1st Nine Weeks

Matter and energy. The student knows that matter has measurable physical properties that determine how matter is identified, classified, changed, and used. The student is expected to:

4.6A 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)

4.6B investigate and compare a variety of mixtures, including solutions that are composed of liquids in liquids and solids in liquids

Changes to the TEKS In Matter and Energy:

- This is a priority TEKS.
- The students classify and describe now instead of measuring, comparing, and contrasting the properties of matter.
- Students are no longer learning about volume.
- 6B gives more guidance about the types of mixtures the students are comparing.
- The NEW TEKS, 4.6C, has students demonstrating that matter is conserved when mixtures such as soil and water or oil and water are formed.

Additional TEKS to be taught:

4.6C demonstrate that matter is conserved when mixtures such as soil and water or oil and water are formed. (NEW)

Classify and Compare Changes in Physical Properties of Matter

Yearly Target	Nine Weeks Target	TEKS	Priority Topic: Classify and Compare Changes in Physical Properties of Matter
Extension			• Use inferences and applications that go beyond the standard.
3.0	1st	Content: 4.6AB SEPs: 4.1CDE 4.3AB RTC: 4.5E	I can: • Compare and contrast a variety of mixtures, including solutions. • Classify objects by their physical properties of matter, including mass, magnetism, relative density (to water), and physical states. • Communicate thinking using diagrams/illustrations, labels, and sentences.
2.5			• In addition to 2.0 content, partial knowledge of 3.0 is evident.
2.0		Content: 4.6AB SEPs: 4.1CDE 4.3AB RTC: 4.5E	I can: • Investigate the characteristics of a mixture called a solution and give two examples (liquid to liquid, liquid to solid). • Measure and describe matter using its physical properties, including mass, magnetism, relative density (to water), and physical states. • Communicate observations and data using diagrams/illustrations and labels.
1.5			• In addition to 1.0 content, partial knowledge of 2.0 is evident.
1.0		Content: 4.6AB SEPs: 4.1CDE 4.3AB RTC: 4.5E	I can: • Investigate the characteristics of a mixture and give two examples. • Identify physical properties of matter, including mass, magnetism, relative density (to water), and physical states. • Communicate observations.
0.5			• With help, a partial understanding of the 1.0 content is evident • With help, communicate observations.

2nd Nine Weeks

Force, motion, and energy. The student knows the nature of forces and the patterns of their interactions. The student is expected to:

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.

Force, motion, and energy. The student knows that energy is everywhere and can be observed in cycles, patterns, and systems. The student is expected to:

4.8C demonstrate and describe how electrical energy travels in a closed path that can produce light and thermal energy

Changes to the TEKS In Force, Motion, and Energy:

- This is a priority TEKS. The TEKS and the progression have changed.
- Students will apply what they have learned by planning and conducting an investigation. The students will need guidance and support as they plan and conduct a descriptive investigation. A descriptive investigation does not have a hypothesis and focuses on making observations and measuring. An example of this type of investigation might be: Does the height of an object affect the distance an object moves?
- With circuits, students demonstrate and describe a closed path that produces light and thermal energy.
- Students no longer differentiate between light, sound, mechanical, and thermal energy. They are investigating and identifying the transfer of energy in motion, waves in water, and sound.

Additional TEKS to be taught:

4.8A investigate and identify the transfer of energy by objects in motion, waves in water, and sound (NEW)
4.8B identify conductors and insulators of thermal and electrical energy

Describe How Electrical Energy Travels and Conduct an Investigation

Yearly Target	Nine Weeks Target	TEKS	Priority Topic: Describe How Electrical Energy Travels and Plan an Investigation
Extension			• Use inferences and applications that go beyond the standard.
3.0	2nd	Content: 4.7,4.8C SEPs: 4.1CDEFG 4.3AB RTC: 4.5BG	I can: • Conduct a descriptive investigation to explore the patterns of forces such as gravity, friction, or magnetism in contact or at a distance on an object. • Describe how electricity travels in a closed path that can produce light and thermal energy. • Communicate thinking using diagrams/illustrations, labels, and sentences.
2.5			• In addition to 2.0 content, partial knowledge of 3.0 is evident.
2.0		Content: 4.7,4.8C SEPs: 4.1CDEFG 4.3AB RTC: 4.5BG	I can: • Plan a descriptive investigation to explore the patterns of forces such as gravity, friction, or magnetism in contact or at a distance on an object. • Demonstrate that electricity travels in a closed path that can produce light and thermal energy. • Communicate observations and data using diagrams/illustrations and labels.
1.5			• In addition to 1.0 content, partial knowledge of 2.0 is evident.
1.0		Content: 4.7,4.8C SEPs: 4.1CDEFG 4.3AB RTC: 4.5BG	I can: • Investigate the patterns of forces such as gravity, friction, or magnetism in contact or at a distance on an object. • Identify the parts of an electric circuit and how electricity travels in a closed path. • Communicate observations.
0.5			• With help, partial understanding of the 1.0 content is evident • With help, communicate observations.

3rd Nine Weeks

Earth and space. The student knows that there are processes on Earth that create patterns of change. The student is expected to:

4.10B model and describe slow changes to Earth's surface caused by weathering, erosion, and deposition from water, wind, and ice

Earth and space. The student understands how natural resources are important and can be managed. The student is expected to:

4.11A identify and explain the advantages and disadvantages of using Earth's renewable and nonrenewable natural resources such as wind, water, sunlight, plants, animals, coal, oil, and natural gas

Changes to the TEKS In Force, Motion, and Energy:

- This is a priority TEKS. The TEKS and the progression have changed.
- Students do not study soils. Instead, they determine the physical properties of rocks that allow Earth's natural resources to be stored there.
- There is more rigor. The verbs have changed. Students must explain what they are learning.
- Students no longer study the weather, but they differentiate between weather and climate.

