STEMulating Design Challenges for Grades 3-5
Product Crosswalk for 2021 TEKS
Note: *Alignment refers to content within the student expectation, not to three-dimensional instruction.*

Grade 3

Challenge	2017 TEKS	2021 TEKS	Alignment
1: Keeping It Cold!	3(5)(B) 3(5)(C)	**3(6)(B):** describe and classify samples of matter as solids, liquids, and gases and demonstrate that solids have a definite shape and that liquids and gases take the shape of their container; **3(6)(C):** predict, observe, and record changes in the state of matter caused by heating or cooling in a variety of substances such as ice becoming liquid water, condensation forming on the outside of a glass, or liquid water being heated to the point of becoming water vapor (gas); and	Aligned
2: The Amazing City Ride	3(6)(A) 3(6)(B)	**3(8)(A):** identify everyday examples of energy, including light, sound, thermal, and mechanical; and **3(7)(B):** plan and conduct a descriptive investigation to demonstrate and explain how position and motion can be changed by pushing and pulling objects such as swings, balls, and wagons.	Aligned
3: Create, Don't Waste	3(7)(C)	**3(11)(A):** explore and explain how humans use natural resources such as in construction, in agriculture, in transportation, and to make products;	Aligned
4: Honeybees Are Our Friends!	3(9)(B)	**3(12)(B):** identify and describe the flow of energy in a food chain and predict how changes in a food chain such as removal of frogs from a pond or bees from a field affect the ecosystem;	Aligned

Grade 4

Challenge	2017 TEKS	2021 TEKS	Alignment
1: Saved by the Jacket	4(5)(A)	**4(6)(A):** classify and describe matter using observable physical properties, including temperature, mass, magnetism, relative density (the ability to sink or float in water), and physical state (solid, liquid, gas);	Aligned
2: Paradise Playground	4(6)(A) 4(6)(D)	2017 4(6)(A) was removed in 2021. **4(7):** The student knows the nature of forces and the patterns of their interactions. The student is expected to plan and conduct descriptive investigations to explore the patterns of forces such as gravity, friction, or magnetism in contact or at a distance on an object.	Aligned Students learn about mechanical energy in third grade (TEKS 3(8)(A)).
3: Fresh Water for Everyone	4(7)(C) 4(8)(B)	**4(11)(A):** identify and explain advantages and disadvantages of using Earth's renewable and nonrenewable natural resources such as wind, water, sunlight, plants, animals, coal, oil, and natural gas; and **4(10)(A):** describe and illustrate the continuous movement of water above and on the surface of Earth through the water cycle and explain the role of the Sun as a major source of energy in this process;	Aligned
4: Protect the Species, Save the Planet	4(9)(A) 4(9)(B)	**4(12)(A):** investigate and explain how most producers can make their own food using sunlight, water, and carbon dioxide through the cycling of matter; 2017 4(9)(B) was removed in 2021.	Partially aligned Predicting how change can affect ecosystems has been removed.

Grade 5

Challenge	2017 TEKS	2021 TEKS	Alignment
1: Don't Let the Cookie Crumble!	5(5)(A)	**5(6)(A):** compare and contrast matter based on measurable, testable, or observable physical properties, including mass, magnetism, relative density (sinking and floating using water as a reference point), physical state (solid, liquid, gas), volume, solubility in water, and the ability to conduct or insulate thermal energy and electric energy;	Aligned
2: Alarming Buzz!	5(6)(B) 5(5)(A)	**5(8)(B):** demonstrate that electrical energy in complete circuits can be transformed into motion, light, sound, or thermal energy and identify the requirements for a functioning electrical circuit; and **5(6)(A):** compare and contrast matter based on measurable, testable, or observable physical properties, including mass, magnetism, relative density (sinking and floating using water as a reference point), physical state (solid, liquid, gas), volume, solubility in water, and the ability to conduct or insulate thermal energy and electric energy;	Aligned
3: The Disappearing Beach	5(7)(B)	**5(10)(C):** model and identify how changes to Earth's surface by wind, water, or ice result in the formation of landforms, including deltas, canyons, and sand dunes.	Aligned
4: Keep Them Safe	5(9)(A) 5(9)(C)	**5(12)(A):** observe and describe how a variety of organisms survive by interacting with biotic and abiotic factors in a healthy ecosystem; **5(12)(B):** predict how changes in the ecosystem affect the cycling of matter and flow of energy in a food web; and	Aligned