# CompuScholar, Inc.

## Correlations to the Texas Essential Knowledge and Skills (TEKS):
## Technology Applications - 6th Grade

**Texas Course Details:**

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| **Chapter** | Chapter 126. Texas Essential Knowledge and Skills for Technology Applications |
| **Subchapter** | Subchapter B. Middle School |
| **Course** | §126.17. Technology Applications, Grade 6 (Adopted 2022) |
| **Standards Link** | Subchapter B (Middle School) |
| **TEKS Coverage** | 100% |

**CompuScholar Course Details:**

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| **Course Title:** | Tech Essentials |
| **Course ISBN:** | 978-1-946113-03-0 |
| **Course Year:** | 2023 |

## Course Standards

**Note 1**: Citation(s) listed may represent a subset of the instances where objectives are met throughout the course.

**Note 2**: Citation(s) for a "Lesson" refer to the "Lesson Text" elements and associated "Activities" within the course unless otherwise noted. The "Instructional Video" components are supplements designed to introduce or re-enforce the main lesson concepts, and the Lesson Text contains full details.

| **Knowledge and Skills Statement**: (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: | |
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| **Student Expectation** | **CITATION(S)** |
| (A) decompose real-world problems into structured parts by using visual representation; | Chapter 10, Lesson 2 |
| (B) analyze the patterns and sequences found in visual representations such as learning maps, concept maps, or other representations of data; | Chapter 10, Lesson 2 |
| (C) define abstraction and distinguish between generalized information and specific information in the context of solving a problem or completing a task; | Chapter 10, Lesson 1 |
| (D) design a plan collaboratively using visual representation to document a problem, possible solutions, and an expected timeline for the development of a coded solution; | Chapter 10, Lesson 2<br>Chapter 11, Lessons 1-2 |
| (E) analyze different techniques used in debugging and apply them to an algorithm; and | Chapter 10, Lesson 4 |
| (F) analyze the benefits of using iteration (code and sequence repetition) in algorithms. | Chapter 9, Lesson 3<br>Chapter 10, Lesson 2 |

| **Knowledge and Skills Statement**: (2) Computational thinking--applications. The student applies the fundamentals of computer science. The student is expected to: | |
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| **Student Expectation** | **CITATION(S)** |
| (A) define and label variables that relate to their programming or algorithm; and | Chapter 8, Lesson 4-5 |
| (B) use a design process to create block-based and text-based programs that include sequences, loops, conditionals, and events to solve an everyday problem. | Chapter 8, Lesson 2<br>Chapter 9, Lessons 1-3<br>Chapter 11, Lessons 1-2 |

| **Knowledge and Skills Statement**: (3) Creativity and innovation--innovative design process. The student takes an active role in learning by using a design process and creative thinking to develop and evaluate solutions, considering a variety of local and global perspectives. The student is expected to: | |
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| **Student Expectation** | **CITATION(S)** |
| (A) resolve challenges in design processes independently using goal setting and personal character traits such as demonstrating courage and confidence; | Chapter 11, Lesson 4 |
| (B) discuss and implement a design process using digital tools to compare, contrast, and evaluate student-generated outcomes; and | Chapter 11, Lessons 1, 3 |
| (C) identify how the design process is used in various industries. | Chapter 11, Lessons 1-2 |

| **Knowledge and Skills Statement**: (4) Creativity and innovation--emerging technologies. The student demonstrates a thorough understanding of the role of technology throughout history and its impact on societies. The student is expected to: | |
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| **Student Expectation** | **CITATION(S)** |
| (A) discuss how changes in technology throughout history have impacted various areas of study; | Chapter 12, Lesson 4 |
| (B) discuss how global trends impact the development of technology; and | Chapter 12, Lesson 4 |
| (C) transfer current knowledge to the learning of newly encountered technologies. | Chapter 12, Lesson 4 |

| **Knowledge and Skills Statement**: (5) Data literacy, management, and representation--collect data. The student uses advanced digital strategies to collect and represent data. The student is expected to: | |
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| **Student Expectation** | **CITATION(S)** |
| (A) demonstrate how data can be represented in Boolean expression; and | Chapter 5, Lesson 1<br>Chapter 9, Lesson 2 |
| (B) discuss and use advanced search strategies, including keywords, Boolean operators, and limiters. | Chapter 5, Lesson 1 |

