

Directions for Interpreting the Minimum Required Content

1. **CONTENT STANDARDS** are statements that define what students should know and be able to do at the conclusion of a course or grade. Content standards in this document contain minimum required content. The order in which standards are listed within a course or grade is not intended to convey a sequence for instruction. Each content standard completes the phrase “*Students will.*”

Students will:

Critique digital content for validity, accuracy, bias, currency, and relevance.

(Computer Applications – Content Standard 11)

2. **BULLETS** denote content that is related to the standards and required for instruction. Bulleted content is listed under a standard and identifies additional minimum required content.

Students will:

Identify common hardware and software problems..

- Determining basic troubleshooting strategies to correct hardware and software problems

(Third-Fifth Grade – Content Standard 3)

3. **EXAMPLES** clarify certain components of content standards or bullets. They are illustrative but not exhaustive.

Students will:

Describe advances in technology and the effects of each on the workplace and society.

Examples: agriculture, manufacturing, medicine, warfare, transportation, communication, education

(Sixth-Eighth Grade – Content Standard 10)

Sixth – Eighth Grade Overview

Students in Grades 6-8 possess a wide range of intellectual abilities, learning styles, talents, and interests. These students are experiencing a transitional period that includes physical, social, emotional, and intellectual changes. In addition, students are developing skills to function in a technological society.

The technology content standards for Grades 6-8 are designed to complement all areas of the academic curriculum. In a world where information increases exponentially, students are expected to develop and use critical-thinking and decision-making skills. Digital tools enhance middle school students' emerging abilities to analyze, synthesize, and evaluate information. The integration of technology systems expands and optimizes their ability to use information and to communicate and collaborate with diverse individuals. It is critical for students at these grade levels to expand the knowledge and skills necessary for solving both hypothetical and authentic problems.

In a global world community, students are expected to be responsible digital citizens who practice safe, legal, and responsible use of technology systems and digital media. Students must comprehend the impact of technology on the cultural, social, economic, environmental, and political aspects of society. Positive attitudes toward technology use are essential to support collaboration, learning, and productivity for success in the twenty-first century.

Sixth – Eighth Grade

Technology Operations and Concepts

Students will:

1. Appraise technology systems to determine software and hardware compatibility.
2. Publish digital products that communicate curriculum concepts.
Examples: Web pages, videos, podcasts, multimedia presentations
3. Explain how network systems are connected and used.
Examples: file sharing, collaborating, wireless networking
4. Determine basic troubleshooting strategies to correct common hardware and software problems.
Examples: checking connections, restarting equipment, creating a backup copy of digital data
 - Describing the importance of antivirus and security software
5. Use basic features of word processing, spreadsheets, databases, and presentation software.
Examples: word processing—reports, letters, brochures
spreadsheets—discovering patterns, tracking spending, creating budgets
databases—contact list of addresses and phone numbers
presentation software—slideshow
6. Select specific digital tools for completing curriculum-related tasks.
Examples: spreadsheet for budgets, word processing software for essays, probes for data collection
7. Demonstrate correct keyboarding techniques.

Digital Citizenship

8. Identify safe uses of social networking and electronic communication.
 - Recognizing dangers of online predators
 - Protecting personal information online
9. Practice responsible and legal use of technology systems and digital content.
Examples: avoiding plagiarism; complying with acceptable use policies, copyright laws, and fair use standards; recognizing secure Web sites
 - Identifying examples of computer crime and related penalties
Examples: computer crime—phishing, spoofing, virus and worm dissemination, cyberbullying
penalties—fines, incarceration
 - Citing sources of digital content

10. Describe advances in technology and the effects of each on the workplace and society.
Examples: agriculture, manufacturing, medicine, warfare, transportation, communication, education

Research and Information Fluency

11. Use digital tools and strategies to locate, collect, organize, evaluate, and synthesize information.
Examples: locate—Boolean searches, graphic organizers, spreadsheets, databases
collect—probeware, graphing calculators
organize—graphic organizers, spreadsheet
evaluate—reviewing publication dates, determining credibility
synthesize—word processing software, concept-mapping software

Communication and Collaboration

12. Use digital tools to communicate and collaborate at all levels from interpersonal to global.
Examples: instant messages, e-mail, blogs, wikis, collaborative authoring tools, online learning communities
- Demonstrating digital file transfer
Examples: attaching, uploading, downloading

Critical Thinking, Problem Solving, and Decision Making

13. Use digital tools to formulate solutions to authentic problems.
Examples: electronic graphing tools, probes, spreadsheets

Creativity and Innovation

14. Use digital tools to generate new ideas, products, or processes.
Examples: ideas—predictions, trends
products—animation, video
processes—models, simulations