## 5th Grade NGSS Integrated Course Sequence

<table>
<thead>
<tr>
<th>DCI</th>
<th>Motion and Stability</th>
<th>Earth's Place in the Universe</th>
<th>Matter</th>
<th>Energy in an Ecosystem</th>
<th>Earth's Spheres</th>
</tr>
</thead>
<tbody>
<tr>
<td>3-4 weeks</td>
<td>6 - 8 weeks</td>
<td>6 - 8 weeks</td>
<td>1 week</td>
<td>4 weeks</td>
<td></td>
</tr>
</tbody>
</table>

### Standards
- **S-PS2:** Develop a model to describe that matter is made of particles too small to be seen.
- **S-PS3:** Represent data in graphical display to reveal patterns of daily changes in length and direction of shadows, day and night, and the seasonal appearance of some stars in the right sky.
- **S-PS5:** Conduct an investigation to determine whether the mixing of two or more substances results in new substances.
- **S-LS1:** Support an argument that plants get the materials they need for growth from air and water.
- **S-PS3:** Explain how changes in Earth's properties and the properties of its different spheres influence the distribution of water on Earth.
- **S-ESS2:** Illustrate how deforestation has affected the Earth's atmosphere and climate.

### Mosa Mack Units
- **Gravity**
- **Scale in the Solar System**
- **Sun-Earth System**
- **Matter and its Interactions**
- **Food Webs**
- **Earth's Spheres**

### Extension Units
- **Scientific Method**

### Engineering Design Standards
1. **Define:** Identify and define a simple design problem reflecting a need or want that includes specified criteria and constraints on materials, time, or cost.
2. **Generate:** Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem.
3. **Test:** Plan and carry out fair tests in which variables are controlled and failure points are considered to identify aspects of a model or prototype that can be improved.

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**MOSA MACK SCIENCE**

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