<table>
<thead>
<tr>
<th>Cycle 1</th>
<th>28 Days</th>
<th>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.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unit</td>
<td>Number of Lessons</td>
<td>Texas Essential Knowledge and Skills/Student Expectations (TEKS/SEs)</td>
</tr>
</tbody>
</table>
| **Unit 1: Setting up for Science** | 2 45-minute lessons | **Part 1: What Scientists Do** (1 lesson)  
SCI.2.3C Identify what a scientist is and explore what different scientists do.  
**Part 2: Safety and Tools** (1 lesson)  
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.  
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** | 6 45-minute lessons | **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.  
SCI.2.2B Plan and conduct descriptive investigations  
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. |
| **Unit 3: Properties of Solids and Liquids** | 5 45-minute lessons | **Unit 3: Properties of Solids and Liquids** (5 lessons)  
SCI.2.5A Classify matter by physical properties, including relative temperature, texture, flexibility, and whether material is a solid or liquid.  
Suggested Pacing: Sept. 18-24  
**Part 1: Properties of Solids** (3 lessons)  
**Part 2: Properties of Liquids** (2 lessons) |

**Notes:**
- Labor Day: Sept. 7
- Part 1: Suggested Pacing: Sept. 8-9
- Part 2: Suggested Pacing: Sept. 10-11
## Cycle 1

<table>
<thead>
<tr>
<th>Unit</th>
<th>Number of Lessons</th>
<th>Texas Essential Knowledge and Skills/Student Expectations (TEKS/SEs)</th>
</tr>
</thead>
</table>
| **Unit 4: Properties and Changes in Matter** | 7 45-minute lessons | **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 1 Suggested Pacing:**  
Sept. 25 | **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.  
Fall Holiday  
Sept. 28 |
|       |                   | **Part 2 Suggested Pacing:**  
Sept. 29 | **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.  
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 3 Suggested Pacing:  
Sept. 30 | **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.  
Part 4 Suggested Pacing:  
Oct. 1-2 |

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.
## Cycle 1

<table>
<thead>
<tr>
<th>Unit</th>
<th>Number of Lessons</th>
<th>Texas Essential Knowledge and Skills/Student Expectations (TEKS/SEs)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Unit 4: Properties and Changes in Matter</strong>  &lt;br&gt;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.</td>
<td><strong>Part 5</strong>  &lt;br&gt;Suggested Pacing:  &lt;br&gt;Oct. 5 - 6  &lt;br&gt;Extend  &lt;br&gt;Review  &lt;br&gt;Assess  &lt;br&gt;Reteach  &lt;br&gt;4 days  &lt;br&gt;Oct. 7 - 12</td>
<td><strong>Part 5: Matter Can Change</strong> (2 lessons)  &lt;br&gt;SCI.2.5C Demonstrate that things can be done to materials such as cutting, folding, sanding, and melting to change their physical properties.  &lt;br&gt;SCI.2.2B Plan and conduct descriptive investigations.  &lt;br&gt;SCI.2.2E Communicate observations and justify explanations using student-generated data from simple descriptive investigations.</td>
</tr>
</tbody>
</table>

