

Cycle 1	27 Days	The recommended number of lessons is less than the number of days in the grading cycle to accommodate differentiated instruction, extended learning time, and assessment days. Complete instructional planning information and support are in the HISD Curriculum documents.
	Aug. 23 - Oct. 1, 2021	
Unit	Number of Lessons	Texas Essential Knowledge and Skills/Student Expectations (TEKS/SEs) The student will:
<b>Unit 1: Setting Up for Science</b>	<b>2</b> 45-minute lessons  <b>Suggested Pacing:</b> Aug. 23-24	<b>Unit 1: Setting Up for Science</b> (2 lessons) Ⓢ <b>SCI.5.1A</b> Demonstrate safe practices and the use of safety equipment as described in the Texas Education Agency-approved safety standards during classroom and outdoor investigations using safety equipment, including safety goggles or chemical splash goggles as appropriate, and gloves, as appropriate. Ⓢ <b>SCI.5.4A</b> Collect, record, and analyze information using tools, including calculators, microscopes, cameras, computers, hand lenses, metric rulers, Celsius thermometers, prisms, mirrors, balances, spring scales, graduated cylinders, beakers, hot plates, meter sticks, magnets, collecting nets, and <b>notebooks</b> ; timing devices, and materials to support observations of habitats or organisms such as terrariums and aquariums.
<b>Unit 2: Force and Motion</b> In this unit, students will conduct investigations to determine the effects of forces and identify how variables affect data.	<b>4</b> 45-minute lessons  <b>Suggested Pacing:</b> Aug. 25-30	<b>Unit 2: Force and Motion</b> (4 lessons) Ⓢ <b>SCI.5.6D</b> Design a simple experimental investigation that tests the effect of force on an object. Ⓢ <b>SCI.5.2A</b> Describe, plan, and implement simple experimental investigations testing one variable. Ⓢ <b>SCI.5.2B</b> Ask well-defined questions, formulate testable hypotheses, and select and use appropriate equipment and technology. Ⓢ <b>SCI.5.2D</b> Analyze and interpret information to construct reasonable explanations from direct (observable) and indirect (inferred) evidence. Ⓢ <b>SCI.5.4A</b> Collect, record, and analyze information using tools, including calculators, microscopes, cameras, computers, hand lenses, metric rulers, Celsius thermometers, prisms, mirrors, balances, spring scales, graduated cylinders, beakers, hot plates, meter sticks, magnets, collecting nets, and notebooks; timing devices, and materials to support observations of habitats or organisms such as terrariums and aquariums. Ⓢ <b>SCI.3.6B</b> Demonstrate and observe how position and motion can be changed by pushing and pulling objects such as swings, balls, and wagons.
<b>Unit 3: Physical Properties of Matter</b> In this unit, students will classify matter based on measurable, testable, and observable	<b>14</b> 45-minute lessons  <b>Part 1 Suggested Pacing:</b> Aug. 31 – Sept. 1	<b>Part 1: Matter and Change</b> (2 lessons) Ⓢ <b>SCI.5.5A</b> Classify matter based on measurable, testable, and observable physical properties, including mass, magnetism, <b>physical state (solid, liquid, and gas)</b> , relative density (sinking and floating using water as a reference point), solubility in water, and the ability to conduct or insulate thermal energy or electric energy. Ⓢ <b>SCI.3.5C</b> Predict, observe, and record changes in the state of matter caused by heating or cooling such as ice becoming liquid water, condensation forming on the outside of a glass of ice water, or liquid water being heated to the point of becoming water vapor.

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## 2021-2022 Scope and Sequence

