

# Texas Essential Knowledge and Skills for Independent Study in Technology Applications

Foundations		Information Acquisition	
<p><b>Demonstrates knowledge and appropriate use of hardware components, software programs, and their connections.</b></p> <p><b>1A</b> Demonstrate knowledge and appropriate use of operating systems, software applications, and communication and networking components</p> <p><b>1B</b> Make decisions regarding the selection, acquisition, and use of software taking under consideration its quality, appropriateness, effectiveness, and efficiency</p> <p><b>1C</b> Delineate and make necessary adjustments regarding compatibility issues including, but not limited to, digital file formats and cross platform connectivity</p> <p><b>1D</b> Use appropriate technology terminology in the independent study course</p>	<p><b>Uses data input skills appropriate to the task.</b></p> <p><b>2A</b> Demonstrate proficiency in the use of a variety of electronic input devices including the mouse, keyboard, scanner, voice/sound recorder, disk/disc, video, and digital camera as appropriate</p> <p><b>2B</b> Use digital keyboarding standards for data input such as one space after punctuation, the use of em/en dashes, and smart quotation marks</p> <p><b>Complies with laws and examines issues regarding use of technology in society.</b></p> <p><b>3A</b> Discuss copyright laws/issues and model ethical acquisition and use of digital information, citing sources using established methods</p> <p><b>3B</b> Demonstrate proper etiquette and knowledge of acceptable use policies when using networks, especially resources on the Internet and intranet</p> <p><b>3C</b> Model respect of intellectual property when manipulating, morphing, or editing graphics, video, text, and sound</p>	<p><b>Uses a variety of strategies to acquire information from electronic resources, with appropriate supervision.</b></p> <p><b>4A</b> Use local area networks (LANs) and widearea networks (WANs), including the Internet and intranet, in research and resource sharing</p> <p><b>4B</b> Apply appropriate search strategies in the acquisition of information from the Internet including keyword and Boolean search strategies</p> <p><b>4C</b> Pose hypotheses/questions related to a selected problem</p>	<p><b>Acquires electronic information in variety of formats, with appropriate supervision.</b></p> <p><b>5A</b> Acquire information using appropriate research strategies and a variety of electronic formats, including text, audio, video, and graphics, citing the source</p> <p><b>5B</b> Identify, create, and use available file formats including text, image, video (analog and digital), and audio files</p> <p><b>Evaluates acquired electronic information.</b></p> <p><b>6A</b> Identify and employ a method to evaluate the design, functionality, and accuracy of the accessed information</p> <p><b>6B</b> Analyze information for validity and relevance in the confirmation, testing, and solution of the hypotheses and questions</p>



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Solving Problems		Communication	
<p><b>Uses appropriate computer-based productivity tools to create and modify solutions to problems.</b></p> <p><b>7A</b> Develop and apply advanced technology applications skills</p> <p><b>7B</b> Identify and solve problems, individually and with input from peers and professionals, utilizing research methods and advanced technology applications skills used in a selected profession or discipline</p> <p><b>7C</b> Select and integrate appropriate productivity tools including, but not limited to, word processor, database, spreadsheet, telecommunication, draw, paint, and utility programs into the creation of products</p> <p><b>7D</b> Use foundation and enrichment curricular content in the creation of products</p> <p><b>7E</b> Synthesize and generate new information from data gathered from electronic and telecommunications resources</p> <p><b>7F</b> Read and use technical documentation</p>	<p><b>Uses research skills and electronic communication, with appropriate supervision, to create new knowledge.</b></p> <p><b>8A</b> Work with a mentor to determine problem to be solved, hypotheses, and strategies to accomplish task</p> <p><b>8B</b> Develop products that meet standards identified by the selected profession or discipline</p> <p><b>8C</b> Produce original work to solve the identified problem and publish the product in electronic media and print</p> <p><b>8D</b> Participate with electronic communities as a learner, initiator, contributor, and teacher/mentor</p> <p><b>8E</b> Participate in relevant, meaningful activities in the larger community and society to create electronic projects</p> <p><b>Uses technology applications to facilitate evaluation of work, both process and product.</b></p> <p><b>9A</b> Design and implement procedures to track trends, set timelines, and review/evaluate progress for continual improvement in process and product</p> <p><b>9B</b> Produce documentation to illustrate the progress of the project including, but not limited to journals, logs, videos, pictorial documentation, multimedia products, and printed books</p> <p><b>9C</b> Seek and respond to input from peers and professionals in delineating technological tasks and problem solving</p>	<p><b>Formats digital information for appropriate and effective communication.</b></p> <p><b>10A</b> Format the developed projects according to defined output specifications including target audience and viewing environment</p> <p><b>10B</b> Present findings to a panel for comment and professional response</p> <p><b>Delivers the product electronically in a variety of media, with appropriate supervision.</b></p> <p><b>11A</b> Determine and implement the best method of presenting or publishing findings</p> <p><b>11B</b> Synthesize and publish information in a variety of ways including, but not limited to, printed copy, monitor display, Internet documents, and video</p> <p><b>11C</b> Use LANs, WANs, and remote resources to exchange and publish information</p>	<p><b>Uses technology applications to facilitate evaluation of communication, both process and product.</b></p> <p><b>12A</b> Design and implement procedures to track trends, set timelines, and review and evaluate the product using technology tools such as database managers, daily/monthly planners, and project management tools</p> <p><b>12B</b> Determine and employ technology specifications to evaluate projects for design, content delivery, purpose, and audience, demonstrating that process and product can be evaluated using established criteria or rubrics</p> <p><b>12C</b> Seek and respond to input from peers and professionals in evaluating the product</p> <p><b>12D</b> Make necessary revisions and/or proceed to the next stage of study</p>