### Suggested Pacing:
- **District Formative Assessment DFA 1**  <br>Suggested Window:  <br>Oct. 8-12

### Cycle 1 Cumulative Project: What’s the Matter?

- **4**  <br>45-minute lessons  <br>Suggested Pacing:  <br>Oct. 13-16

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.
<table>
<thead>
<tr>
<th>Cycle 2</th>
<th>29 Days</th>
<th>Oct. 19 – Dec. 4, 2020</th>
<th>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.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Unit</strong></td>
<td><strong>Number of Lessons</strong></td>
<td><strong>Texas Essential Knowledge and Skills/Student Expectations (TEKS/SEs)</strong></td>
<td><strong>The student will:</strong></td>
</tr>
</tbody>
</table>
| **Unit 5:** Effects of Heat, Light, and Sound Energy | 14 | **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.  
**SCI.2.2F** Compare results of investigations with what students and scientists know about the world. |
| Part 1 | 45-minute 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.  
**SCI.2.2F** Compare results of investigations with what students and scientists know about the world. |
| **Part 1** Suggested Pacing: | Oct. 19-23 | **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.  
**SCI.2.2F** Compare results of investigations with what students and scientists know about the world. |
| **Teacher Service Day** | Oct. 21 | **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.  
**SCI.2.2F** Compare results of investigations with what students and scientists know about the world. |
| **Unit 5:** Effects of Heat, Light, and Sound Energy | 5 | **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.  
**SCI.2.3B** Make predictions based on observable patterns. |
| **Part 2** | 45-minute 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. |
| **Part 2** Suggested Pacing: | Oct. 26-30 | **SCI.2.3B** Make predictions based on observable patterns. |
| **Unit 6:** Parts Working Together | 5 | **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. |
| **Part 3** | 45-minute lessons | **SCI.2.3B** Make predictions based on observable patterns. |
| **Part 3** Suggested Pacing: | Nov. 2-6 | **SCI.2.3B** Make predictions based on observable patterns. |
| Thanksgiving Holiday | Nov. 23-27 | **SCI.2.3B** Make predictions based on observable patterns. |
**2020-2021 Scope and Sequence**  
**Science – Grade 2**

**Cycle 2**  
Oct. 19 – Dec. 4, 2020

<table>
<thead>
<tr>
<th>Unit</th>
<th>Number of Lessons</th>
<th>Texas Essential Knowledge and Skills/Student Expectations (TEKS/SEs)</th>
<th>The student will:</th>
</tr>
</thead>
</table>
| 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. 30 – Dec. 4 | **Cycle 2 Cumulative Project: Make It Work!** | |

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.
## Cycle 3

<table>
<thead>
<tr>
<th>Unit</th>
<th>Number of Lessons</th>
<th>Texas Essential Knowledge and Skills/Student Expectations (TEKS/SEs)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Unit 7: Weather and Seasons</strong>&lt;br&gt; In this unit, students observe and record weather conditions and seasonal changes.</td>
<td>18&lt;br&gt;45-minute lessons</td>
<td><strong>Part 1: Measuring Weather</strong> (5 lessons)&lt;br&gt;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.</td>
</tr>
<tr>
<td><strong>Part 1</strong>&lt;br&gt;Suggested Pacing: Dec. 7-11</td>
<td></td>
<td><strong>Part 2: Patterns in Weather</strong> (5 lessons)&lt;br&gt;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.</td>
</tr>
<tr>
<td><strong>Part 2</strong>&lt;br&gt;Suggested Pacing: Dec. 14-18</td>
<td></td>
<td><strong>Part 3: Know Your Seasons</strong> (8 lessons)&lt;br&gt;SCI.2.8B Identify the importance of weather and seasonal information to make choices in clothing, activities, and transportation.</td>
</tr>
<tr>
<td>Winter Break&lt;br&gt;Dec. 21, 2020 – Jan. 1, 2021</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Part 3</strong>&lt;br&gt;Suggested Pacing: Jan. 4-13</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Extend&lt;br&gt;Review&lt;br&gt;Assess&lt;br&gt;Reteach&lt;br&gt;6 days&lt;br&gt;Jan. 14-22</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MLK Jr. Day&lt;br&gt;Jan. 18</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**District Formative Assessment**<br>DFA 2<br>Suggested Window: Jan. 20-22

See Outline for TEKS Details
### Cycle 3

<table>
<thead>
<tr>
<th>Unit</th>
<th>Number of Lessons</th>
<th>Texas Essential Knowledge and Skills/Student Expectations (TEKS/SEs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cycle 3 Cumulative Project</td>
<td>4</td>
<td><strong>Cycle 3 Cumulative Project: Planning for a Vacation</strong></td>
</tr>
<tr>
<td>45-minute lessons</td>
<td></td>
<td>The student will:</td>
</tr>
<tr>
<td><strong>Suggested Pacing:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jan. 25-28</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Teacher Prep Day</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jan. 29</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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.

