

Technology Content Standards

Grade Level 9 - these are the core standards met with the completion of Computer Literacy at Lincoln High School. Some standards are also met with certain core classes like Language Arts, Math, Science, and Social Studies

Competency Goal 1. *Demonstrate proficiency in the use of computers and applications, as well as an understanding of the concepts underlying hardware, software, and connectivity. (ISTE NETS-S standards alignment)*

Basic Operations

- 1.1 Identify the platform, version, properties, function, and interoperability of computing devices including a wide range of devices that compute and/or manage digital media. **(3c,6a)**
- 1.2 Use online help and other support to learn about features of hardware and software, as well as to assess and resolve problems. **(6b,6c,3a,3c)**
- 1.3 Describe process to install and uninstall software; compress and expand files. **(6a,6c)**
- 1.4 Explain effective backup and recovery strategies. **(6a,6b,6c)**
- 1.5 Explain criteria for evaluating hardware and software appropriate for a given task including open source software (e.g., features, versions, capacity). **(6a,6b,6d,4a-d)**
- 1.6 Demonstrate keyboarding techniques, including the use of keyboard shortcuts, to complete assignments efficiently and accurately. (For students with disabilities, demonstrate alternate input techniques as appropriate.) Freshmen standard is 35wpm **(6b,6d)**
- 1.7 Identify and assess the capabilities and limitations of emerging technologies. **(1a,1c,1d,2a,3a,3d,4a,4c,4d,6a-d)**
- 1.8 Apply advanced formatting and page layout features when appropriate (e.g., columns, templates, and styles) to improve the appearance of documents and materials. **(1b,2b,3c,6b)**

Example #1 MLA formatted essay

Example #2 Business letter and flyer design project

Spreadsheets

- 1.9 Define and use functions of a spreadsheet application (e.g., sort, filter, find). **(1c,6b,4c)**
- 1.10 Enter formulas and functions; use the auto-fill feature in a spreadsheet application. **(1c,6b,4c)**
- 1.11 Explain and use advanced formatting features of a spreadsheet application (e.g., reposition columns and rows, add and name worksheets). **(1c,6b,4c)**
- 1.12 Differentiate between formulas with absolute and relative cell references. **(1c,6b,4c)**
- 1.13 Use multiple sheets within a workbook **(1c,6b,4c)**
- 1.14 Import and export data between spreadsheets and other applications. **(1c,6b,4c)**
- 1.15 Explain how various formatting options are used to convey information in charts or graphs. **(1b,2b,3c,6b)**
- 1.16 Identify the use of spreadsheet skills in various careers. **(1d,5c)**

Example#1 Budget creation, data analysis and reports

Example#2 Collecting and reporting data in a science lab

Internet, Networking, and Online Communications

- 1.17 Use search engines and online directories. Explain the differences among various search engines and how they rank results. **(1a,3a,4a,4c)**

- 1.18 Explain and demonstrate effective search strategies for locating and retrieving electronic information (e.g., using syntax and Boolean logic operators). **(1a,3a,4a,4c)**
- 1.19 Describe good practices for password protection and authentication.**(5a)**
- 1.20 Use basic HTML Tags to create a web page**(1b,2a,2b,6c)**
- 1.21 Describe the parts of the URL (HTTP, WWW, .COM)**(6a,6b)**
- 1.22 Digital Literacy - Evaluate the authenticity, accuracy, appropriateness, and bias of electronic resources, including web sites.**(3b,5a)**

Example #1 Research for Social Studies current events projects

Example #2 Make your own basic web page using HTML.

Multimedia

- 1.23 Identify technology tools (e.g., authoring tools) that can be used to create a multimedia product. **(1a,1b,2a,2b)**
- 1.24 Use a variety of applications to plan, create, and edit multimedia products (e.g., slide presentations, videos, animations, podcasts). **(1a,1b,2a,2b)**

Example #1 “My Life” multimedia presentation project

Example #2 Basic video production project

Competency Goal 2 *Demonstrate the responsible use of technology and an understanding of ethics and safety issues in using electronic media at home, in school, and in society. (ISTE NETS-S standards alignment)*

Ethics

- 2.1 Demonstrate compliance with the school’s Acceptable Use Policy.**(5a-d,3c)**
- 2.2 Explain issues related to the responsible use of technology (e.g., privacy, security).**(5a,3c)**
- 2.3 Explain laws restricting the use of copyrighted materials.**(5a,3c)**
- 2.4 Identify examples of plagiarism, and discuss the possible consequences of plagiarizing the work of others.**(5a,3c)**
- 2.5 Write correct in-text citations and reference lists for text and images gathered from electronic sources.**(5a,3b,3c,6b)**
- 2.6 Give examples of the appropriate and responsible use of communication tools (e.g., chats, instant messaging, blogs, wikis).**(5a)**
- 2.7 Discuss misuse of technology for personal and commercial reasons (e.g., software piracy, unauthorized file sharing/downloading, virus spreading, and hacking); explain possible consequences.**(5a,5c,5b,5d)**

Example #1 iSafe internet safety program

Example #2 The use of turnitin.com.

Health & Safety

- 2.8 Evaluate school and work environments in terms of ergonomic practices.**(1d,5c)**
- 2.9 Describe and use safe and appropriate practices when participating in online communities (e.g., discussion groups, blogs, social networking sites).**(5a-d)**
- 2.10 Explain and use practices to protect one's personal safety online (e.g., not sharing personal information with strangers, being alert for online predators, reporting suspicious activities). **(5a-d)**

Example #1 iSafe modules

Example #2 Discussion of workstation ergonomics

Competency Goal 3. *Demonstrate the ability to use technology for research, critical thinking, problem solving, decision making, communication, collaboration, creativity, and innovation. (ISTE NETS-S standards alignment)*

Creativity and Innovation

- 3.1 Utilize the basic design elements necessary to produce effective print and multimedia projects. **(1b,2b,6b)**
- 3.2 Students use critical thinking skills to plan and conduct research, manage projects, solve problems, and make informed decisions using appropriate digital tools and resources. **(4a-d)**

Example #1 Postcard and logo design project

Example #2 Design brochure project

Communication

- 3.3 Use a variety of media to present information for specific purposes (e.g., reports, research papers, presentations, newsletters), citing sources. **(2b,3b,3c,6b)**
- 3.4 Demonstrate how the use of various techniques and effects (e.g., editing, music, color, rhetorical devices) can be used to convey meaning in media. **(1a,2b,6b)**
- 3.5 Use online communication tools to collaborate with peers, community members, and field experts as appropriate (e.g., bulletin boards, discussion forums, web conferencing). **(2a-d)**

Example #1 Newsletters and Brochures

Example #2 Skype class conference and guest speaker, ePals

Adapted from the following sources;

www.doe.mass.edu/edtech/standards/itstand.pdf

The ISTE NETS-S and Performance Indicators for Students