learners create a quality product.	a) Recognize a quality product
	b) Plan the quality product
	   • Establish a clear purpose
	   • Consider the audience
	   • Determine product content
	   • Choose format
	   • Develop process
	   • Identify necessary resources
	c) Create and present a quality product
	   • Use general-purpose technology-based productivity tools and resources
	   • Integrate appropriate media
	   • Communicate clearly
	d) Evaluate quality product

4. Learners learn independently with appropriate support.	a) Use technology to accomplish personal goals
	b) Independently establish clear information goals and manage progress toward achieving goals
	c) Independently consult media sources
	   • Read for pleasure, to learn and to solve problems
	   • Use media sources for information and personal needs
	   • Seek answers to questions
	   • Consider alternative perspectives
	   • Evaluate differing points of view
	e) Explore topics of interest
	   • Use the public library media center and other information sources
	   • Ask for help
	   • Recognize organization and structure of information centers
	f) Keep up-to-date on new technologies that may be useful for communicating, managing information, solving problems, and carrying out daily tasks

5. Learners communicate effectively.	a) Determine communication needs
	   • Establish a clear purpose
	   • Consider the audience
	   • Choose appropriate format
	b) Use a variety of technology resources (word processing documents, the Internet, E-mail, online discussions) to interact, collaborate, and publish
	c) Use a variety of formats
	d) Use a variety of applications to enhance communication
	e) Choose and use a variety of appropriate technology tools, such as spell check and grammar check

Standard	Indicator of Competency

6. Learners participate effectively as group members.	a) Work cooperatively and collaboratively with peers in using technology
	b) Collaborate with peers to investigate curriculum-related problems, issues and information
	c) Collaborate with peers to develop products or solutions to problems
	d) Help group determine information needs
	  • Work with group to define project or problem parameters
	  • Collaborate to determine: common definitions, questions, processes and information access skills
	e) Accept and share responsibility for planning and producing a quality group product
	f) Collaborate to determine relevant information
	  • Select information using various resources and technologies
	  • Work with others to organize information
	  • Help integrate information from a variety of sources
	g) Show respect for others' ideas, backgrounds and learning styles
	h) Offer useful information to the group and defend that information when appropriate
	  • Discuss opposing viewpoints constructively
	  • Help create projects that reflect differences among individuals
	  • Offer well thought-out evidence justifying information presented
	  • Demonstrate effective interpersonal communication skills

Standard	Indicator of Competency
7. Learners use information responsibly.	a) Practice ethical usage of information and information technologies • Adhere to copyright guidelines • Cite references in proper format • Do not plagiarize • Recognize copyright as protection for the copyright holder b) Follow guidelines and etiquette using electronic information sources • Utilize electronic resources to locate, retrieve, and transfer information c) Maintain the physical integrity of information resources and facilities • Follow policies and procedures • Preserve integrity of printed and nonprinted electronic materials • Acknowledge and respect the rights of others d) Recognize the need for equal access to technology-based material and resources e) Identify and evaluate sources of information for potential risk and benefit f) Understand that there are no oversight standards for the Internet, including chat rooms and web sites