Cycle 3

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.
### Cycle 4

<table>
<thead>
<tr>
<th>Unit</th>
<th>Number of Lessons</th>
<th>Texas Essential Knowledge and Skills/Student Expectations (TEKS/SEs)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Unit 8: Natural Resources</strong>&lt;br&gt; In this unit, students observe and describe the properties of natural resources and understand that some resources are manmade.</td>
<td>12&lt;br&gt;45-minute lessons</td>
<td><strong>Part 1: Properties of Rocks</strong> (2 lessons)&lt;br&gt;SCI.2.7A Observe, describe, and compare rocks by size, texture, and color&lt;br&gt;&lt;br&gt;<strong>Part 1 Suggested Pacing:</strong>&lt;br&gt;Feb. 1-2&lt;br&gt;<strong>Part 2 Suggested Pacing:</strong>&lt;br&gt;Feb. 3-5&lt;br&gt;<strong>Part 3 Suggested Pacing:</strong>&lt;br&gt;Feb. 8-10&lt;br&gt;<strong>Part 4 Suggested Pacing:</strong>&lt;br&gt;Feb. 11-16</td>
</tr>
<tr>
<td><strong>Unit 9: Objects in the Sky</strong>&lt;br&gt; In this unit, students observe, describe, and record patterns of objects in the sky.</td>
<td>8&lt;br&gt;45-minute lessons</td>
<td><strong>Unit 9: Objects in the Sky</strong> (8 lessons)&lt;br&gt;SCI.2.8C Observe, describe, and record patterns of objects in the sky, including the appearance of the Moon.&lt;br&gt;SCI.2.3C Identify what a scientist is and explore what different scientists do.&lt;br&gt;&lt;br&gt;Suggested Pacing:&lt;br&gt;Feb. 17 – Mar. 1&lt;br&gt;Extend Review&lt;br&gt;Assess Reteach&lt;br&gt;6 days&lt;br&gt;Mar. 2-9</td>
</tr>
</tbody>
</table>
Cycle 4
February 1 – March 12, 2021
29 Days

<table>
<thead>
<tr>
<th>Unit</th>
<th>Number of Lessons</th>
<th>Texas Essential Knowledge and Skills/Student Expectations (TEKS/SEs)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>The student will:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>District Formative Assessment</td>
</tr>
<tr>
<td></td>
<td></td>
<td>DFA 3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Suggested Window: Mar. 5-9</td>
</tr>
<tr>
<td></td>
<td></td>
<td>[See Outline for TEKS Details]</td>
</tr>
</tbody>
</table>

**District Formative Assessment DFA 3**
Suggested Window: Mar. 5-9

See Outline for TEKS Details

---

**Cycle 4 Cumulative Project**
Students will use the content learned during this cycle to engage in Project-Based Learning.

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3 45-minute lessons</td>
</tr>
<tr>
<td></td>
<td>Suggested Pacing: Mar. 10-12</td>
</tr>
<tr>
<td></td>
<td>Spring Break Mar. 15-19</td>
</tr>
</tbody>
</table>

**Cycle 4 Cumulative Project: Using Our Resources**

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.
## Cycle 5

<table>
<thead>
<tr>
<th>Unit</th>
<th>Number of Lessons</th>
<th>Texas Essential Knowledge and Skills/Student Expectations (TEKS/SEs)</th>
</tr>
</thead>
</table>
| **Unit 10:** Physical Characteristics and Needs of Plants  
In this unit, students observe, record, and compare how the physical characteristics of plants help them meet their basic needs. | 10  
45-minute lessons | **Unit 10: Physical Characteristics and Needs of Plants** (10 lessons)  
SCI.2.9A Identify the basic needs of plants and animals.  
SCI.2.10A Observe, record, and compare how the physical characteristics of plants help them meet their basic needs. |
| **Suggested Pacing:**  
Mar. 22 – Apr. 6  
Chavez/Huerta Day  
Mar. 29  
Spring Holiday  
Apr. 2 | | |
| **Unit 11:** Physical Characteristics, Needs, and Behaviors of Animals  
In this unit, students investigate how the physical characteristics and behaviors of animals help them meet their basic needs. | 9  
45-minute lessons | **Unit 11: Physical Characteristics, Needs, and Behaviors of Animals** (9 lessons)  
SCI.2.9A Identify the basic needs of plants and animals.  
SCI.2.10A Observe, record, and compare how the physical characteristics and behaviors of animals help them meet their basic needs. |
| **Suggested Pacing:**  
Apr. 7-19  
Extend Review  
Assess Reteach  
6 days  
Apr. 20-27 | | |
## Cycle 5

