

The technology standards for students are divided into six broad categories. Standards within each category are to be introduced, reinforced, and mastered by students. These categories provide a framework for linking performance indicators found within the Profiles for Technology-Literate Students to the standards. Teachers can use these standards and profiles as guidelines for planning technology-based activities in which students achieve success in learning, communication, and life skills.

TECHNOLOGY STANDARDS FOR STUDENTS

1. Basic operations and concepts

* Students demonstrate a sound understanding of the nature and operation of technology systems.

* Students are proficient in use of technology.

2. Social, ethical, and human issues.

* Students understand the ethical, cultural, and societal issues related to technology.

* Students practice responsible use of technology systems, information, and software.

* Students develop positive attitudes toward technology uses that support lifelong learning, collaboration, personal pursuits, and productivity.

Profiles for Technology- Literate Students

Grades PK – 2

Prior to completion of Grade 2 students will:

- 1,2 1. Use input devices (e.g., mouse, keyboard, remote control) and output devices (e.g., monitor, printer) to successfully operate computers, VCRs, audiotapes, and other technologies. (1)
- 1 2. Use a variety of media and technology resources for directed and independent learning activities. (1.3)
- 1,2 3. Communicate about technology using developmentally appropriate and accurate terminology. (1)
- 2 4. Use developmentally appropriate multimedia resources (e.g., interactive books, educational software, elementary multimedia encyclopedias) to support learning. (1)
- 1 5. Work cooperatively and collaboratively with peers, family members, and others when using technology in the classroom. (2)
- 1,2 6. Demonstrate positive social and ethical behaviors when using technology. (2)
- 1,2 7. Practice responsible use of technology systems and software. (2)
8. Create developmentally appropriate multimedia products with support from teachers, family members, or student partners. (3)
- 2 9. Use technology resources (e.g., puzzles, logical thinking programs, writing tools, digital cameras, drawing tools) for problem solving, communication, and illustration of thoughts, ideas, and stories. (3,4,5,6)
10. Gather information and communicate with others using telecommunications, with support from teachers, family members, or student partners. (4)

Grades 3 – 5

Prior to completion of Grade 5 students will:

- 3,4,5 1. Use keyboards and other common input and output devices (including adaptive device when necessary) efficiently and effectively. (1)
- 3,4,5 2. Discuss common use of technology in daily life and the advantages and disadvantages those uses provide. (1, 2)
- 3,4,5 3. Discuss basic issues related to responsible use of technology and information and describe personal consequences of inappropriate use. (2)
- 3,4 4. Use general purpose productivity tools and peripherals to support personal productivity, remediate skill deficits, and facilitate learning throughout the curriculum. (3)
5. Use technology tools (e.g., multimedia authoring, presentation, Web tools, digital cameras, scanners) for individual and collaborative writing, communication, and publishing activities to create knowledge products for audiences inside and outside the classroom. (3, 4)
- 4 6. Use telecommunications efficiently and effectively to access remote information, communicate with others in support of direct and independent learning, and pursue personal interests. (4)

3. Technology productivity tools

* Students use technology tools to enhance learning, increase productivity, and promote creativity.

* Students use productivity tools to collaborate in constructing technology-enhanced models, preparing publication, and producing other creative works.

4. Technology communications tools

* Students use telecommunications to collaborate, publish, and interact with peers, experts, and other audiences.

* use a variety of media and formats to communicate information and ideas effectively to multiple audiences.

5. Technology research tools

* Students use technology to locate, evaluate, and collect information from a variety of sources.

* Students use technology tools to process data and report results.

* Students evaluate and select new information resources and technological innovations based on the appropriateness to specific tasks.

6. Technology problem-solving and decision-making tools

* Students use technology resources for solving problems and making informed decisions.

* Students employ technology in the development of strategies for solving problems in the real world.

7. Use telecommunications and online resources (e.g., e-mail, online discussions, Web environments) to participate in collaborative problem-solving activities for the purpose of developing solutions or products for audiences inside and outside the classroom. (4, 5)

4 8. Use technology resources (e.g., calculators, data collection probes, videos, educational software) for problem-solving, self-directed learning, and extended learning activities. (5, 6)

5 9. Determine when technology is useful and select the appropriate tool(s) and technology resources to address a variety of tasks and problems. (5, 6)

10. Evaluate the accuracy, relevance, appropriateness, comprehensiveness, and bias of electronic information sources. (6)

Grades 6 – 8

Prior to completion of Grade 8 students will:

6,7,8 1. Apply strategies for identifying and solving routine hardware and software problems that occur during everyday use. (1)

7,8 2. Demonstrate knowledge of current changes in information technologies and the effect those changes have on the workplace society. (2)

6,7,8 3. Exhibit legal and ethical behaviors when using information and technology, and discuss consequences of misuse. (2)

6,7,8 4. Use content-specific tools, software, and simulations (e.g., environmental probes, graphing calculators, exploratory environments, Web tools) to support learning and research. (3, 5)

6,7,8 5. Apply productivity/multimedia tools and peripherals to support personal productivity, group collaboration, and learning throughout the curriculum. (3, 6)

6,7,8 6. Design, develop, publish, and present products (e.g., Web pages, videotapes) using technology resources that demonstrate and communicate curriculum concepts to audiences inside and outside the classroom. (4, 5, 6)

7,8 7. Collaborate with peers, experts, and others using telecommunications and collaborative tools to investigate curriculum-related problems, issues, and information, and to develop solutions or products for audiences inside and outside the classroom. (4, 5)

6,7,8 8. Select and use appropriate tools and technology resources to accomplish a variety of tasks and solve problems. (5, 6)

6,7,8 9. Demonstrate an understanding of concepts underlying hardware, software, and connectivity and of practical application to learning and problem solving. (1, 6)

6,7,8 10. Research and evaluate the accuracy, relevance, appropriateness, comprehensiveness, and bias of electronic information sources concerning real-world problems. (2, 5, 6)

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-very useful for teachers