

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:
Unit 1: Setting up for Science In this unit, students explore what scientists do, identify safe practices in science, set up interactive notebooks, and review important tools they will be using in science.	2 45-minute lessons <i>Enrichment Opportunities</i> Aug. 2-13 <i>Teachers Report to Work</i> Aug. 16 <i>Teacher Service Days</i> Aug. 16-17, Aug. 19-20 <i>Teacher Prep Day</i> (no students) Aug. 18 Part 1: Suggested Pacing: Aug. 23 Part 2: Suggested Pacing: Aug. 24	Part 1: What Scientists Do (1 lesson) (PS) SCI.2.3C Identify what a scientist is and explore what different scientists do.
		Part 2: Safety and Tools (1 lesson) (PS) SCI.2.1A Identify, describe, and demonstrate safe practices as outlined in the Texas Education Agency-approved safety standards during classroom and outdoor investigations, including wearing safety goggles or chemical splash goggles, as appropriate, washing hands, and using materials appropriately. (PS) SCI.2.4A Collect, record, and compare information using tools, including computers, hand lenses, rulers, plastic beakers, magnets, collecting nets, notebooks, and safety goggles or chemical splash goggles, as appropriate; timing devices; weather instruments such as thermometers, wind vanes, and rain gauges; and materials to support observations of habitats of organisms such as terrariums and aquariums.
Unit 2: Movement and Magnetism In this unit, students conduct investigations to compare patterns of movement over time and identify how magnets are used in everyday life.	6 45-minute lessons Part 1 Suggested Pacing: Aug. 25-26 Part 2 Suggested Pacing: Aug. 27 – Sept. 1	Part 1: Patterns of Movement (2 lessons) SCI.2.6C Trace and compare patterns of movement of objects such as sliding, rolling, and spinning over time. (PS) SCI.2.2B Plan and conduct descriptive investigations (PS) SCI.2.2E Communicate observations and justify explanations using student-generated data from simple descriptive investigations.
		Part 2: Magnets (4 lessons) SCI.2.6B Observe and identify how magnets are used in everyday life.

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Unit 3: Properties of Solids and Liquids In this unit, students classify solid and liquid matter by their physical properties.	4 45-minute lessons Suggested Pacing: Sept. 2-8 <i>Labor Day</i> Sept. 6	Unit 3: Properties of Solids and Liquids (4 lessons) SCI.2.5A Classify matter by physical properties, including relative temperature, texture, flexibility, and whether material is a solid or liquid.
Unit 4: Properties and Changes in Matter In this unit, students make observations and collect data using science tools to understand that physical properties of an object can be measured and may be changed.	7 45-minute lessons Part 1 Suggested Pacing: Sept. 9 Part 2 Suggested Pacing: Sept. 10 Part 3 Suggested Pacing: Sept. 13 Part 4 Suggested Pacing: Sept. 14-15 <i>Fall Holiday</i> Sept. 16 <i>Teacher Service Day (no students)</i> Sept. 17	Part 1: Matter Has Texture (1 lesson) SCI.2.5A Classify matter by physical properties, including relative temperature, texture, flexibility, and whether material is a solid or liquid.
		Part 2: Matter Has Flexibility (1 lesson) SCI.2.5A Classify matter by physical properties, including relative temperature, texture, flexibility , and whether material is a solid or liquid.
		Part 3: Matter Has a Temperature (1 lesson) SCI.2.5A Classify matter by physical properties, including relative temperature , texture, flexibility, and whether material is a solid or liquid. PS SCI.2.4A Collect, record, and compare information using tools, including computers, hand lenses, rulers, plastic beakers, magnets, collecting nets, notebooks, and safety goggles or chemical splash goggles, as appropriate; timing devices; weather instruments such as thermometers , wind vanes, and rain gauges; and materials to support observations of habitats of organisms such as terrariums and aquariums.
		Part 4: Matter Can be Classified in Multiple Ways (2 lessons) SCI.2.5A Classify matter by physical properties, including relative temperature, texture, flexibility, and whether material is a solid or liquid.
Unit 4: Properties and Changes in Matter		

