

Sixth Grade Technology Standards

Standard A. Basic operations and concepts

- 6.A.1. Communicate about technology and technology systems, using developmentally appropriate and accurate terminology (e.g. essential components of file structure, computer hardware, and network storage locations)
- 6.A.2. With guidance, retrieve, organize, and transfer files in networked locations, as well as locate applications stored on the machine and the network.
- 6.A.3. Demonstrate functional operation of technology devices (e.g., digital cameras, printers, scanners, and a variety of external data storage devices).
- 6.A.4. Use the formatting capabilities of technology tools for communicating and representing information graphically:
 - Format, edit, insert objects, and print documents created using word processing, desktop publishing, and presentation applications
 - Format spreadsheets for text and number style.
 - Use text wrap and sizing tools to place graphics in relation to text
- 6.A.5. Using PowerPoint presentation software, create, present, and prepare a notes handout for a curriculum-based multimedia project that incorporates text, graphics, sound, transitions, backgrounds, and animation.
- 6.A.6. Use online resources to locate information on the World Wide Web; navigate within and between web sites to access information.
- 6.A.7. Use touch-typing strategies to increase wpm by 25 with 3 errors or fewer without looking at the keyboard.

Standard B. Social, Ethical and Cultural Issues

- 6.B.1. Exhibit responsible use of electronic resources.
 - Use prescribed methods for insuring confidentiality on the network.
 - Identify and adhere to district acceptable use policies
 - In keeping with the copyright law, and as appropriate, cite electronic print and graphic resources used in the creation of a document.
- 6.B.2. Investigate ways that people in different careers and occupations use technology to do their work.

Standard C. Technology Productivity Tools

- 6.C.1. Describe the structure (e.g., cells, rows, columns) and function of spreadsheets, apply simple formatting features; create and use a simple spreadsheet to locate and display data in charts.
- 6.C.2. Apply appropriate industrial tools, processes and technology resources to solve workplace-oriented problems
 - Present solutions using scale and proportion in multi-view sketches and drawings (e.g., isometric and orthographic drawings)
 - Use CAD to create technical drawings

Standard D. Technology Communication Tools

- 6.D.2. Use concept-mapping software (Inspiration) to brainstorm, diagram, plan and organize ideas and presentations
- 6.D.3. Use desktop publishing to create documents for a variety of audiences and purposes

Standard E. Technology Research Tools

- 6.E.1. Construct key words from research questions and combine with search techniques (e.g. "quotes", +, *wildcard) using age-appropriate search engines.
- 6.E.2. Utilize search tools to locate information in electronic encyclopedias, online databases, and other electronic reference tools.

6.E.3. Copy URLs of research websites for citation purposes

Standard F. Problem-Solving and Decision-Making

6.F.1. Apply scientific and mathematical concepts to solve workplace-oriented problems:

- Design and test a quality prototype to meet a need, and evaluate its efficiency in solving the problem.

Seventh Grade Technology Standards and Expectations

Standard A. Basic Operations and Concepts:

7.A.2. Locate, organize, use, maintain and transfer files independently within a networked environment.

7.A.4. Format, edit and present text, data and graphics across applications, using appropriate tools to:

- Insert tables and graphics within a word processing document
- Transfer text and graphics within and between documents and applications (word processing, desktop publishing, presentations, Internet browser)

7.A.7. Use touch-typing strategies to reach a minimum 30 wpm with 3 errors or fewer in three minutes.

Standard B. Social, Ethical and Cultural Issues

7.B.1. Exhibit responsible use of electronic resources.

- Describe and adhere to district acceptable use policies
- Distinguish between fair use and violations of copyright laws as they apply to use of text, graphics, and audio files from electronic sources.
- Identify and categorize domain names in URLs.

7.B.2. Investigate specific technology-related careers and occupations; visit workplaces.

Standard C. Technology Productivity Tools

7.C.1. Describe the structure (e.g., cells, rows, columns) and function of spreadsheets, apply simple formatting features; create and use a simple spreadsheet to locate and display data in charts.

7.C.2. Apply appropriate industrial tools, processes and technology resources to solve workplace-oriented problems:

- Present solutions using scale and proportion in multi-view sketches and drawings (e.g., isometric and orthographic drawings)
- Use CAD to create technical drawings

Standard D. Technology Communication Tools

7.D.2. Use concept-mapping software (Inspiration) to brainstorm, diagram, plan and organize ideas and presentations

7.D.3. Use desktop publishing to create documents for a variety of audiences and purposes.

Standard E. Technology Research Tools

7.E.1. Construct key words from research questions and combine with search techniques (e.g. "quotes", +, *wildcard) using age-appropriate search engines.

7.E.2. Utilize search tools to locate information in electronic encyclopedias, online databases, and other electronic reference tools.

7.E.3. Copy URLs of research websites for citation purposes

Standard F. Problem-Solving and Decision-Making

7.F.1. Apply scientific and mathematical concepts to solve workplace-oriented problems:

- Design and test a quality prototype to meet a need, and evaluate its efficiency in solving the problem.

Eighth Grade Technology Standards and Expectations

Standard A. Basic operations and concepts:

8.A.4. Apply basic skills of formatting, editing, graphics, and printing across applications, using appropriate tools to produce documents that display information in a variety of ways, including:

- Use column settings and tabbing features in a word processing application to display text in columns

8.A.7. Use touch-typing strategies to reach a minimum of 35 wpm with 3 errors or fewer in three minutes.

Standard B. Social, ethical and cultural issues

8.B.1. Make informed choices among technology systems, resources, and services

- Describe and adhere to district acceptable use policies
- Identify indicators of authoritative and less reliable websites and electronic publications when choosing sources of information (e.g., find site sponsor, author, and date the site was last updated; distinguish between commercial and non-commercial sources of information based on the domain name).

8.B.2. Identify and investigate career pathways related to technology.

- Analyze present and future job markets in specific technology-related careers
- Research and present forecasts of new developments in technology and possible consequences

Standard C. Technology Productivity Tools

8.C.1. Use simple databases to organize and analyze information:

- Describe the structure and function of a database and identify its components (e.g., record, field, data types)
- Perform simple database operations (e.g., browse, sort, search, delete, enter data)
- Import data from *Excel*
- Create a multi-field database to collect and analyze data, using sorting, filters, forms and simple queries to organize and analyze records.

8.C.2. Apply appropriate industrial tools, processes and technology resources to solve workplace-oriented problems, using one or more of the following:

- Execute robotic programs
- Conduct experiments with industrial tools

Standard D. Technology Communication Tools

8.D.1. Use e-mail to communicate with experts and other educational partners to explore curriculum and career-based topics.

8.D.2. Integrate the use of concept-mapping, story-boarding, and database tools to prepare reports and presentations.

8.D.3. Publish and present information on a web page using multiple digital sources (text, graphics)

Standard E. Technology Research Tools

8.E.1. Use Boolean searches to execute complex searches in online databases and search engines.

8.E.2. Use databases, spreadsheets, and graphic organizers to categorize information gathered in the research process.

Standard F. Problem-Solving and Decision-Making

8.F.1. Apply scientific and mathematical concepts to solve workplace-oriented problems:

- Design a prototype vehicle within stated parameters, and test its design for aerodynamic efficiency