Note: Alignment refers to content within the student expectation, not to three-dimensional instruction.

Matter and Energy

Challenge	2017 TEKS	2021 TEKS	Alignment
1: Portable Power	6(7)	6(11)(A): research and describe why resource management is important in reducing global energy, poverty, malnutrition, and air and water pollution, and 6(11)(B): explain how conservation, increased efficiency, and technology can help manage air, water, soil, and energy resources.	Aligned
2: Mystery Message	7(6) 6(5)(C) 8(5)(C)	7(6)(C): distinguish between physical and chemical changes in matter; 6(5)(E): identify the formation of a new substance by using the evidence of a possible chemical change, including production of a gas, change in thermal energy, production of a precipitate, and color change.	Aligned
3: Atomic Art	8(5)(A) 8(5)(B)	2017 8(5)(A) and 8(5)(B) were removed in 2021. These concepts are addressed in high school science courses. IPC (7)(A): model basic atomic structure and relate an element's atomic structure to its bonding, reactivity, and placement on the Periodic Table; Chem (6)(B): describe the structure of atoms and ions, including the masses, electrical	Not aligned in grades 6-8 <i>Atomic</i> <i>structure is</i> <i>addressed used</i>
		charges, and locations of protons and neutrons in the nucleus and electrons in the electron cloud;	in IPC and Chemistry

Note: Alignment refers to content within the student expectation, not to three-dimensional instruction.

Force, Motion, and Energy

Challenge	2017 TEKS	2021 TEKS	Alignment
4: Dangerous Delivery	6(8)(A) 6(8)(B)	 6(8)(A): compare and contrast gravitational, elastic, and chemical potential energies with kinetic energy; 7(8)(D): analyze the effect of balanced and unbalanced forces on the state of motion of an object using Newton's First Law of Motion. 	Aligned Changes to an object due to unbalanced forces are now introduced in Grade 5
5: Building Better Bones	7(12)(A)	2017 7(12)(A) was removed in 2021. 3(13)(A): explore and explain how external structures and functions of animals such as the neck of a giraffe or webbed feet on a duck enable them to survive in their environment; and 5(13)(A): analyze the structures and functions of different species to identify how organisms survive in the same environment; and	Not aligned in grades 6-8 Structure and function of animals are addressed in Grades 3 and 5
6: Slingshot Safety	8(6)(C) 6(8)(B)	 8(7)(B): investigate and describe how Newton's three laws of motion act simultaneously within systems such as in vehicle restraints, sports activities, amusement park rides, Earth's tectonic activities, and rocket launches. 2017 6(8)(B) was removed in 2021. 	Aligned

Note: Alignment refers to content within the student expectation, not to three-dimensional instruction.

Earth and Space

Challenge	2017 TEKS	2021 TEKS	Alignment
7:Shielding Satellites	6(10)(C) 6(9)(A) 6(9)(B)	 2017 6(10)(C) was removed in 2021. 7(8)(A): investigate methods of thermal energy transfer, including conduction, convection, and radiation; 7(8)(B): investigate how thermal energy moves in a predictable pattern from warmer to cooler until all substances within the system reach thermal equilibrium; and 	Aligned
8: Fighting Floods	7(8)(A) 7(8)(B)	2017 7(8)(A) and 7(8)(B) were removed in 2021. 3(10)(C): model and describe rapid changes in Earth's surface such as volcanic eruptions, earthquakes, and landslides. 4(10)(B): model and describe slow changes to Earth's surface caused by weathering, erosion, and deposition from water, wind, and ice; and	Not aligned in grades 6-8 <i>Weathering,</i> <i>erosion, and</i> <i>deposition</i> <i>are</i> <i>addressed in</i> <i>elementary</i> <i>science</i>
9: Withstanding Wind	8(10)(C) 7(8)(A)	 8(10)(C): describe the interactions between ocean currents and air masses that produce tropical cyclones, including typhoons and hurricanes. 2017 7(8)(A) was removed in 2021. <i>This challenge could also be used during a force a motion unit.</i> 6(7)(A): identify and explain how forces act on objects, including gravity, friction, magnetism, applied forces, and normal forces, using real-world applications; 7(7)(D): analyze the effect of balanced and unbalanced forces on the state of motion of an object using Newton's First Law of Motion. 8(7)(B): investigate and describe how Newton's three laws of motion act simultaneously within systems such as in vehicle restraints, sports activities, amusement park rides, Earth's tectonic activities, and rocket launches. 	Aligned

Note: Alignment refers to content within the student expectation, not to three-dimensional instruction.

Organisms and Environments

Challenge	2017 TEKS	2021 TEKS	Alignment
10: Classifying Kingdoms	6(12)(D)	7(14)(B): describe the characteristics of the recognized kingdoms and their importance in ecosystems such as bacteria aiding digestion or fungi decomposing organic matter.	Aligned
11: Helpful Habitats	7(10)(A) 7(10)(B) 7(11)(B)	 2017 7(10)(B) was removed in 2021. 8(12)(C): describe how biodiversity contributes to the stability and sustainability of an ecosystem and the health of the organisms within the ecosystem. 8(13)(C): describe how variations of traits within a population lead to structural, behavioral, and physiological adaptations that influence the likelihood of survival and reproductive success of a species over generations. 	Aligned
12: River Rubbish Removal	8(11)(C) 7(8)(C)	 7(11)(B): describe human dependence and influence on ocean systems and explain how human activities impact these systems. 7(11)(A): analyze the beneficial and harmful influences of human activity on groundwater and surface water in a watershed; and 	Aligned