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In this unit, students make observations and collect data using science tools to understand that physical properties of an object can be measured and may be changed.	<p>Part 5 Suggested Pacing: Sept. 20-21</p> <p>Extend Review Assess Reteach 4 days Sept. 22-27</p> <p>District Formative Assessment DFA 1 Suggested Window: Sept. 23-27</p> <p>See Outline for TEKS Details</p>	<p>Part 5: Matter Can Change (2 lessons) SCI.2.5C Demonstrate that things can be done to materials such as cutting, folding, sanding, and melting to change their physical properties. PS SCI.2.2B Plan and conduct descriptive investigations. PS SCI.2.2E Communicate observations and justify explanations using student-generated data from simple descriptive investigations.</p>
<p>Cycle 1 Cumulative Project Students will use the content learned during this cycle to engage in Project-Based Learning.</p>	<p>4 45-minute lessons</p> <p>Suggested Pacing: Sept. 28 – Oct. 1</p>	<p>Cycle 1 Cumulative Project: What's the Matter?</p>

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:
Unit 5: Effects of Heat, Light, and Sound Energy In this unit, students conduct simple investigations to determine what may occur when the amounts of heat, light, and sound are increased or decreased.	14 45-minute lessons <i>Teacher Service Day (no students)</i> Oct. 4	Part 1: Heat Energy (4 lessons) SCI.2.5B Compare changes in materials caused by heating and cooling. SCI.2.6A Investigate the effects on objects by increasing or decreasing amounts of light, heat , and sound energy such as how the color of an object appears different in dimmer light or how heat melts butter. PS SCI.2.2F Compare results of investigations with what students and scientists know about the world.
	Part 1 Suggested Pacing: Oct. 5-8 Part 2 Suggested Pacing: Oct. 11-15	Part 2: Light Energy (5 lessons) SCI.2.6A Investigate the effects on objects by increasing or decreasing amounts of light , heat, and sound energy such as how the color of an object appears different in dimmer light or how heat melts butter.
	Part 3 Suggested Pacing: Oct. 18-22	Part 3: Sound Energy (5 lessons) SCI.2.6A Investigate the effects on objects by increasing or decreasing amounts of light, heat, and sound energy such as how the color of an object appears different in dimmer light or how heat melts butter.
Unit 6: Parts Working Together In this unit, students investigate the idea that individual parts must be combined in order to have a functioning system.	5 45-minute lessons Suggested Pacing: Oct. 25-29 Extend Review Assess Reteach 5 days Nov. 1-5	Unit 6: Parts Working Together (5 lessons) SCI.2.5D Combine materials that when put together can do things that they cannot do by themselves such as building a tower or a bridge and justify the selection of those materials based on their physical properties. PS SCI.2.3B Make predictions based on observable patterns.
Cycle 2 Cumulative Project Students will use the content learned during this cycle to engage in Project-Based Learning.	5 45-minute lessons Suggested Pacing: Nov. 8-12	Cycle 2 Cumulative Project: Make It Work!

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:
Unit 7: Weather and Seasons In this unit, students observe and record weather conditions and seasonal changes.	20 45-minute lessons Part 1 Suggested Pacing: Nov. 15-29 <i>Thanksgiving Break</i> Nov. 22-26 Part 2 Suggested Pacing: Nov. 30 – Dec. 7 Part 3 Suggested Pacing: Dec. 8-17 <i>Enrichment Opportunities</i> Dec. 20-21 <i>Winter Break</i> Dec. 20-31 Extend Review Assess Reteach 6 days Jan. 3-10	Part 1: Measuring Weather (6 lessons) SCI.2.8A Measure, record, and graph weather information, including temperature, wind conditions, precipitation, and cloud coverage, in order to identify patterns in the data.
		Part 2: Patterns in Weather (6 lessons) SCI.2.8A Measure, record, and graph weather information, including temperature, wind conditions, precipitation, and cloud coverage, in order to identify patterns in the data.
		Part 3: Know Your Seasons (8 lessons) SCI.2.8B Identify the importance of weather and seasonal information to make choices in clothing, activities, and transportation.
	District Formative Assessment DFA 2 Suggested Window: Jan. 6-10 See Outline for TEKS Details	

