

## **Instructional Technology Standards Grades 9 – 12**

### **Standard 1. Demonstrate proficiency in the use of computers and applications as well as an understanding of concepts underlying hardware, software, and connectivity.**

By the end of 12<sup>th</sup> grade students should:

- 1.36 Run multiple applications simultaneously, alternating among them.
- 1.39 Save (also retrieve, load, and import) a word-processed document in different file formats (e.g., RTF, HTML).
- 1.40 Use a variety of external peripherals (e.g., printers, Zip drives, scanner, digital camera) and understand how they connect to a computer.
- 1.41 Perform efficient keyboarding technique
- 1.42 Import/export and link data between word-processed document and other applications.
- 1.43 Duplicate database structure without data.
- 1.44 Use features of a database program such as mailing labels and mail merges.
- 1.45 Import/export and link data between database and other applications.
- 1.46 Use advanced formatting features of a spreadsheet application (e.g., reposition columns and rows, add and name worksheets).
- 1.47 Use formulas in a spreadsheet application.
- 1.48 Import/export data between spreadsheet and other applications.
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- 1.49 Customize formatting of charts or graphs created in spreadsheet.
- 1.50 Define and use functions of a spreadsheet such as sort, filter, find.
- 1.51 In a spreadsheet application, use various number formats (e.g., scientific notation, percentages, exponents) as appropriate.
- 1.52 In a browser, organize bookmarks into folders for further reference.
- 1.53 Know how to select and use search engines. Understand the differences between search engines.
- 1.54 Explain effective search strategies to locate and retrieve electronic information (e.g., understand and use syntax and Boolean logic operators).
- 1.57 Create a multimedia presentation, desktop-published report, or Web page that incorporates data from other files.
- 1.58 Create and manipulate illustrations using a drawing or painting program (e.g., adjust scale, size, shape).
- 1.60 Select the appropriate technology tool for a task.

### **Standard 2. Demonstrate responsible use of technology and an understanding of ethics and safety issues in using electronic media.**

- 2.17 Demonstrate a clear understanding of the school's Acceptable Use Policy.
- 2.18 Explain laws restricting use of copyrighted materials on the Internet.
- 2.19 Explain how to evaluate electronic sources of information.
- 2.20 Cite electronic sources correctly.
- 2.21 Understand issues of ergonomics and practice safe use of equipment.

### **Standard 3. Demonstrate ability to use technology for research, problem-solving, and communication. Students locate, evaluate, collect, and process information from a variety of electronic sources. Students use telecommunications and other media to interact or collaborate with peers, experts, and other audiences.**

- 3.12 In conducting research use all appropriate electronic sources (e.g., Web sites, online periodical databases, online catalogs).
- 3.13 Integrate (with correct citations) electronic research results into a research project.
- 3.14 Routinely evaluate Web sites for authenticity when using them.
- 3.15 Present information, ideas, and results of work using any of a variety of communications technologies (e.g., multimedia presentations, Web pages, videotapes, desktop-published documents).
- 3.16 Collect, organize, analyze, and graphically present data using the most appropriate tools (e.g., spreadsheet, database, graphing, and concept-mapping tools).
- 3.17 Import graphics, photos, and other media into report or presentation, citing sources appropriately.
- 3.18 Create multiple links among various pieces of information residing in different applications (e.g., a chart imported from a spreadsheet into a word-processed report can be linked to update automatically when the data is changed in the spreadsheet).
- 3.19 Demonstrate how specialized technology tools can be used for problem-solving, decision-making, and creativity (e.g., simulation software, environmental probes, computer-aided design, geographic information systems, dynamic geometric software, graphing calculators, art and music composition software).
- 3.20 Demonstrate the function of electronic conferencing tools such as Internet bulletin boards, listserv, electronic classrooms, and interactive video.