Kentucky Technology

Grades 6, 7, 8

Adopted 2010

Information, Communication and Productivity

Enduring Knowledge - Understandings

- appropriate terminology, proper keyboarding, computer operations and applications assist to gain confidence in the use of technology.
- technology (e.g. keyboarding, word processing, spreadsheets, databases, hardware, scanners, digital and video cameras) is used effectively and efficiently to accomplish a task.
- technology is used to communicate in a variety of ways.
- productivity tools are used effectively and efficiently to accomplish a task.

Skills and Concepts - Information

- use a variety of technology (e.g., probeware, handhelds, digital and video cameras, scanners) to collect, analyze and present in all content areas
- recognize, discuss and use terms/concepts related to the protection of computers, networks and information (e.g., virus protection, network security, passwords, firewalls, privacy laws)
- use proper keyboarding techniques, optimal posture and correct hand placement (e.g., continue appropriate finger reaches and building speed)

Skills and Concepts - Communication

- use technology to communicate in a variety of modes (e.g., audio, speech to text, print, media)
- select and use appropriate technology to collect, analyze and share information
- use online collaboration and interactive projects (e.g., email, videoconferencing) to communicate with others (e.g., experts, mentors)
- use a variety of electronic formats (e.g., web publishing, oral presentations, journals and multimedia presentations) to summarize and communicate results

Skills and Concepts - Productivity

- use productivity tools to complete content assignments and projects
- construct and publish information in printed and digital formats (e.g., printed reports, resumes, brochures, charts, multimedia presentations, videos and websites) for authentic audiences
- use technology to develop innovative and creative products

Safety and Ethical/Social Issues

Enduring Knowledge - Understandings

- collaborative and interactive projects use technology to enhance learning.
- acceptable technology etiquette is essential to respectful social interactions and good citizenship.
- ethical use of technology is necessary to ensure safety, privacy and legal issues.
- technology is used in occupations as a basic skill to be successful and productive in a global society.
- assistive technology supports learning to ensure equitable access to a productive life.

Skills and Concepts - Safety

- explain the importance of safe Internet use (e.g., iSafe skills)
- apply safe behavior when using technology

Skills and Concepts - Ethical Issues

- describe intellectual property issues related to technology
- practice responsible (e.g., virus protection, passwords) use of technology adhering to the Acceptable Use Policy (AUP) as well as other state and federal laws
- model ethical behavior relating to security, privacy, passwords and personal information and recognize possible consequences of misuse
- use legal and ethical practices when completing digital projects/school work and credit all participants for their contribution to the work
- investigate basic issues related to responsible use of technology and describe personal consequences of inappropriate use
- investigate software piracy, its impact on the technology industry and possible repercussions to individuals and/or the school district

Skills and Concepts - Human Issues

- use appropriate behavior related to computers, networks, digital information (e.g., security, privacy, passwords, personal information)
- use proper social etiquette with any technology (e.g., email, blogs, IM, telephone, help desk) while collaborating with peers, experts and others
- use technology to engage in interactive projects in the classroom
- describe how societal expectations drive the acceptance and use of new products and systems
- investigate how the use of technology affects humans in various ways (e.g., safety, comfort, choices and attitudes)
- explore how technology is used in different occupations
- engage technology to support learning (e.g., online courses, online assessments)
- conclude that assistive technology supports learning to ensure equitable access to a productive life

Research, Inquiry/Problem-Solving and Innovation

Enduring Knowledge - Understandings

- technology supports creative thinking and implementation of new ideas to reach goals.
- technology supports critical thinking skills used in inquiry/problem solving to make informed decisions.
- technology assists in researching, analyzing and evaluating information obtained from a variety of sources to answer an essential question across all content areas.
- technology is used to analyze real world data through inquiry/problem solving in order to produce results.
- technology problem solving strategies is applied to innovative design for authentic, creative and real-world applications.

Skills and Concepts - Research

- demonstrate an understanding of the strengths and limitations of the Internet
- apply a research process model (e.g., Big6, Research Cycle) to conduct online research
- locate and collect information from a variety of electronic resources (e.g. search engines, CDROM, online periodical databases, Virtual library/online catalogs, interactive video conferencing) and correctly cite sources
- evaluate the accuracy and appropriateness of electronic information
- organize information that is collected using a variety of tools (e.g., spreadsheet, database, saved files)
- communicate results of research and learning with others using the most appropriate tools (e.g., desktop-published or word-processed report, multimedia presentation)
- manipulate data using charting tools and graphic organizers (e.g., concept mapping, flow charting and outlining software) to connect ideas and organize information

Skills and Concepts - Inquiry/Problem-solving

- use appropriate technology and strategies to solve content-specific problems in the real-world
- determine which technology is useful and select the appropriate tool(s) (e.g., calculators, data collection probes, videos, educational software) to inquire/problem-solve in self-directed and extended learning
- apply strategies for identifying and solving minor hardware and software problems
- use technology to solve problems using critical thinking and problem-solving strategies
- explore how inquiry/problem-solving impact science, technology, engineering and mathematics (STEM) (e.g., design, programming, robotics)

Skills and Concepts - Innovation

- use technology to express creativity in all content areas
- design, develop, publish and present original, innovative products (e.g., Web pages, video, robotics, online content)
- collaborate with peers, experts and others to develop solutions and innovative products (e.g., design/CAD, troubleshooting, helpdesk, models, systems)
- describe how technological innovation often results when ideas, knowledge or skills are shared within a technology