

Standard 1. Demonstrate proficiency in the use of computers and applications as well as an understanding of concepts underlying hardware, software, and connectivity.			
Exploratory Concepts and Skills	Strands	Software	Projects
	1.11 Identify components of a computer system, understand their functions, and use appropriate terminology in speaking about them (e.g., operating system, hard drive, memory, window).	Teacher Instruction	WebQuest
	1.12 Identify and use basic features of computer operating system (e.g., format/initialize disks; access information on size and format of a file; create folders on local hard drive).	Teacher Instruction/ Windows Operating System	Organizing Files with Folders by Subject
	1.13 Save a file to the desktop, the hard drive, and external storage spaces (e.g., floppy disk, CD ROM, virtual electronic space).	Teacher Instruction	Saving to Floppy Drive, Burning a CD, saving to Flash Drive (Portable Storage Device)
	1.14 Select a printer and <u>print</u> a document with appropriate page setup and orientation.	MS Word	Selecting appropriate printers (Lab, Classroom or Lexmarks)
	1.15 Operate peripheral equipment (e.g., scanner, digital camera, camcorder).	(need new equipment)	future media station
	1.16 Develop efficient <u>keyboarding technique</u> .	Type to Learn	5 - 10 Minute Lab Time
	1.17 Identify and use <u>editing</u> and <u>formatting</u> features of a <u>word processing</u> program (e.g., centering, line spacing, margins, cut and paste, fonts, styles, spelling, page numbers).	MS Word	Word Processing and Projects
	1.18 <u>Insert images</u> (e.g., graphics, clip art, tables) from other files into word-processed document.	MS Word, Inspiration, PowerPoint, Internet	Reports and Projects
	1.19 Describe structure and function of <u>database</u> and identify components (e.g., record, field).	(need software)	
	1.20 Create an original <u>database</u> , defining field formats and adding new records.	(need software)	
	1.21 Perform simple operations in a <u>database</u> (e.g., browse, sort, search, delete, add data).	Excel	Graphing
	1.22 Describe structure and function of <u>spreadsheet</u> (e.g., cells, rows, columns, formulas) and apply formatting features.	Excel	Graphing

Standard 1 Cont. Demonstrate proficiency in the use of computers and applications as well as an understanding of concepts underlying hardware, software, and connectivity.			
Exploratory Concepts and Skills	Strands	Software	Projects
	1.23 Create an original <u>spreadsheet</u> , entering simple formulas.	NA	
	1.24 Produce simple <u>charts</u> from spreadsheet.	Excel	Graphs
	1.25 Identify and use <u>navigation</u> features of <u>browser</u> (e.g., "go," "back," "forward").	Internet	Review at the Beginning of the Year
	1.26 Using a browser, " <u>bookmark</u> " a Website for future reference.	Internet	Choosing Important Reliable Sites for Research Projects
	1.27 Identify basic elements of a <u>Website</u> (e.g., URL, hyperlinks, site map, etc.).	Internet	Be sure to use Technological Vocabulary (ex: "Click on the hyperlinks." Instead of : "Click on the underlined link".)
	1.28 <u>Copy an image</u> from a <u>Website</u> into a file on desktop; write a correct citation <u>caption</u> in keeping with copyright law.	Internet into Software Program (MS Word, Inspiration, PowerPoint)	Bibliography Form, Reports and Projects
	1.29 Using e-mail, create and send a message. (Student use of e-mail is determined by district policy and may be a class-wide activity if students do not have individual accounts.)	NA	
	1.30 Open an e-mail attachment and save it to the desktop. (District discretion applies.)	NA	
	1.31 Use correct terminology in speaking about electronic communication (e.g., browser, search engine, online).	Teacher Instruction	Be sure to use Technological Vocabulary during Instructon.
	1.32 Create a <u>slide presentation</u> using appropriate applications.	PowerPoint	Explorers, Astronomy, American Revolution Reports and Projects
	1.33 Identify and use <u>drawing</u> and <u>painting</u> applications as appropriate for class projects.	MS Word and PowerPoint	Astronomy
	1.34 Identify appropriate applications for a <u>classroom project</u> .	Lab Software (MS Word, PowerPoint, Inspiration)	Create a project that allows children to choose the proper software

