

Chapter 126. Texas Essential Knowledge and Skills for Technology Applications

Subchapter B. Middle School

Statutory Authority: The provisions of this Subchapter B issued under the Texas Education Code (TEC) and §28.002, unless otherwise noted.

§126.17. Technology Applications, Grade 6, Adopted 2022.

- (a) Implementation. The provisions of this section shall be implemented by school districts beginning with the 2024-2025 school year.
- (1) No later than August 1, 2024, the commissioner of education shall determine whether instructional materials funding has been made available to Texas public schools for materials that cover the essential knowledge and skills identified in this section.
 - (2) If the commissioner makes the determination that instructional materials funding has been made available this section shall be implemented beginning with the ~~2024~~ 2025 school year and apply to the 2024-2025 and subsequent school years.
 - (3) If the commissioner does not make the determination that instructional materials funding has been made available under this subsection, the commissioner shall determine no later than August 1 of each subsequent school year whether instructional materials funding has been made available. If the commissioner determines that instructional materials funding has been made available, the commissioner shall notify the State Board of Education and school districts that this section shall be implemented for the following school year.
- (b) Introduction.
- (1) Technology includes data communication, data processing, and the devices used for these tasks locally and across networks. Learning to apply these technologies motivates students to develop critical-thinking skills, higher-order thinking, and innovative problem solving. Technology applications incorporates the study of digital tools, devices, communication, and programming to empower students to apply current and emerging technologies in their careers, their education, and beyond.
 - (2) The technology applications Texas Essential Knowledge and Skills (TEKS) consist of five strands that prepare students to be literate in technology applications by Grade 8: computational thinking; creativity and innovation; data literacy, management, and representation; digital citizenship; and practical technology concepts. Communication and collaboration skills are embedded across the strands.
 - (A) Computational thinking. Students break down the problem-solving process into four steps: decomposition, pattern recognition, abstraction, and algorithms.
 - (B) Creativity and innovation. Students use innovative design processes to develop solutions to problems. Students plan a solution, create the solution, test the solution, iterate, and debug the solution as needed, and implement a completely new and innovative product.
 - (C) Data literacy, management, and representation. Students collect, organize, manage, analyze, and publish various types of data for an audience.
 - (D) Digital citizenship. Students practice the ethical and effective application of technology and develop an understanding of cybersecurity and the impact of a digital footprint to

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- (G) identify types of local and remote data storage such as cloud architecture or local server;
and

- (6) Data literacy, management, and representation. Organize, manage, and analyze data. The student uses digital tools to transform data, make inferences, and predictions. The student is expected to use digital tools in order to transform data to analyze trends and make inferences and predictions.
- (7) Data literacy, management, and representation. Communicate and publish results. The student creates digital products to communicate data to an audience for an intended purpose. The student is expected to use digital tools to communicate and display data from a product or process to inform or persuade an intended audience.
- (8) Digital citizenship-social interactions. The student understands different styles of digital communication and that a student's actions online can have a long impact. The student is expected to:
 - (A) classify actions as having a positive or negative effect on a digital footprint;
 - (B) create content that is respectful and responsible.