| **Knowledge and Skills Statement**: (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: | |
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| **Student Expectation** | **CITATION(S)** |
| ... use digital tools to transform data in order to identify and discuss trends and make inferences. | Chapter 2, Lesson 4 |

| **Knowledge and Skills Statement**: (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: | |
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| **Student Expectation** | **CITATION(S)** |
| … use digital tools to communicate and display data from a product or process to inform an intended audience. | Chapter 6, Lesson 4<br>Chapter 7, Lesson 3-4 |

| **Knowledge and Skills Statement**: (8) Digital citizenship--social interactions. The student understands different styles of digital communication and that a student's actions online can have a long-term impact. The student is expected to: | |
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| **Student Expectation** | **CITATION(S)** |
| (A) identify the impact of a digital footprint; | Chapter 12, Lesson 1 |
| (B) create formal and informal digital communications using appropriate digital etiquette; and | Chapter 7, Lessons 2-3 |
| (C) collaborate on digital platforms such as recording a video conference presentation using appropriate formal and informal digital etiquette. | Chapter 7, Lessons 2-3 |

| **Knowledge and Skills Statement**: (9) 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: | |
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| **Student Expectation** | **CITATION(S)** |
| (A) adhere to local acceptable use policy (AUP) and practice safe, ethical, and positive online behaviors; | Chapter 12, Lesson 2<br>Chapter 13, Lessons 1-2 |
| (B) discuss and define intellectual property and associated terms, including copyright law, permission, fair use, creative commons, open source, and public domain; | Chapter 12, Lesson 3 |
| (C) create citations and cite sources for a variety of digital forms of intellectual property; and | Chapter 5, Lesson 3<br>Chapter 12, Lesson 3 |
| (D) describe how information can be exaggerated or misrepresented online. | Chapter 5, Lesson 3 |

| **Knowledge and Skills Statement**: (10) 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: | |
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| **Student Expectation** | **CITATION(S)** |
| (A) identify real-world cybersecurity problems such as phishing, malware, password attacks, identity theft, and hacking; and | Chapter 13, Lesson 1 |
| (B) identify various methods of cyberbullying such as harassment, impersonation, and cyberstalking. | Chapter 13, Lesson 3 |

| **Knowledge and Skills Statement**: (11) Practical technology concepts--processes. The student evaluates and selects appropriate methods or techniques for an independent project and identifies and solves common hardware and software problems using troubleshooting strategies. The student is expected to: | |
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| **Student Expectation** | **CITATION(S)** |
| … create and design files in various formats such as text, graphics, video, and audio files. | Chapter 4, Lessons 1-4 |

| **Knowledge and Skills Statement**: (12) Practical technology concepts--skills and tools. The student leverages technology systems, concepts, and operations to produce digital artifacts. The student is expected to: | |
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| **Student Expectation** | **CITATION(S)** |
| (A) apply appropriate technology terminology such as cloud applications, input, output, and basic programming; | Chapter 2, Lesson 3<br>Chapter 7, Lesson 2 |
| (B) identify effective file management strategies such as file naming conventions, local and remote locations, backup, hierarchy, folder structure, file conversion, tags, and emerging digital organizational strategies; | Chapter 1, Lessons 2-4 |
| (C) select and use the appropriate platform and tools to complete a specific task or project; | Chapter 2, Lessons 1,3<br>Chapter 3, Lessons 1,5<br>Chapter 7, Lesson 3 |
| (D) demonstrate improvement in speed and accuracy as measured by words per minute when applying correct keyboarding techniques; | Chapter 3, Lesson 6 |
| (E) select and use appropriate shortcuts within applications; | Chapter 2, Lesson 2<br>Chapter 3, Lesson 2 |
| (F) use help sources to research application features and solve software issues; | Chapter 5, Lesson 2<br>Chapter 12, Lesson 4 |
| (G) identify types of local and remote data storage such as cloud architecture or local server; and | Chapter 1, Lessons 2,4 |
| (H) use productivity tools found in spread sheet, word processing, and publication applications to create digital artifacts such as reports, graphs, and charts. | Chapter 2, Lessons 3, 5<br>Chapter 3, Lessons 4-5<br>Chapter 6, Lessons 4-6 |