Strand 1 - Matter and Energy	
TEKS Knowledge and Skills Statement/ STAAR-Tested Student Expectations	STAAR Alternate 2 Essence Statement
(5.6) Matter and energy. The student knows that matter has measurable physical properties that determine how matter is identi ed, classi ed, changed, and used. The student is expected to:	

5.6	Prerequisite Skills Linked to Assessed Curriculum
	• 4.6.A: Classify and describe matter using observable physical properties, including temperature, mass, magnetism, relative density (the ability to sink or oat in water), and physical state (solid, liquid, gas). • 4.6.B: Investigate and compare a variety of mixtures, including solutions that are composed of liquids in liquids and solids in liquids. • 4.6.C: Demonstrate that matter is conserved when mixtures such as soil and water or oil and water are formed. • 3.6.A: Measure, test, and record physical properties of matter, including temperature, mass, magnetism, and the ability to sink or oat in water. • 3.6.B: Describe and classify samples of matter as solids, liquids, and gases and demonstrate that solids have a de nite 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). • 3.6.D: Demonstrate that materials can be combined based on their physical properties to create or modify objects such as building a tower or adding clay to sand to make a stronger brick and justify the selection of materials based on their physical properties. • 2.6.A: Classify matter by observable physical properties, including texture, exibility, and relative temperature, and identify whether a material is a solid or liquid. • 2.6.B: Conduct a descriptive investigation to explain how physical properties can be changed through processes such as cutting, folding, sanding, melting, or freezing. • 2.6.C: Demonstrate that small units such as building blocks can be combined or reassembled to form new objects for different purposes and explain the materials chosen based on their physical properties. • 1.6.A: Classify objects by observable physical properties, including, shape, color, and texture, and attributes such as larger and smaller and heavier and lighter. • 1.6.B: Explain and predict changes in materials caused by heating and cooling. • 1.6.C: Demonstrate and explain that a whole object is a system made of organized parts such as a toy that can be taken apart and put back together. • K.6: Identify and record observable physical properties of objects, including shape, color, texture, and material, and generate ways to classify objects. • PK4.VI.A.1: Observe, investigate, describe, and discuss characteristics of common objects. • PK4.VI.A.3: Use simple scienti c tools to learn about objects.

5.7	Prerequisite Skills Linked to Assessed Curriculum
	• 4.7: 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. • 3.7.A: Demonstrate and describe forces acting on an object in contact or at a distance, including magnetism, gravity, and pushes and pulls. • 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. • 2.7.A: Explain how objects push on each other and may change shape when they touch or collide. • 2.7.B: Plan and conduct a descriptive investigation to demonstrate how the strength of a push and pull changes an object's motion. • 1.7.A: Explain how pushes and pulls can start, stop, or change the speed or direction of an object's motion. • 1.7.B: Plan and conduct a descriptive investigation that predicts how pushes and pulls can start, stop, or change the speed or direction of an object's motion. •

Strand 3 - Earth and Space	
TEKS Knowledge and Skills Statement/ STAAR-Tested Student Expectations	STAAR Alternate 2 Essence Statement
(5.9) Earth and space. The student recognizes patterns among the Sun, Earth, and Moon system and their effects. The student is expected to: (A) demonstrate that Earth rotates on its axis once approximately every 24 hours and explain how that causes the day/night cycle and the appearance of the Sun moving across the sky, resulting in changes in shadow positions and shapes. (4.9) Earth and space. The student recognizes patterns among the Sun, Earth, and Moon system and their effects. The student is expected to: (A) collect and analyze data to identify sequences and predict patterns of change in seasons such as changes in temperature and length of daylight; (B) collect and analyze data to identify sequences and predict patterns of change in the observable appearance of the Moon from Earth. (3.9) Earth and space. The student knows there are recognizable objects and patterns in Earth's solar system. The student is expected to: (B) identify the order of the planets in Earth's solar system in relation to the Sun.	Recognizes the patterns of movement of the Sun, Earth, and Moon and understands the effects of this movement.

5.9	Prerequisite Skills Linked to Assessed Curriculum
	• 4.9.A: Collect and analyze data to identify sequences and predict patterns of change in seasons such as change in temperature and length of daylight. • 4.9.B: Collect and analyze data to identify sequences and predict patterns of change in the observable appearance of the Moon from Earth. • 3.9.A: Construct models and explain the orbits of the Sun, Earth, and Moon in relation to each other. • 3.9.B: Identify the order of the planets in Earth's solar system in relation to the Sun. • 2.9.A: Describe the Sun as a star that provides light and heat and explain that the Moon re ects the Sun's light.

Continued

Strand 3 - Earth and Space	
TEKS Knowledge and Skills Statement/ STAAR-Tested Student Expectations	STAAR Alternate 2 Essence Statement
(5.10) Earth and space. The student knows that there are recognizable patterns and processes on Earth. The student is expected to: (A) explain how the Sun and the ocean interact in the water cycle and affect weather; (B) model and describe the processes that led to the formation of sedimentary rocks and fossil fuels; (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. (4.10) Earth and space. The student knows that there are processes on Earth that create patterns of change. The student is expected to: (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; (B) model and describe slow changes to Earth's surface caused by weathering, erosion, and deposition from water, wind, and ice; (C) differentiate between weather and climate. (3.10) Earth and space. The student knows that there are recognizable processes that change Earth over time. The student is expected to: (C) model and describe rapid changes in Earth's surface such as volcanic eruptions, earthquakes, and landslides.	Knows that there are patterns and processes on Earth that change the Earth's surface over time.

Strand 4 - Organisms and Environments	
TEKS Knowledge and Skills Statement/ STAAR-Tested Student Expectations	STAAR Alternate 2 Essence Statement
(5.12) Organisms and environments. The student describes patterns, cycles, systems, and relationships within environments. The student is expected to: (A) observe and describe how a variety of organisms survive by interacting with biotic and abiotic factors in a healthy ecosystem. (4.12) Organisms and environments. The student describes patterns, cycles, systems, and relationships within environments. The student is expected to: (B) describe the cycling of matter and ow of energy through food webs, including the roles of the Sun, producers, consumers, and decomposers. (3.12) Organisms and environments. The student describes patterns, cycles, systems, and relationships within environments. The student is expected to: (B) identify and describe the ow 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; (D) identify fossils as evidence of past living organisms and environments, including common Texas fossils.	Describes/Identi es how living systems interact with their environment to create a healthy ecosystem.

Strand 4 - Organisms and Environments	
TEKS Knowledge and Skills Statement/ STAAR-Tested Student Expectations	STAAR Alternate 2 Essence Statement
(5.13) Organisms and environments. The student knows that organisms undergo similar life processes and have structures and behaviors that help them survive within their environments. The student is expected to: (A) analyze the structures and functions of different species to identify how organisms survive in the same environment.	Knows that organisms have structures and functions that help them survive within their environments.

5.13	Prerequisite Skills Linked to Assessed Curriculum
	• 4.13.A: Explore and explain how structures and functions of plants such as waxy leaves and deep roots enable them to survive in their environment. • 4.13.B: Differentiate between inherited and acquired physical traits of organisms. • 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. • 3.13.B: Explore, illustrate, and compare life cycles in organisms such as beetles, crickets, radishes, or lima beans. • 2.13.A: Identify the roots, stems, leaves, owers, fruits, and seeds of plants and compare how those structures help different plants meet their basic needs for survival. • 2.13.B: Record and compare how the structures and behaviors of animals help them . .8Q EMC w -1.41613 >> 17 >>Bod,0 (lems surturesr)-15 airtures5