

**Farrington-Kaiser Complex Area
Grades 9-12 Technology Scope and Sequence**

rev. 2/27/03

Basic Operations and Concepts	Social, Ethical and Human Issues	Technology as a Tool for Productivity	Technology as a Tool for Communications	Technology as a Tool for Research	Technology as a Tool for Problem Solving and Decision-Making
<p>Students demonstrate a sound understanding of the nature and operation of technology systems. Students are proficient in the use of technologists.</p>	<p>Students understand the ethical, cultural, and societal issues related to technology. Students practice responsible use of technology systems, information, and software.</p>	<p>Students use technology tools to enhance learning, increase productivity, and promote creativity. Students use productivity tools to collaborate in constructing technology-enhanced models, preparing publications, and producing other creative works.</p>	<p>Students use technology to communicate, to collaborate, publish, and interact with peers, experts, and other audiences. Students use a variety of media and formats to communicate information and ideas effectively to multiple audiences.</p>	<p>Students use technology to locate, evaluate, and collect information from a variety of sources. Students use technology tools to process data and report results. Students evaluate and select new information resources and technological innovations based on the appropriateness to specific tasks.</p>	<p>Students use technology resources for solving problems and making informed decisions. Students employ technology in the development of strategies for solving problems in the real world.</p>
<p>Use Internet-related terminology (including but not limited to e-mail, URL, electronic bookmarks, Internet, intranet, WWW, HTML)</p> <p>States and/or demonstrates the different applications for various hardware and software programs, storage media (e.g., CDs, floppy disks & their connections) and based on this, make a decision about the most effective and appropriate use of them in applying the computer technology to a given situation. Student should also be able to justify their decision.</p> <p>Demonstrate skills necessary for transforming data for universal sharing.</p> <p>Demonstrate keyboarding proficiency while building speed to 35+ WPM.</p> <p>Demonstrate familiarity with operating systems</p>	<p>Demonstrate proper etiquette and implementation of acceptable use policies as related to digital technologies.</p> <p>Comply with laws and examine issues regarding technology in society.</p> <p>Identify and apply copyright laws/issues and models, ethical acquisition and use of digital information, and citing resources correctly.</p> <p>Describe consequences regarding piracy, intentional virus setting, and invasion of privacy.</p> <p>Identify the impact of technology on life globally.</p> <p>Gain awareness of various technology-related careers and of how technology is impacting our world today.</p>	<p>Participates in a telementoring program with a business/work world mentor (note: telementoring program needs to follow a recommended structure in order to maintain the safety and privacy of the student participants).</p> <p>Shows basic competency in using 'industrial standard software' used in the workplace or in using specialized computer applications as appropriate for specific tasks, e.g. music composition software, computer-assisted drawing and drafting programs, mathematics modeling software, scientific measurement instruments, etc.</p> <p>Demonstrates functions within a software program used in class that go beyond what has been learned directly from the instructor and can show some applications of those self-discovered functions.</p> <p>Use a computer to generate modifiable flow charts, time lines, organizational charts, project plans (such as Gantt charts), and calendars which will help the student plan and organize complex or group information problem-solving tasks.</p> <p>Demonstrates ability to use hand-held computers (e.g. personal digital assistants or PDAs) to organize their contacts and work.</p> <p>Take notes and outline with a word processor, database, presentation or similar productivity program.</p> <p>Use electronic spreadsheets, databases, and statistical software to process and analyze statistical data.</p>	<p>Demonstrate proficiency in the use of multimedia authoring programs by creating linear or non-linear projects incorporating text, audio, video, and graphics.</p> <p>Use productivity tools to create interdisciplinary, multimedia presentations/documents for defined audiences (slide shows, posters, newsletters, brochures, or reports which include audio, video, text and graphics.)</p> <p>Appropriately participate in electronic communities such as: email, chat, newsgroups, etc.</p> <p>Demonstrate appropriate use of fonts, styles, and sizes as well as effective use of graphics and page design to communicate effectively.</p>	<p>Use strategies to locate and acquire information on Internet, intranet, and collaborative software.</p> <p>Use a variety of strategies to locate and acquire electronic information in a variety of formats such as: audio-video clips, pictures, and documents.</p> <p>Search independently using appropriate sources.</p>	<p>Determine and employ methods to evaluate the electronic information for accuracy and validity.</p> <p>Use research skills and electronic communication to create new knowledge.</p> <p>Participate with electronic communities as a learner, initiator, contributor, and teacher/mentor.</p>