### Science – Grade 5

Cycle 1	27 Days	The recommended number of lessons is less than the number of days in the grading cycle to accommodate differentiated instruction, extended learning time, and assessment days. Complete instructional planning information and support are in the HISD Curriculum documents.
	Aug. 23 - Oct. 1, 2021	
Unit	Number of Lessons	Texas Essential Knowledge and Skills/Student Expectations (TEKS/SEs) The student will:
physical properties.	<b>Part 2</b> <b>Suggested Pacing:</b> Sept. 2	<p>Ⓟ <b>SCI.5.2G</b> Construct appropriate simple graphs, tables, maps, and charts using technology, including computers, to organize, examine, and evaluate information.</p>
	<b>Part 3</b> <b>Suggested Pacing:</b> Sept. 3-7  <i>Labor Day</i> Sept. 6	<p><b>Part 2: Magnetism</b> (1 lesson)            Ⓡ <b>SCI.5.5A</b> Classify matter based on measurable, testable and observable physical properties, including mass, <b>magnetism</b>, physical state (solid, liquid, and gas), relative density (sinking and floating using water as a reference point), solubility in water, and the ability to conduct or insulate thermal energy or electric energy.            Ⓟ <b>SCI.5.2D</b> Analyze and interpret information to construct reasonable explanations from direct (observable) and indirect (inferred) evidence.</p>
	<b>Part 4</b> <b>Suggested Pacing:</b> Sept. 8-9	<p><b>Part 3: Relative Density</b> (2 lessons)            Ⓡ <b>SCI.5.5A</b> Classify matter based on measurable, testable and observable physical properties, including mass, magnetism, physical state (solid, liquid, and gas), <b>relative density (sinking and floating using water as a reference point)</b>, solubility in water, and the ability to conduct or insulate thermal energy or electric energy.            Ⓟ <b>SCI.5.2B</b> Ask well-defined questions, formulate testable hypotheses, and select and use appropriate equipment and technology.            Ⓟ <b>SCI.5.2D</b> Analyze and interpret information to construct reasonable explanations from direct (observable) and indirect (inferred) evidence.</p>
	<b>Part 5</b> <b>Suggested Pacing:</b> Sept. 10-13	<p><b>Part 4: Mixtures</b> (2 lessons)            Ⓢ <b>SCI.5.5B</b> Demonstrate that some mixtures maintain physical properties of their ingredients such as iron filings and sand and sand and water.            Ⓟ <b>SCI.5.2D</b> analyze and interpret information to construct reasonable explanations from direct (observable) and indirect (inferred) evidence.</p>
		<p><b>Part 5: Solutions and Solubility</b> (2 lessons)            Ⓡ <b>SCI.5.5A</b> Classify matter based on measurable, testable and observable physical properties, including mass, magnetism, physical state (solid, liquid, and gas), relative density (sinking and floating using water as a reference point), <b>solubility in water</b>, and the ability to conduct or insulate thermal energy or electric energy.            Ⓢ <b>SCI.5.5C</b> Identify changes that can occur in the physical properties of the ingredients of solutions such as dissolving salt in water or adding lemon juice to water.            Ⓟ <b>SCI.5.2B</b> Ask well-defined questions, formulate testable hypotheses, and select and use appropriate equipment and technology.            Ⓟ <b>SCI.5.2D</b> Analyze and interpret information to construct reasonable explanations from direct (observable) and indirect (inferred) evidence.            Ⓟ <b>SCI.5.4A</b> Collect, record, and analyze information using tools, including calculators, microscopes, cameras, computers, hand lenses, metric rulers, Celsius thermometers, prisms, mirrors, balances, spring scales, graduated cylinders, beakers, hot plates, meter sticks, magnets, collecting nets, and</p>

