Standards for Technology Literate Students

These threads are woven throughout all curricular areas and units of study.

Based on the National Education Technology Standards (http://www.iste.org), students learn to use computer tools, applications and resources *in a 21st century context,* using real-world examples, applications and experiences to learn academic content in a standards-based curriculum. These standards cover six categories as follows:

1. Basic Operations and Concepts
   o Students demonstrate a sound understanding of the nature and operation of technology systems.
   o Students are proficient in the use of technology.
2. Social, Ethical, and Human Issues
   o Students understand the ethical, cultural, and societal issues related to technology.
   o Students practice responsible use of technology systems, information, and software.
   o Students develop positive attitudes toward technology uses that support lifelong learning, collaboration, personal pursuits, and productivity.
3. Technology Productivity Tools
   o Students use technology tools to enhance learning, increase productivity, and promote creativity.
   o Students use productivity tools to collaborate in constructing technology-enhanced models, preparing publications, and producing other creative works.
4. Technology Communication Tools
   o Students use telecommunications to collaborate, publish, and interact with peers, experts, and other audiences.
   o Students use a variety of media and formats to communicate information and ideas effectively to multiple audiences.
5. Technology Research Tools
   o Students use technology to locate, evaluate, and collect information from variety of sources.
   o Students use technology tools to process data and report results.
   o Students evaluate and select new information resources and technology innovations based on the appropriateness to specific tasks.
6. Technology Problem-Solving and Decision-Making Tools
   o Students use technology resources for solving problems and making informed decisions.
   o Students employ technology in the development of strategies for solving problems in the real world.

The core competencies further define the skills in which students have to demonstrate proficiency in order to meet the District High School Computer Literacy graduation requirement.

Core Competencies for Technology Literacy

Students will show a proficient level of understanding in the following:

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

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

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

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)   (Not a High School Proficiency Requirement)

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

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

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

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

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

Numbers in parentheses following each Core Competency refer to the standard to which the competency is linked.

Core Competencies for Technology Literacy	Technology Competencies
1. Apply strategies for identifying and solving routine hardware and software problems that occur during everyday use.	• General Hardware • General Software • Operating System • Networking
2. Demonstrate knowledge of current changes in information technologies and the effect those changes have on the workplace and society.	• Social and Ethical Practices
3. Exhibit legal and ethical behaviors when using information and technology, and discuss consequences of misuse.	• Social and Ethical Practices
4. Use content-specific tools, software, and simulations (e.g., environmental probes, graphing calculators, exploratory environments, Web tools) to support learning and research. (Not a High School Proficiency Requirement)	• Content-Based Tools • Probeware
5. Apply productivity/multimedia tools and peripherals to support personal productivity, group collaboration, and learning throughout the curriculum.	• Word Processing • Keyboarding • Graphics • Spreadsheet • Graphical Organizers
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.	• Electronic Presentation • Web Authoring • Digital Literacy (Video and Digital Images) • Web Research • Desktop Publishing
7. Collaborate with peers, experts, and others using telecommunications and collaborative tools to investigate curriculum-related problems, issues, and information, and to develop solution or products for audiences inside and outside the classroom.	• Social Communication Tools • Web Research
8. Select and use appropriate tools and technology resources to accomplish a variety of tasks and solve problems.	• Problem Solving
9. Demonstrate an understanding of concepts underlying hardware, software, and connectivity, and of practical applications to learning and problem solving.	• General Hardware • General Software • Operating System • Networking
10. Research and evaluate the accuracy, relevance, appropriateness, comprehensiveness, and bias of electronic information sources concerning real-world problems.	• Web Research