

Gateways to Science STAAR Edition for Grade 5

Unit Outline

Unit 1: Thinking like a Scientist

Approximate Teaching Time: 2–3 weeks

Lesson	Learning Goal	TEKS	
		Content	Process
1.1 Safety	Demonstrate safe practices.		5.1A
1.2 Science and Scientists	Explore how science and scientists affect our everyday lives.		5.3D
1.3 Observations and Inferences	Analyze and interpret observations and inferences.		5.2D 5.2F

Unit 2: Matter and Energy

Approximate Teaching Time: 9 weeks

Lesson	Learning Goal	TEKS	
		Content	Process
2.1 Classifying Matter	Classify matter based on physical properties.	5.5A	*
2.2 Measuring Length	Explore and measure the physical property of length.	5.5A	5.2C 5.4A
2.3 Measuring Mass	Explore and measure the physical property of mass.	5.5A	5.2E
2.4 Measuring Volume	Explore and measure the physical property of volume.	5.5A	5.2A
2.5 Density	Explore the physical property of relative density.	5.5A	5.2G 5.3A
2.6 States of Matter	Identify, explore, and differentiate between states of matter.	5.5A	*
2.7 Boiling and Freezing/Melting Points	Identify and explore boiling and freezing/melting points.	5.5A 5.5B	*
2.8 Conductors and Insulators	Explore conductors and insulators of thermal and electric energy.	5.5A 5.6B	*
2.9 Mixtures and Solutions	Investigate the physical properties of mixtures and solutions.	5.5A 5.5C 5.5D	*

*Process skills are embedded in all lessons but only indicated upon first introduction.

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Unit 3: Force, Motion, and Energy

Approximate Teaching Time: 3 weeks

Lesson	Learning Goal	TEKS	
		Content	Process
3.1 Force and Motion	Define, explore, and design an experiment to test a force.	5.6A 5.6D	5.2B
3.2 Electrical Energy	Explore electrical energy including circuits, insulators, and conductors.	5.5A 5.6A 5.6B	*
3.3 Reflection and Refraction of Light	Demonstrate how light can be reflected or refracted.	5.6C	*

Unit 4: Earth and Space, Part 1

Approximate Teaching Time: 3 weeks

Lesson	Learning Goal	TEKS	
		Content	Process
4.1 The Water Cycle	Explore and explain the interactions of the water cycle.	5.8A 5.8B	*
4.2 The Sun, Earth, and Moon	Identify and compare physical properties of the Sun, Earth, and Moon.	5.8D	*
4.3 The Rotation of Earth	Demonstrate the rotation of Earth and the apparent movement of the Sun across the sky.	5.8C	5.4B

Unit 5: Earth and Space, Part 2

Approximate Teaching Time: 4 weeks

Lesson	Learning Goal	TEKS	
		Content	Process
5.1 Earth's Changing Surface	Recognize the changes to Earth's surface by wind, water, and ice.	5.7B	*
5.2 Sedimentary Rock	Explore the processes that led to the formation of sedimentary rocks and fossil fuels.	5.7A	*
5.3 Alternative Energy Resources	Identify alternative energy resources.	5.7C	5.1B 5.3B
5.4 Past Living Organisms	Identify fossils as evidence of past living organisms; identify the nature of the environment at the time using models.	5.7D	*

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Unit 6: Organisms and Environments, Part 1

Approximate Teaching Time: 4 weeks

Lesson	Learning Goal	TEKS	
		Content	Process
6.1 Interactions of Organisms in their Environments	Observe the interaction of living and nonliving elements in an ecosystem.	5.9A	*
6.2 Food Chains and Food Webs	Describe the flow of energy through food chains and food webs.	5.9B	*
6.3 A Balanced Environment	Identify the significance of the carbon dioxide-oxygen cycle; predict the effects of changes in ecosystems caused by natural events and human interference.	5.9C 5.9D	*

Unit 7: Organisms and Environments, Part 2

Approximate Teaching Time: 3 weeks

Lesson	Learning Goal	TEKS	
		Content	Process
7.1 Structures and Functions of Organisms	Identify and compare the structures and functions of organisms that allow them to live and grow in their environments.	5.10A	*
7.2 Inherited Traits and Learned Behaviors	Identify and differentiate between inherited traits and learned behaviors.	5.10B	5.3C
7.3 Complete and Incomplete Metamorphosis of Insects	Describe the differences between complete and incomplete metamorphosis of insects.	5.10C	*

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