

## Energy and Climate Unit Overview

<b>Part 1: Background Info</b>	<b>Vocabulary</b>	<b>I Can...</b>	<b>Self-Assessment</b>
<p>Energy Transformation</p> <ul style="list-style-type: none"> <li>● What is Energy?</li> <li>● What forms does energy take?</li> <li>● How is energy changed from one form to another?</li> <li>● How does energy move from place to place?</li> <li>● What is Conservation of Energy?</li> </ul>	<p>Energy</p> <p>Kinetic Energy</p> <p>Potential Energy</p> <p>Thermal Energy</p> <p>Radiant Energy</p> <p>Energy Transformation</p> <p>Conservation of Energy</p> <p>Energy Transfer</p> <p>Conduction</p> <p>Convection</p> <p>Radiation</p>	<p>1. I can describe Energy.</p> <p>2. I can describe the 2 forms that energy takes.</p> <p>3. I can describe how energy can change from one form to another.</p> <p>4. I can describe how energy moves or is transferred.</p> <p>5. I can describe Conservation of Energy and show examples.</p> <p>6. I can describe each of Earth's 4 spheres.</p> <p>7. I can describe how the 4 spheres interact.</p>	<p>1. 1 2 3 4</p> <p>2. 1 2 3 4</p> <p>3. 1 2 3 4</p> <p>4. 1 2 3 4</p> <p>5. 1 2 3 4</p> <p>6. 1 2 3 4</p> <p>7. 1 2 3 4</p>
<p>Earth's Spheres</p> <ul style="list-style-type: none"> <li>● What are the 4 spheres?</li> <li>● How do the 4 spheres interact?</li> </ul>	<p>Atmosphere</p> <p>Biosphere</p> <p>Geosphere</p> <p>Hydrosphere</p>		

Part 2: Energy Entering Earth's Systems	Vocabulary	I Can...	Self-Assessment
<p>Amount of Insolation</p> <ul style="list-style-type: none"> <li>● What is Insolation?</li> <li>● How does latitude determine the amount of insolation a location receives?</li> <li>● How does Earth's position in space affect the insolation it receives?</li> <li>● How does the angle of sun affect the amount of insolation a location receives?</li> <li>● How does length of day/night affect the amount of insolation a location receives?</li> </ul>	<p><b>Insolation</b></p> <p><b>Latitude</b></p> <p><b>Orbit</b></p> <p><b>Axis</b></p> <p><b>Tilt</b></p> <p><b>Angle</b></p> <p><b>Daylight</b></p>	<p>1. I can describe insolation.</p> <p>2. I can describe latitude.</p> <p>3. I can describe how latitude affects the amount of insolation a place receives.</p> <p>4. I can describe the Earth's orbit.</p> <p>5. I can describe the tilt of the Earth.</p> <p>6. I can describe how tilt and orbit shape affects the amount of insolation a place receives.</p>	<p>1. 1 2 3 4</p> <p>2. 1 2 3 4</p> <p>3. 1 2 3 4</p> <p>4. 1 2 3 4</p> <p>5. 1 2 3 4</p> <p>6. 1 2 3 4</p>
<p>EM Spectrum</p> <ul style="list-style-type: none"> <li>● What is the EM Spectrum?</li> <li>● What are the layers of the atmosphere?</li> <li>● What are some components of the atmosphere?</li> <li>● What spectrum is blocked by the atmosphere?</li> <li>● What spectrum is allowed to pass through the atmosphere?</li> </ul>	<p><b>Electromagnetic</b></p> <p><b>Radiation</b></p> <p><b>EM Spectrum</b></p> <p><b>Atmosphere</b></p> <p><b>Troposphere</b></p> <p><b>Stratosphere</b></p> <p><b>Mesosphere</b></p> <p><b>Thermosphere</b></p> <p><b>Exosphere</b></p> <p><b>Components</b></p>	<p>7. I can describe the EM Spectrum.</p> <p>8. I can describe the layers of the atmosphere.</p> <p>9. I can describe some components of the atmosphere.</p> <p>10. I can describe the spectrum that is blocked by the atmosphere.</p> <p>11. I can describe the spectrum that is allowed to pass through the atmosphere.</p>	<p>7. 1 2 3 4</p> <p>8. 1 2 3 4</p> <p>9. 1 2 3 4</p> <p>10. 1 2 3 4</p> <p>11. 1 2 3 4</p>