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### Science – Grade 5

Cycle 1	27 Days	The recommended number of lessons is less than the number of days in the grading cycle to accommodate differentiated instruction, extended learning time, and assessment days. Complete instructional planning information and support are in the HISD Curriculum documents.
	Aug. 23 - Oct. 1, 2021	
Unit	Number of Lessons	Texas Essential Knowledge and Skills/Student Expectations (TEKS/SEs) The student will:
	<p><b>Part 6</b> <b>Suggested Pacing:</b> Sept. 14-20</p> <p><i>Fall Holiday</i> Sept. 16</p> <p><i>Teacher Service Day (no students)</i> Sept. 17</p> <p><b>Part 7</b> <b>Suggested Pacing:</b> Sept. 21-22</p> <p><b>Extend Review Assess Reteach</b> 4 days Sept. 23-28</p>	<p>notebooks; timing devices, and materials to support observations of habitats or organisms such as terrariums and aquariums.</p> <p><b>Part 6: Conductors and Insulators</b> (3 lessons)            ® <b>SCI.5.5A</b> Classify matter based on measurable, testable and observable physical properties, including mass, magnetism, physical state (solid, liquid, and gas), relative density (sinking and floating using water as a reference point), solubility in water, and <b>the ability to conduct or insulate thermal energy or electric energy</b>.            ® <b>SCI.5.6A</b> Explore the uses of energy, including mechanical, light, thermal, electrical, and sound energy.            ® <b>SCI.5.2D</b> Analyze and interpret information to construct reasonable explanations from direct (observable) and indirect (inferred) evidence.            ® <b>SCI.5.2F</b> Communicate valid conclusions in both written and verbal forms.</p> <p><b>Part 7: Classifying Multiple Properties and Process Skills</b> (2 lessons)            ® <b>SCI.5.5A</b> Classify matter based on measurable, testable and observable physical properties, including mass, magnetism, physical state (solid, liquid, and gas), relative density (sinking and floating using water as a reference point), solubility in water, and the ability to conduct or insulate thermal energy or electric energy.            ® <b>SCI.5.2D</b> analyze and interpret information to construct reasonable explanations from direct (observable) and indirect (inferred) evidence.</p>
<p><b>Cycle 1 Cumulative Project</b> Students will use the content learned during this cycle to engage in Project-Based Learning.</p>	<p><b>3</b> 45-minute lessons</p> <p><b>Suggested Pacing:</b> Sept. 29 – Oct. 1</p>	<p><b>Cycle 1 Cumulative Project: The Facts of the Matter</b> (3 lessons)</p>

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## 2021-2022 Scope and Sequence

### Science – Grade 5

Cycle 2	29 Days	The recommended number of lessons is less than the number of days in the grading cycle to accommodate differentiated instruction, extended learning time, and assessment days. Complete instructional planning information and support are in the HISD Curriculum documents.
	Oct. 5 - Nov. 12, 2021	
Unit	Number of Lessons	Texas Essential Knowledge and Skills/Student Expectations (TEKS/SEs) The student will:
<b>Unit 4: Uses of Energy</b> In this unit, students will explore the uses and characteristics of different forms of energy.	<b>7</b> 45-minute lessons  <b>Suggested Pacing:</b> Oct. 5-13  <i>Teacher Service Day (no students)</i> Oct. 4	<b>Unit 4: Uses of Energy</b> (7 lessons) ® <b>SCI.5.6A</b> Explore the uses of energy, including mechanical, light, thermal, electrical, and sound energy. Ⓟ <b>SCI.5.2D</b> Analyze and interpret information to construct reasonable explanations from direct (observable) and indirect (inferred) evidence.
<b>Unit 5: Light</b> In this unit, students will demonstrate and describe the ways that light travels.	<b>6</b> 45-minute lessons  <b>Suggested Pacing:</b> Oct. 14-21  <b>Extend Review Assess Reteach</b> 6 days Oct. 22-29  <b>Snapshot 1 Suggested Window:</b> Oct. 25-29  <a href="#">See Outline for TEKS Details</a>	<b>Unit 5: Light</b> (6 lessons) ® <b>SCI.5.6C</b> Demonstrate that light travels in a straight line until it strikes an object and is reflected or travels through one medium to another and is refracted. Ⓟ <b>SCI.5.2D</b> Analyze and interpret information to construct reasonable explanations from direct (observable) and indirect (inferred) evidence. Ⓟ <b>SCI.5.2G</b> Construct appropriate simple graphs, tables, maps, and charts using technology, including computers, to organize, examine, and evaluate information. Ⓟ <b>SCI.5.3B</b> Draw or develop a model that represents how something that cannot be seen such as the Sun, Earth, and Moon system and formation of sedimentary rock works or looks.

