### Quarter 1

**Unifying Concept**

Students will understand how geochemical cycles interact and how to ask scientific questions.

<table>
<thead>
<tr>
<th>Highly Leveraged¹</th>
<th>Supporting²</th>
<th>Constant³</th>
</tr>
</thead>
<tbody>
<tr>
<td>HS.S5.C1</td>
<td>HS.S6.C1</td>
<td>HS.S1.C1, C2, C3, C4</td>
</tr>
</tbody>
</table>

**Reading Focus**

Information/Literature

**Writing Focus**

Narrative, Informative / Explanatory

**Crosscutting Concepts**

Patterns
- Cause & Effect
- Structure & Function
- Stability & Change
- Systems & System Models
- Scale, Proportion, & Quantity
- Energy & Matter

### Quarter 2

**Unifying Concept**

Students will understand how the Earth has evolved and changed over time as well as the evidence for our basis of knowledge.

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<th>Constant³</th>
</tr>
</thead>
<tbody>
<tr>
<td>HS.S6.C1, C2, C3</td>
<td>HS.S5.C3</td>
<td>HS.S1.C1, C2, C3, C4</td>
</tr>
</tbody>
</table>

**Reading Focus**

Informational/Literature

**Writing Focus**

Narrative, Informative / Explanatory

**Crosscutting Concepts**

Patterns
- Cause & Effect
- Structure & Function
- Stability & Change
- Systems & System Models
- Scale, Proportion, & Quantity
- Energy & Matter

### Quarter 3

**Unifying Concept**

Students will understand how weather and climate are the result of Earth maintaining homeostasis.

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**Reading Focus**

Informational/Literature

**Writing Focus**

Narrative, Informative / Explanatory

**Crosscutting Concepts**

Patterns
- Cause & Effect
- Structure & Function
- Stability & Change
- Systems & System Models
- Scale, Proportion, & Quantity

### Quarter 4

**Unifying Concept**

Students will understand how the universe and its components formed and evolved over time.

<table>
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**Reading Focus**

Informational/Literature

**Writing Focus**

Narrative, Informative / Explanatory

**Crosscutting Concepts**

Patterns
- Cause & Effect
- Structure & Function
- Stability & Change
- Systems & System Models
- Scale, Proportion, & Quantity

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Office of Curriculum, Instruction, and Professional Development

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Energy & Matter

Science & Engineering Practices

- Ask questions and define problems
- Develop and use models
- Plan and carry out investigations
- Analyze and interpret data
- Use mathematics and computational thinking
- Construct explanations and design solutions
- Engage in argument from evidence
- Obtain, evaluate, and communicate information

1**Highly-Leveraged Standards** are essential for students to learn because they have endurance (knowledge and skills relevant throughout a student’s lifetime); leverage (knowledge and skills used across multiple content areas); and essentiality (knowledge and skills necessary for success in future courses or grade levels). This definition for Highly-Leveraged Standards was adapted from the “power standard” definition on the website of the Millis Public Schools, K-12, Massachusetts, USA, 2016.

2**Supporting Standards** are emphasized during the quarter as they are integral to achieve mastery of the Highly Leveraged Standards. Mastery of these standards are measured using classroom assessments.

3**Constant Standards** are repeatedly addressed to reinforce grade-level mastery.