Texas Technology Applications

Kindergarten

Implementation. The provisions of this section shall be implemented by school districts beginning with the 2024-2025 school year. K.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.** K.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.** K.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.** K.A.3

Introduction. K.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.** K.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.** K.B.2

A Computational thinking. Students break down the problem-solving process into four steps: decomposition, pattern recognition, abstraction, and algorithms. K.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. K.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. K.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. K.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. K.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.** K.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.** K.B.4

Knowledge and skills. K.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:** K.C.1

A identify a problem or task such as making a sandwich and break it down (decompose) into smaller pieces; K.C.1.A

B identify simple patterns and make predictions based on the patterns; and K.C.1.B

C identify algorithms (step-by-step instructions) using a sequential process such as first, next, then, and last. K.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 with or without technology such as solving a maze using drag-and-drop programming or creating step-by-step directions for student movement to a specific location.** K.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:** K.C.3

A practice personal skills, including following directions, needed to successfully implement design processes; and K.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. K.C.3.B

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)ata literacy, management, and representation--collect data. The student defines lata and explains how data can be found and collected. The student is expected

to: K.C.4

A communicate an understanding that data is information collected about people, events, or objects such as computer searches and weather patterns; and K.C.4.A

B communicate with adult assistance the idea that digital devices can search for and retrieve information. K.C.4.B

5 Digital citizenship--social interactions. The student identifies appropriate ways to communicate in various digital environments. The student is expected to identify and demonstrate responsible behavior within a digital environment. K.C.5

6 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: K.C.6

A demonstrate acceptable use of digital resources and devices as outlined in local policies or acceptable use policy (AUP); and K.C.6.A

B communicate an understanding that all digital content has owners. K.C.6.B

7 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: K.C.7

A identify ways to keep a user account safe, including not sharing login information and logging off accounts and devices; and K.C.7.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. K.C.7.B

8 Practical technology concepts--skills and tools. The student demonstrates knowledge and appropriate use of technology systems, concepts, and operations. The student is expected to: K.C.8

A use a variety of applications, devices, and online learning environments to engage with content; K.C.8.A

B identify basic computer hardware, including a variety of input and output devices, and software using accurate terminology; K.C.8.B

C perform software application functions such as opening an application and modifying, printing, and saving digital artifacts using a variety of developmentally appropriate digital tools and resources; K.C.8.C

D practice ergonomically correct keyboarding techniques and developmentally appropriate hand and body positions; and K.C.8.D

E identify, locate, and practice using keys on the keyboard, including letters, numbers, and special keys such as space bar and backspace. K.C.8.E