Cycle 2	29 Days	The recommended number of lessons is less than the number of days in the grading cycle to accommodate differentiated instruction, extended learning time, and assessment days. Complete instructional planning information and support are in the HISD Curriculum documents.
	Oct. 5 - Nov. 12, 2021	
Unit	Number of Lessons	Texas Essential Knowledge and Skills/Student Expectations (TEKS/SEs) The student will:
<b>Unit 6: Electricity</b> In this unit, students will investigate electricity and how it is used.	<b>7</b> 45-minute lessons  <b>Suggested Pacing:</b> Nov. 1-9	<b>Unit 6: Electricity</b> (7 lessons) Ⓡ <b>SCI.5.6B</b> Demonstrate that the flow of electricity in closed circuits can produce light, heat, and sound. Ⓡ <b>SCI.5.5A</b> Classify matter based on measurable, testable, and observable physical properties, including mass, magnetism, physical state (solid, liquid, and gas), relative density (sinking and floating using water as a reference point), solubility in water, and the ability to <b>conduct or insulate</b> thermal energy or <b>electric energy</b> . Ⓟ <b>SCI.5.2D</b> Analyze and interpret information to construct reasonable explanations from direct (observable) and indirect (inferred) evidence. Ⓟ <b>SCI.5.2F</b> Communicate valid conclusions in both written and verbal forms. Ⓟ <b>SCI.5.3B</b> Draw or develop a model that represents how something that cannot be seen such as the Sun, Earth, and Moon system and formation of sedimentary rock works or looks.
<b>Cycle 2 Cumulative Project</b> Students will use the content learned during this cycle to engage in Project-Based Learning.	<b>3</b> 45-minute lessons  <b>Suggested Pacing:</b> Nov. 10-12	<b>Cycle 2 Cumulative Project: Make it Happen with Rube Goldberg Machines</b> (3 lessons)



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Cycle 3	30 Days	The recommended number of lessons is less than the number of days in the grading cycle to accommodate differentiated instruction, extended learning time, and assessment days. Complete instructional planning information and support are in the HISD Curriculum documents.
	Nov. 15, 2021 - Jan. 14, 2022	
Unit	Number of Lessons	Texas Essential Knowledge and Skills/Student Expectations (TEKS/SEs) The student will:
<b>Unit 7: Water Cycle</b> In this unit, students will explain how the Sun and oceans interact in the water cycle and demonstrate understanding of each process in the water cycle.	<b>5</b> 45-minute lessons  <b>Suggested Pacing:</b> Nov. 15-19  <i>Thanksgiving Break</i> Nov. 22-26	<b>Unit 7: Water Cycle</b> (5 lessons) Ⓢ <b>SCI.5.8B</b> Explain how the Sun and the ocean interact in the water cycle. Ⓢ <b>SCI.4.8B</b> 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>SCI.3.5C</b> Predict, observe, and record changes in the state of matter caused by heating or cooling such as ice becoming liquid water, condensation forming on the outside of a glass of ice water, or liquid water being heated to the point of becoming water vapor. Ⓟ <b>SCI.5.3B</b> Draw or develop a model that represents how something that cannot be seen such as the Sun, Earth, and Moon system and formation of sedimentary rock works or looks.
<b>Unit 8: Weather and Climate</b> In this unit, students will predict and record changes in weather and differentiate between weather and climate.	<b>3</b> 45-minute lessons  <b>Suggested Pacing:</b> Nov. 29 – Dec. 1	<b>Unit 8: Weather and Climate</b> (3 lessons) Ⓢ <b>SCI.5.8A</b> Differentiate between weather and climate. Ⓢ <b>SCI.4.8A</b> Measure, record, and predict changes in weather. Ⓟ <b>SCI.5.2C</b> Collect and record information using detailed observations and accurate measuring. Ⓟ <b>SCI.5.2D</b> Analyze and interpret information to construct reasonable explanations from direct (observable) and indirect (inferred) evidence.
<b>Unit 9: Landforms</b> In this unit, students will recognize how the forces of weathering, erosion, and deposition change Earth's landscape.	<b>8</b> 45-minute lessons  <b>Suggested Pacing:</b> Dec. 2-13  <b>Extend Review Assess Reteach</b> 6 days Dec. 14-17 Jan. 3-4	<b>Unit 9: Landforms</b> (8 lessons) Ⓡ <b>SCI.5.7B</b> Recognize how landforms such as deltas, canyons, and sand dunes are the result of changes to Earth's surface by wind, water, and ice. Ⓢ <b>SCI.3.7B</b> Investigate rapid changes in Earth's surface such as volcanic eruptions, earthquakes, and landslides. Ⓟ <b>SCI.5.2D</b> Analyze and interpret information to construct reasonable explanations from direct (observable) and indirect (inferred) evidence. Ⓟ <b>SCI.5.3B</b> Draw or develop a model that represents how something that cannot be seen such as the Sun, Earth, and Moon system and formation of sedimentary rock works or looks.