Standard 2. Demonstrate responsible use of technology and an understanding of ethics and safety issues in using electronic media.			
Exploratory Concepts and Skills	Strands	Software	Projects
	2.6 Explain and demonstrate understanding of classroom rules regarding responsible use of computers (responsible behavior around equipment, respect for other people's work, and appropriate collaborative behavior).	Teacher Instruction and Posted Rules	Review at the Beginning of the Year
	2.7 Explain and demonstrate understanding of classroom rules regarding ethical and legal behavior in copying files, applications, and media.	Teacher Instruction and Posted Rules	Review at the Beginning of the Year
	2.8 Explain potential problem of computer viruses and exercise caution in opening e-mail attachments from unknown sources. (Use of e-mail is at district discretion.)	Teacher Instruction and Posted Rules	Review at the Beginning of the Year
	2.9 Explain safe practices for sharing personal information via e-mail and the Internet. (Uses of e-mail is at district discretion.)	Teacher Instruction	Review at the Beginning of the Year
	2.10 Explain proper e-mail etiquette. (Use of e-mail is at district discretion.)	NA	
	2.11 Describe and demonstrate knowledge of the school's Acceptable Use Policy, and know the consequences of violating that policy.	Teacher Instruction/ District Form also on TopsfieldSchools.org website	Sept.
	2.12 Validate a Website for authenticity (e.g., find site sponsor, author, and date the site was last updated).	Teacher Instruction/ Internet	Internet Bibliographies on Proctor Website
	2.13 Explain how media and technology can be misused to distort or exaggerate information.	Teacher Instruction	Reliable and Non-reliable Sources
	2.14 Write correct citations for text and images gathered from electronic sources. Understand that use of materials is limited by the fair use rule of copyright law.	Teacher Instruction	Bibliography Form, Reports and Projects
	2.15 Develop an awareness of the issue of ergonomics (e.g., Repetitive Stress Injuries) and how to use equipment safely.	Teacher Instruction	Review at the Beginning of the Year

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.			
Exploratory Concepts and Skills	Strands	Software	Projects
	3.3 Explore the use of content-specific tools to enhance understanding of curriculum content (e.g., environmental probes, sensors, robotics, simulation software, and measuring devices).	Science & Math Labs	Outside of Tech Lab: Science Curriculum
	3.4 Collaborate with teacher and classmates in creating a multimedia presentation to communicate learning with others.	PowerPoint	Explorers, Astronomy, American Revolution Reports and Projects
	3.5 Collaborate with classmates and teacher to exchange e-mail with another classroom (at discretion of district and teacher).	Class E-mail	(create project)
	3.6 In keeping with the research process outlined in Standard 24 of the English Language Arts Curriculum Framework, identify electronic sources of information (e.g., Internet, CD ROM, online periodical databases, and online catalogs).	Internet, Teacher Instruction	Bibliography Form, Reports and Projects
	3.7 Use search engines effectively to find relevant, unbiased, and current information on a subject. (Standard 2 performance indicators apply - I.e. evaluate Websites and write correct citations for sources.)	Internet, Teacher Instruction, Bookmarked Web Pages	Supervised Searching, Research and Reports
	3.8 Organize information that is collected using a variety of tools (e.g., spreadsheet, database, saved files).	MS Word, Inspiration, Excel, Retrieving Saved Files	Creating and Retrieving Files and Organizing into Folders, Charts, Webbing and Diagrams
	3.9 Communicate results of research and learning with others using the most appropriate tools (e.g., desktop published or word processed report, multimedia presentation).	MS Word, PowerPoint, Inspiration	Presentations, Word Processing and / or Organizing into Charts, Webbing and Diagrams
	3.10 Manipulate data using charting tools and graphic organizers (e.g., concept mapping, flow charting, and outlining software) to connect ideas and organize information.	Ms Word, Excel, PowerPoint & Inspiration	Ms Word Tables & Diagrams, Excel Spread Sheets, Inspiration Webbing
	3.11 Under teacher's guidance, and at discretion of district, use e-mail to communicate with others (e.g., students in other classrooms, experts in a subject, teachers).	Class E-mail	(create project)