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	Nov. 15, 2021 - Jan. 14, 2022	
Unit	Number of Lessons	Texas Essential Knowledge and Skills/Student Expectations (TEKS/SEs) The student will:
Cycle 3 Cumulative Project Students will use the content learned during this cycle to engage in Project-Based Learning.	4 45-minute lessons Suggested Pacing: Jan. 11-14 <i>MLK Jr. Day</i> <i>Jan. 17</i> <i>Teacher Prep Day</i> <i>(no students)</i> <i>Jan. 18</i>	<u>Cycle 3 Cumulative Project: Planning for a Vacation</u>

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:
Unit 8: Natural Resources In this unit, students observe and describe the properties of natural resources and understand that some resources are manmade. Students also demonstrate how to use, conserve, and dispose of natural resources.	11 45-minute lessons Part 1 Suggested Pacing: Jan. 19-20 Part 2 Suggested Pacing: Jan. 21-25 Part 3 Suggested Pacing: Jan. 26-28 Part 4 Suggested Pacing: Jan. 31 – Feb. 2	Part 1: Properties of Rocks (2 lessons) SCI.2.7A Observe, describe, and compare rocks by size, texture, and color Part 2: Properties of Water (3 lessons) SCI.2.7B Identify and compare the properties of natural sources of freshwater and saltwater. Part 3: Natural and Manmade Resources (3 lessons) SCI.2.7C Distinguish between natural and manmade resources. Part 4: Conservation of Resources (3 lessons) PS SCI.2.1B Identify and demonstrate how to use, conserve, and dispose of natural resources and materials such as conserving water and reuse or recycling of paper, plastic, and metal. PS SCI.2.3C Identify what a scientist is and explore what different scientists do
	8 45-minute lessons Suggested Pacing: Feb. 3-14 Extend Review Assess Reteach 5 days Feb. 15-22 <i>Teacher Service Day / Presidents' Day (no students)</i> Feb. 21	Unit 9: Objects in the Sky (8 lessons) SCI.2.8C Observe, describe, and record patterns of objects in the sky, including the appearance of the Moon. PS SCI.2.3C Identify what a scientist is and explore what different scientists do.

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	Jan. 19 - Feb. 25, 2022	
Unit	Number of Lessons	Texas Essential Knowledge and Skills/Student Expectations (TEKS/SEs) The student will:
	<p>District Formative Assessment DFA 3</p> <p>Suggested Window: Feb. 17-22</p> <p>See Outline for TEKS Details</p>	
<p>Cycle 4 Cumulative Project</p> <p>Students will use the content learned during this cycle to engage in Project-Based Learning.</p>	<p>3</p> <p>45-minute lessons</p> <p>Suggested Pacing: Feb. 23-25</p>	<p><u>Cycle 4 Cumulative Project: Using Our Resources</u></p>