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### Science – Grade 5

Cycle 3	30 Days	The recommended number of lessons is less than the number of days in the grading cycle to accommodate differentiated instruction, extended learning time, and assessment days. Complete instructional planning information and support are in the HISD Curriculum documents.
	Nov. 15, 2021 - Jan. 14, 2022	
Unit	Number of Lessons	Texas Essential Knowledge and Skills/Student Expectations (TEKS/SEs) The student will:
	<b>District-Level Assessment</b> <b>Suggested Window:</b> Dec. 6-17  <a href="#">See Blueprint for TEKS Details</a>  <i>Enrichment Opportunities</i> Dec. 20-21  <i>Winter Break</i> Dec. 20-31	
<b>Unit 10: Earth's Materials and Processes</b> In this unit, students will explore Earth's natural resources and identify the processes that led to the formation of sedimentary rocks and fossil fuels.	<b>5</b> 45-minute lessons  <b>Suggested Pacing:</b> Jan. 5-11	<b>Unit 10: Earth's Materials and Processes</b> (5 lessons) ® <b>SCI.5.7A</b> Explore the processes that led to the formation of sedimentary rocks and fossil fuels. ® <b>SCI.4.7A</b> Examine properties of soils, including color and texture, capacity to retain water, and ability to support the growth of plants. ® <b>SCI.4.7C</b> Identify and classify Earth's renewable resources, including air, plants, water, and animals; and nonrenewable resources, including coal, oil, and natural gas; and the importance of conservation. ® <b>SCI.5.2C</b> Collect and record information using detailed observations and accurate measuring. ® <b>SCI.5.2D</b> Analyze and interpret information to construct reasonable explanations from direct (observable) and indirect (inferred) evidence. ® <b>SCI.5.3B</b> Draw or develop a model that represents how something that cannot be seen such as the Sun, Earth, and Moon system and formation of sedimentary rock works or looks.
<b>Cycle 3 Cumulative Project</b> Students will use the content learned during this cycle to engage in Project-Based Learning.	<b>3</b> 45-minute lessons  <b>Suggested Pacing:</b> Jan. 12-14  <i>MLK Jr. Day</i> Jan. 17  <i>Teacher Prep Day</i>	<b>Cycle 3 Cumulative Project: Flooding in Houston</b> (3 lessons)

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<b>Cycle 3</b>	<b>30 Days</b>	The recommended number of lessons is less than the number of days in the grading cycle to accommodate differentiated instruction, extended learning time, and assessment days. Complete instructional planning information and support are in the HISD Curriculum documents.
	Nov. 15, 2021 - Jan. 14, 2022	
<b>Unit</b>	<b>Number of Lessons</b>	<b>Texas Essential Knowledge and Skills/Student Expectations (TEKS/SEs)</b> <b>The student will:</b>
	(no students) Jan. 18	





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## 2021-2022 Scope and Sequence