Additional TEKS to be taught:

4.9A collect and analyze data to identify sequences and predict patterns of change in seasons such as change in temperature and length of daylight; and
4.9B collect and analyze data to identify sequences and predict patterns of change in the observable appearance of the Moon from Earth.
4.10A 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
4.10C differentiate between weather and climate
4.11B explain the critical role of energy resources to modern life and how conservation, disposal, and recycling of natural resources impact the environment (NEW)
4.11C determine the physical properties of rocks that allow Earth's natural resources to be stored there (NEW)

Identify Changes to Earth's Surface and Classify Earth's Renewable Resources

Yearly Target	Nine Weeks Target	TEKS	Priority Topic: Identify Changes to Earth's Surface and Classify Earth's Renewable Resources
Extension			• Use inferences and applications that go beyond the standards.
3.0	3rd	Content: 4.10B,4.11A SEPs: 4.1CDEFG 4.2A 4.3AB RTC: 4.5B	I can: • Identify and explain the advantages and disadvantages of using Earth's renewable and nonrenewable natural resources. • Model and describe slow changes to Earth's surface caused by weathering, erosion, and deposition from water. • Use thinking using diagrams/illustrations, labels, and sentences.
2.5			• In addition to 2.0 content, partial knowledge of 3.0 is evident.
2.0		Content: 4.10B,4.11A SEPs: 4.1CDEFG 4.2A 4.3AB RTC: 4.5B	I can: • Classify Earth's renewable resources, such as wind, water, sunlight, plants, and animals, and nonrenewable resources, such as coal, oil, and natural gas. • Model and describe slow changes to Earth's surface caused by weathering, erosion, and deposition from wind. • Communicate thinking using diagrams/illustrations and labels.
1.5			• In addition to 1.0 content, partial knowledge of 2.0 is evident.
1.0		Content: 4.10B,4.11A SEPs: 4.1CDEFG 4.2A 4.3AB RTC: 4.5B	I can: • Identify Earth's natural resources, such as air, plants, soil, water, and animals, as renewable or nonrenewable. • Model and describe slow changes to Earth's surface caused by weathering, erosion, and deposition from ice. • Communicate observations.
0.5			• With help, partial understanding of the 1.0 content is evident • With help, communicate observations.

4th Nine Weeks

Organisms and environments. The student describes patterns, cycles, systems, and relationships within environments. The student is expected to:

4.12B describe the cycling of matter and flow of energy through food webs, including the roles of the Sun, producers, consumers, and decomposers

Organisms and environments. The student knows that organisms undergo similar life processes and have structures that function to help them survive within them environments. The student is expected to:

4.13A explore and explain how structures and functions of plants such as waxy leaves and deep roots enable them to survive in their environment

Changes to the TEKS In Force, Motion, and Energy:

- This is a priority TEKS. The TEKS and the progression have changed.
- Students describe the cycling of matter as they study the flow of energy through food webs and the process of photosynthesis.
- Within food webs, the roles of the Sun, producers, consumers, and decomposers are described.
- The study of fossils is new.
- 4th graders only study the structures and functions of plants. Structures and functions of animals are studied in 3rd grade.
- 4th graders no longer study learned behaviors. They differentiate between inherited and **acquired physical traits** of organisms.

Additional TEKS to be taught:

4.12A investigate and explain how most producers can make their own food using sunlight, water, and carbon dioxide through the cycling of matter
4.12C identify and describe past environments based on fossil evidence, including common Texas fossils (NEW)
4.13B differentiate between inherited and acquired physical traits of organisms

Describe and Explain the Flow of Energy Through Ecosystems

Yearly Target	Nine Weeks Target	TEKS	Priority Topic: Describe and Explain the Flow of Energy Through Ecosystems
4.0			• Use inferences and applications that go beyond the standards.
3.0	4th	Content: 4.12B, 4.13A SEPs: 4.1CDEFG 4.2A 4.3AB RTC: 4.5E	• Describe the flow of energy through food webs, beginning with the Sun, and predict how changes in the ecosystem affect the food web. • Describe the cycling of matter and how it relates to a food web. • Communicate thinking using diagrams/illustrations, labels, and sentences.
2.5			• In addition to 2.0 content, partial knowledge of 3.0 is evident.
2.0		Content: 4.12B, 4.13A SEPs: 4.1CDEFG 4.2A 4.3AB RTC: 4.5E	• Describe the relationships of multiple food chains in a food web within an ecosystem. • Explain how structures and functions of plants such as waxy leaves and deep roots enable them to survive in their environment • Communicate observations and data using diagrams/illustrations and labels.
1.5			• In addition to 1.0 content, partial knowledge of 2.0 is evident.
1.0		Content: 4.12B, 4.13A SEPs: 4.1CDEFG 4.2A 4.3AB RTC: 4.5E	• Identify the flow of energy through food chains, including the role of the Sun. • Explore how structures and functions of plants such as waxy leaves and deep roots enable them to survive in their environment • Communicate observations.
0.5			• With help, partial understanding of the 1.0 content is evident. • With help, communicate observations.