Texas Technology Applications

Grade 1

Implementation. The provisions of this section shall be implemented by school districts beginning with the 2024-2025 school year. 1.A

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.** 1.A.1

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.** 1.A.2

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.** 1.A.3

Introduction. 1.B

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.** 1.B.1

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.** 1.B.2

A Computational thinking. Students break down the problem-solving process into four steps: decomposition, pattern recognition, abstraction, and algorithms. 1.B.2.A

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. 1.B.2.B

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C Data literacy, management, and representation. Students collect, organize, manage, analyze, and publish various types of data for an audience. 1.B.2.C

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 become safe, productive, and respectful digital citizens. 1.B.2.D

E Practical technology concepts. Students build their knowledge of software applications and hardware focusing on keyboarding and use of applications and tools. 1.B.2.E

3 **The technology applications TEKS can be integrated into all content areas and can support stand-alone courses. Districts have the flexibility of offering technology applications in a variety of settings, including through a stand-alone course or by integrating the technology applications standards in the essential knowledge and skills for one or more courses or subject areas.** 1.B.3

4 **Statements containing the word "including" reference content that must be mastered, while those containing the phrase "such as" are intended as possible illustrative examples.** 1.B.4

Knowledge and skills. 1.C

1 **Computational thinking--foundations. The student explores the core concepts of computational thinking, a set of problem-solving processes that involve decomposition, pattern recognition, abstraction, and algorithms. The student is expected to:** 1.C.1

A identify and discuss a problem or task and break down (decompose) the solution into sequential steps; 1.C.1.A

B identify the simple patterns found in the solutions to everyday problems or tasks; and 1.C.1.B

C create a simple algorithm (step-by-step instructions) for an everyday task. 1.C.1.C

2 **Computational thinking--applications. The student, with guidance from an educator, applies the fundamentals of computer science. The student is expected to create a sequence of code that solves a simple problem with or without technology.** 1.C.2

3 **Creativity and innovation--innovative design process. The student takes an active role in learning by using a design process to solve authentic problems for a local or global audience, using a variety of technologies. The student is expected to:** 1.C.3

A practice personal skills and behaviors, including following directions and mental agility, needed to implement a design process successfully; and 1.C.3.A

B use a design process with components such as asking questions, brainstorming, or storyboarding to identify and solve authentic problems with adult assistance. 1.C.3.B

4 **Creativity and innovation--emerging technologies. The student understands that technology is dynamic and impacts different communities. The student is**

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expected to identify examples of how technology has impacted different communities. 1.C.4

5 **Data literacy, management, and representation--collect data. The student defines data and explains how data can be found and collected. The student is expected to:** 1.C.5

- A explore and collect many types of data such as preferences or daily routines of people, events, or objects; and 1.C.5.A
- B conduct a basic search using provided keywords and digital sources with adult assistance. 1.C.5.B

6 **Digital citizenship--social interactions. The student identifies appropriate ways to communicate in various digital environments. The student is expected to describe and demonstrate respectful behavior within a digital environment.** 1.C.6

7 **Digital citizenship--ethics and laws. The student recognizes and practices responsible, legal, and ethical behavior while using digital tools and resources. The student is expected to:** 1.C.7

- A explain and demonstrate the importance of acceptable use of digital resources and devices as outlined in local policies or acceptable use policy (AUP); and 1.C.7.A
- B communicate an understanding that all digital content has owners and explain the importance of respecting others' belongings as they apply to digital content and information. 1.C.7.B

8 **Digital citizenship--privacy, safety, and security. The student practices safe, legal, and ethical digital behaviors to become a socially responsible digital citizen. The student is expected to:** 1.C.8

- A identify ways to keep a user account safe, including not sharing login information and logging off accounts and devices; 1.C.8.A
- B identify and discuss what information is safe to share online such as hobbies and likes and dislikes and what information is unsafe such as identifying information; and 1.C.8.B
- C discuss and define cyberbullying with teacher support and guidance. 1.C.8.C

9 **Practical technology concepts--skills and tools. The student demonstrates knowledge and appropriate use of technology systems, concepts, and operations. The student is expected to:** 1.C.9

- A select and use a variety of applications, devices, and online learning environments to create an original product; 1.C.9.A
- B describe basic computer hardware, including a variety of input and output devices, and software using accurate terminology; 1.C.9.B
- C perform software application functions such as file management, collaboration, and the creation and revision of digital artifacts using a variety of developmentally appropriate digital tools and resources; 1.C.9.C

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D practice ergonomically correct keyboarding techniques and developmentally appropriate hand and body positions; and 1.C.9.D

E identify, locate, and practice using keys on the keyboard, including upper- and lower-case letters, numbers, and special keys such as space bar, shift, and backspace. 1.C.9.E