### Science – Grade 5

Cycle 4	27 Days	The recommended number of lessons is less than the number of days in the grading cycle to accommodate differentiated instruction, extended learning time, and assessment days. Complete instructional planning information and support are in the HISD Curriculum documents.
	Jan. 19 - Feb. 25, 2022	
Unit	Number of Lessons	Texas Essential Knowledge and Skills/Student Expectations (TEKS/SEs) The student will:
<b>Unit 11: The Sun, Earth, Moon System</b> In this unit, students will investigate the day and night cycle as well as the interactions between the Sun, Moon, and Earth.	<b>10</b> 45-minute lessons  <b>Suggested Pacing:</b> Jan. 19 – Feb. 1  <i>MLK Jr. Day</i> <i>Jan. 17</i>  <i>Teacher Prep Day</i> <i>(no students)</i> <i>Jan. 18</i>	<b>Unit 11: The Sun, Earth, Moon System</b> (10 lessons) Ⓡ <b>SCI.5.8C</b> Demonstrate that Earth rotates on its axis once approximately every 24 hours causing the day/night cycle and the apparent movement of the Sun across the sky. Ⓢ <b>SCI.5.8D</b> Identify and compare the physical characteristics of the Sun, Earth, and Moon. Ⓢ <b>SCI.3.8D</b> Identify the planets in Earth's solar system and their position in relation to the Sun. Ⓢ <b>SCI.4.8C</b> Collect and analyze data to identify sequences and predict patterns of change in shadows, seasons, and the observable appearance of the Moon over time. Ⓢ <b>SCI.5.2D</b> Analyze and interpret information to construct reasonable explanations from direct (observable) and indirect (inferred) evidence. Ⓢ <b>SCI.5.2G</b> Construct appropriate simple graphs, tables, maps, and charts using technology, including computers, to organize, examine, and evaluate information. Ⓢ <b>SCI.5.3B</b> Draw or develop a model that represents how something that cannot be seen such as the Sun, Earth, and Moon system and formation of sedimentary rock works or looks.
<b>Unit 12: Organisms and Ecosystems</b> In this unit, students will explore the elements that make up an ecosystem and how organisms interact with the components of an ecosystem.	<b>7</b> 45-minute lessons  <b>Suggested Pacing:</b> Feb. 2-10  <b>Extend Review Assess Reteach</b> 6 days Feb. 11-18	<b>Unit 12: Organisms and Ecosystems</b> (7 lessons) Ⓡ <b>SCI.5.9A</b> Observe the way organisms live and survive in their ecosystem by interacting with the living and non-living components. Ⓢ <b>SCI.5.9C</b> Predict the effects of changes in ecosystems caused by living organisms, including humans, such as the overpopulation of grazers or the building of highways. Ⓢ <b>SCI.5.9D</b> Identify fossils as evidence of past living organisms and the nature of the environments at the time using models. Ⓢ <b>SCI.3.9A</b> Observe and describe the physical characteristics of environments and how they support populations and communities of plants and animals within an ecosystem. Ⓢ <b>SCI.5.2D</b> Analyze and interpret information to construct reasonable explanations from direct (observable) and indirect (inferred) evidence. Ⓢ <b>SCI.5.2G</b> Construct appropriate simple graphs, tables, maps, and charts using technology, including computers, to organize, examine, and evaluate information.

Cycle 4	27 Days	The recommended number of lessons is less than the number of days in the grading cycle to accommodate differentiated instruction, extended learning time, and assessment days. Complete instructional planning information and support are in the HISD Curriculum documents.
	Jan. 19 - Feb. 25, 2022	
Unit	Number of Lessons	Texas Essential Knowledge and Skills/Student Expectations (TEKS/SEs) The student will:
<b>Cycle 4 Cumulative Project</b> Students will use the content learned during this cycle to engage in Project-Based Learning.	<b>4</b> 45-minute lessons  <b>Suggested Pacing:</b> Feb. 22-25  <i>Teacher Service Day (no students)</i> <i>Feb. 21</i>	<b><u>Cycle 4 Cumulative Project: Organisms and environments</u></b> (4 lessons)