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:
<p>Unit 10: Physical Characteristics and Needs of Plants</p> <p>In this unit, students observe, record, and compare how the physical characteristics of plants help them meet their basic needs.</p>	<p>10 45-minute lessons</p> <p>Suggested Pacing: Feb. 28 – Mar. 11</p> <p><i>Enrichment Opportunities</i> Mar. 14-16</p> <p><i>Spring Break</i> Mar. 14-18</p>	<p>Unit 10: Physical Characteristics and Needs of Plants (10 lessons)</p> <p>SCI.2.9A Identify the basic needs of plants and animals.</p> <p>SCI.2.10B Observe, record, and compare how the physical characteristics of plants help them meet their basic needs.</p>
<p>Unit 11: Physical Characteristics, Needs, and Behaviors of Animals</p> <p>In this unit, students investigate how the physical characteristics and behaviors of animals help them meet their basic needs.</p>	<p>11 45-minute lessons</p> <p>Suggested Pacing: Mar. 21 – Apr. 5</p> <p><i>Chávez-Huerta Day</i> Mar. 28</p> <p>Extend Review Assess Reteach 7 days Apr. 6-14</p> <p><i>Spring Holiday</i> Apr. 15</p> <p>District Formative Assessment DFA 4 Suggested Window: Apr. 12-14</p> <p>See Outline for TEKS Details</p>	<p>Unit 11: Physical Characteristics, Needs, and Behaviors of Animals (11 lessons)</p> <p>SCI.2.9A Identify the basic needs of plants and animals.</p> <p>SCI.2.10A Observe, record, and compare how the physical characteristics and behaviors of animals help them meet their basic needs.</p>

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	Feb. 28 - Apr. 22, 2022	
Unit	Number of Lessons	Texas Essential Knowledge and Skills/Student Expectations (TEKS/SEs) The student will:
Cycle 5 Cumulative Project Students will use the content learned during this cycle to engage in Project-Based Learning.	5 45-minute lessons Suggested Pacing: Apr. 18-22	<u>Cycle 5 Cumulative Project: My Backyard Safari</u>

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:
Unit 12: Life Cycle of an Insect In this unit, students investigate the life cycles of insects.	5 45-minute lessons Suggested Pacing: Apr. 25-29	Unit 12: Life Cycle of an Insect (5 lessons) SCI.2.10C Investigate and record some of the unique stages that insects such as grasshoppers and butterflies undergo during their life cycle.
Unit 13: Interdependency In this unit, students investigate how organisms depend on other living organisms and nonliving objects and their environment. Students also identify environmental factors that affect an organism's growth and behavior.	10 45-minute lessons Part 1 Suggested Pacing: May 2-6 Part 2 Suggested Pacing: May 9-13 District Pre-Approved Assessment Suggested Window: May 2-27 See Blueprint for TEKS Details	Part 1: Food Chains (5 lessons) SCI.2.9C Compare the ways living organisms depend on each other and on their environments, such as through food chains. PS SCI.2.3A Identify and explain a problem and propose a task and solution to the problem.
		Part 2: Environmental Effects (5 lessons) SCI.2.9B Identify factors in the environment, including temperature and precipitation, that affect growth and behavior such as migration, hibernation, and dormancy of living things. PS SCI.2.3C Identify what a scientist is and explore what different scientists do.
Unit 14: Designing Investigations In this unit, students plan and conduct descriptive investigations.	6 45-minute lessons Suggested Pacing: May 16-23 Extend Review Assess Reteach 5 days May 24-31 <i>Memorial Day</i> <i>May 30</i>	Unit 14: Designing Investigations (6 lessons) PS SCI.2.2B Plan and conduct descriptive investigations PS SCI.2.2E Communicate observations and justify explanations using student-generated data from simple descriptive investigations. PS SCI.3.2A Plan and implement descriptive investigations, including asking and answering questions, making inferences, and selecting and using equipment or technology needed to solve a specific problem in the natural world.

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	Apr. 25 - June 7, 2022	
Unit	Number of Lessons	Texas Essential Knowledge and Skills/Student Expectations (TEKS/SEs) The student will:
Cycle 6 Cumulative Project Students will use the content learned during this cycle to engage in Project-Based Learning.	5 45-minute lessons Suggested Pacing: Jun. 1-7 <i>Teacher Prep Day</i> <i>(no students)</i> <i>June 8</i>	Cycle 6 Cumulative Project: My Happy Forest