<table>
<thead>
<tr>
<th>Unit</th>
<th>Number of Lessons</th>
<th>Texas Essential Knowledge and Skills/Student Expectations (TEKS/SEs)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cycle 5 Cumulative Project</strong></td>
<td>3 45-minute lessons</td>
<td>The student will: Cycle 5 Cumulative Project: My Backyard Safari</td>
</tr>
</tbody>
</table>

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.

**Mar. 22 – Apr. 30, 2021**

- **28 Days**
  - Mar. 22 – Apr. 30, 2021
- **Complete instructional planning information and support are in the HISD Curriculum documents.**
| Cycle 6 | 29 Days  
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>May 3 – June 11, 2021</td>
<td>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.</td>
</tr>
<tr>
<td><strong>Unit</strong></td>
<td><strong>Number of Lessons</strong></td>
</tr>
</tbody>
</table>
| **Unit 12:** Life Cycle of an Insect | 5 | **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.  
**Suggested Pacing:**  
May 3-7 |
| In this unit, students investigate the life cycles of insects. | **45-minute lessons** |  |
| **Unit 13:** Interdependency | 10 | **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.  
SCI.2.3A Identify and explain a problem and propose a task and solution to the problem.  
**Suggested Pacing:**  
May 10-14  
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.  
SCI.2.3A Identify and explain a problem and propose a task and solution to the problem.  
**Suggested Pacing:**  
May 10-14  
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.  
SCI.2.3C Identify what a scientist is and explore what different scientists do.  
**Suggested Pacing:**  
May 17-21  
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.  
SCI.2.3A Identify and explain a problem and propose a task and solution to the problem.  
**Suggested Pacing:**  
May 10-14  
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.  
SCI.2.3C Identify what a scientist is and explore what different scientists do.  
**Suggested Pacing:**  
May 17-21 |
| 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 organism’s growth and behavior. | **45-minute lessons** |  |
| **Part 1:** Food Chains | 5 |  |
| **Part 2:** Environmental Effects | 5 |  |
| **District PreApproved Assessment** |  |
| **Suggested Window:**  
May 24 – Jun. 4  
**See Blueprint for TEKS Details** |  |
| **Unit 14:** Designing Investigations | 5 | **Unit 14: Designing Investigations** (5 lessons)  
SCI.2.2B Plan and conduct descriptive investigations  
SCI.2.2E Communicate observations and justify explanations using student-generated data from simple descriptive investigations.  
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.  
**Suggested Pacing:**  
May 24-28  
**Extend Review Assess Reteach**  
4 days June 1-4 |  
**Suggested Pacing:**  
May 24-28  
**Extend Review Assess Reteach**  
4 days June 1-4 |
### Cycle 6
**29 Days**  
**May 3 – June 11, 2021**

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.

<table>
<thead>
<tr>
<th>Unit</th>
<th>Number of Lessons</th>
<th>Texas Essential Knowledge and Skills/Student Expectations (TEKS/SEs)</th>
</tr>
</thead>
</table>
| **Cycle 6 Cumulative Project**  
Students will use the content learned during this cycle to engage in Project-Based Learning. | 5  
45-minute lessons | **Cycle 6 Cumulative Project: My Happy Forest** |

**Suggested Pacing:**  
June 7-11