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Cycle 5	33 Days	The recommended number of lessons is less than the number of days in the grading cycle to accommodate differentiated instruction, extended learning time, and assessment days. Complete instructional planning information and support are in the HISD Curriculum documents.
	Feb. 28 - Apr. 22, 2022	
Unit	Number of Lessons	Texas Essential Knowledge and Skills/Student Expectations (TEKS/SEs) The student will:
<b>Unit 13: Food Webs</b> In this unit, students will explore and describe how organisms gain energy for survival.	7 45-minute lessons <b>Suggested Pacing:</b> Feb. 28 – Mar. 8 <b>Snapshot 2 Suggested Window:</b> Feb. 28 – Mar. 4 <a href="#">See Outline for TEKS Details</a>	<b>Unit 13: Food Webs</b> (7 lessons) Ⓡ <b>SCI.5.9B</b> Describe the flow of energy within a food web, including the roles of the Sun, producers, consumers, and decomposers. Ⓢ <b>SCI.5.9C</b> Predict the effects of changes in ecosystems caused by living organisms, including humans, such as the overpopulation of grazers or the building of highways. Ⓡ <b>SCI.5.9A</b> Observe the way organisms live and survive in their ecosystem by interacting with the living and nonliving components. Ⓢ <b>SCI.5.2D</b> Analyze and interpret information to construct reasonable explanations from direct (observable) and indirect (inferred) evidence. Ⓢ <b>SCI.5.3B</b> Draw or develop a model that represents how something that cannot be seen such as the Sun, Earth, and Moon system and formation of sedimentary rock works or looks.
<b>Unit 14: Adaptations</b> In this unit, students will compare the structure and functions of organisms.	11 45-minute lessons <b>Part 1 Suggested Pacing:</b> Mar. 9-11 <i>Enrichment Opportunities</i> Mar. 14-16 <i>Spring Break</i> Mar. 14-18 <b>Part 2 Suggested Pacing:</b> Mar. 21-25 <i>Chávez-Huerta Day</i> Mar. 28 <b>Part 3 Suggested Pacing:</b> Mar. 29-31 <b>Extend Review Assess Reteach</b> 2 days Apr. 1-4	<b>Part 1: Plant Adaptations</b> (3 lessons) Ⓡ <b>SCI.5.10A</b> Compare the structures and functions of different species that help them live and survive in a specific environment such as hooves on prairie animals or webbed feet in aquatic animals. Ⓢ <b>SCI.5.2C</b> Collect and record information using detailed observations and accurate measuring. Ⓢ <b>SCI.5.2D</b> Analyze and interpret information to construct reasonable explanations from direct (observable) and indirect (inferred) evidence. <hr/> <b>Part 2: Animal Adaptations</b> (5 lessons) Ⓡ <b>SCI.5.10A</b> Compare the structures and functions of different species that help them live and survive in a specific environment such as hooves on prairie animals or webbed feet in aquatic animals. Ⓢ <b>SCI.5.2C</b> Collect and record information using detailed observations and accurate measuring. Ⓢ <b>SCI.5.2D</b> Analyze and interpret information to construct reasonable explanations from direct (observable) and indirect (inferred) evidence. <hr/> <b>Part 3: Inherited Traits and Learned Behaviors</b> (3 lessons) Ⓡ <b>SCI.5.10B</b> Differentiate between inherited traits of plants and animals such as spines on a cactus or shape of a beak and learned behaviors such as an animal learning tricks or a child riding a bicycle. Ⓢ <b>SCI.5.2C</b> Collect and record information using detailed observations and accurate measuring. Ⓢ <b>SCI.5.2D</b> Analyze and interpret information to construct reasonable explanations from direct (observable) and indirect (inferred) evidence.

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Cycle 5	33 Days	Texas Essential Knowledge and Skills/Student Expectations (TEKS/SEs) The student will:
	Feb. 28 - Apr. 22, 2022	
<b>Cycle 5 Cumulative Project</b> Students will use the content learned during this cycle to engage in Project-Based Learning.	<b>4</b> 45-minute lessons  <b>Suggested Pacing:</b> Apr. 5-8  <b>Extend Review Assess Reteach</b> 4 days Apr. 11-14  <i>Spring Holiday</i> Apr. 15	<b>Cycle 5 Cumulative Project: Home Sweet Home</b> (4 lessons)
	<b>STAAR-Released Assessment</b> <b>Suggested Window:</b> Apr. 4-22  2019 Released Assessment	
<b>Unit 15: Physical Science Review</b> In this unit, students will review matter and energy as well as force, motion, and energy concepts.	<b>5</b> 45-minute lessons  <b>Suggested Pacing:</b> Apr. 18-22	<b>Unit 15: Physical Science Review</b> (5 lessons) Ⓢ <b>SCI.5.5A</b> Classify matter based on measurable, testable, and observable physical properties, including mass, magnetism, physical state solid, liquid, and gas, relative density sinking and floating using water as a reference point, solubility in water, and the ability to conduct or insulate thermal energy or electric energy. Ⓢ <b>SCI.5.6A</b> Explore the uses of energy, including mechanical, light, thermal, electrical, and sound energy. Ⓢ <b>SCI.5.6B</b> Demonstrate that the flow of electricity in closed circuits can produce light, heat, and sound. Ⓢ <b>SCI.5.6C</b> Demonstrate that light travels in a straight line until it strikes an object and is reflected or travels through one medium to another and is refracted.

# HISD | Elementary Curriculum and Development

INSPIRING TEACHING, IGNITING LITERACY & LEARNING.

## 2021-2022 Scope and Sequence

### Science – Grade 5

Cycle 6		31 Days Apr. 25 - June 7, 2022	The recommended number of lessons is less than the number of days in the grading cycle to accommodate differentiated instruction, extended learning time, and assessment days. Complete instructional planning information and support are in the HISD Curriculum documents.
Unit	Number of Lessons	Texas Essential Knowledge and Skills/Student Expectations (TEKS/SEs) The student will:	
<b>Unit 16: Earth and Space Science Review</b> In this unit, students will review Earth science concepts.	<b>5</b> 45-minute lessons  <b>Suggested Pacing:</b> Apr. 25-29	<b>Unit 16: Earth and Space Science Review</b> (5 lessons) Ⓡ <b>SCI.5.7A</b> Explore the processes that led to the formation of sedimentary rocks and fossil fuels. Ⓡ <b>SCI.5.7B</b> Recognize how landforms such as deltas, canyons, and sand dunes are the result of changes to Earth's surface by wind, water, and ice Ⓡ <b>SCI.5.8C</b> Demonstrate that Earth rotates on its axis once approximately every 24 hours causing the day/night cycle and the apparent movement of the Sun across the sky. Ⓢ <b>SCI.4.8C</b> Collect and analyze data to identify sequences and predict patterns of change in shadows, seasons, and the observable appearance of the Moon over time.	
<b>Unit 17: Life Science Review</b> In this unit, students will review life science concepts.	<b>5</b> 45-minute lessons  <b>Suggested Pacing:</b> May 2-6  <b>Extend Review Assess Reteach</b> 5 days May 9-13  <b>STAAR Assessment Science</b> May 12	<b>Unit 17: Life Science Review</b> (5 lessons) Ⓡ <b>SCI.5.9A</b> Observe the way organisms live and survive in their ecosystem by interacting with the living and non-living components. Ⓡ <b>SCI.5.9B</b> Describe the flow of energy within a food web, including the roles of the Sun, producers, consumers, and decomposers. Ⓡ <b>SCI.5.10A</b> Compare the structures and functions of different species that help them live and survive in a specific environment such as hooves on prairie animals or webbed feet in aquatic animals. Ⓡ <b>SCI.5.10B</b> Differentiate between inherited traits of plants and animals such as spines on a cactus or shape of a beak and learned behaviors such as an animal learning tricks or a child riding a bicycle. Ⓢ <b>SCI.3.10B</b> Investigate and compare how animals and plants undergo a series of orderly changes in their diverse life cycles such as tomato plants, frogs, and lady beetles.	
<b>Unit 18: Investigations</b> In this unit, students will conduct three types of investigations: experimental, comparative, and descriptive.	<b>11</b> 45-minute lessons  <b>Suggested Pacing:</b> May 16-31  <i>Memorial Day</i> <i>May 30</i>	<b>Unit 18: Investigations</b> (11 lessons) Ⓢ <b>SCI.5.2A</b> Describe, plan, and implement simple experimental investigations testing one variable. Ⓢ <b>SCI.6.2A</b> Plan and implement comparative and descriptive investigations by making observations, asking well-defined questions, and using appropriate equipment and technology.	

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### Science – Grade 5

Cycle 6	31 Days	The recommended number of lessons is less than the number of days in the grading cycle to accommodate differentiated instruction, extended learning time, and assessment days. Complete instructional planning information and support are in the HISD Curriculum documents.
	Apr. 25 - June 7, 2022	
Unit	Number of Lessons	Texas Essential Knowledge and Skills/Student Expectations (TEKS/SEs) The student will:
<b>Cycle 6 Cumulative Project</b> Students will use the content learned during this cycle to engage in Project-Based Learning.	<b>5</b> 45-minute lessons  <b>Suggested Pacing:</b> Jun. 1-7  <i>Teacher Prep Day</i> <i>(no students)</i> <i>June 8</i>	<b><u>Cycle 6 Cumulative Project: Science Fair</u></b> (5 lessons)