

UNIT	<b>Science: Earth and Space Science</b>	
<p><b>What do we want them to learn?</b></p>	<p><b>Standards:</b></p> <p><b>6.2.1</b> Describe and model how the position, size and relative motions of the earth, moon and sun cause day and night, solar and lunar eclipses, and phases of the moon.</p> <p><b>6.2.2</b> Recognize that gravity is a force that keeps celestial bodies in regular and predictable motion, holds objects to earth's surface, and is responsible for tides.</p> <p><b>6.2.3</b> Understand that the sun, an average star where nuclear reactions occur, is the central and largest body in the solar system.</p>	
<p><b>How will we know if they know?</b></p>	<p><b>Formative Assessments:</b></p> <p>Lab activities</p>	<p><b>Post Assessment:</b></p> <p>Chapter test</p>
<p><b>What will we do if they don't?</b></p>	<p>1) Complete another lab or activity with support from a teacher or aide.</p>	
<p><b>What will we do if they do?</b></p>	<p>1) Create own lab or activity to extend the learning.</p> <p>2) Research addition information to address unanswered questions.</p>	
<p><b>Resources and Materials</b></p>	<p>Holt Science and Technology textbook  Tide partner worksheet  String, paperclips, name tags (Moon, Earth, Sun)  Science notebooks, pencils, and colored pencils  Final Tide worksheet  Oreo cookie lab activity (with materials)  Emily Moon Phases worksheet  Moon displays  Moon video: <a href="http://video.nationalgeographic.com/video/science/space-sci/exploration/moon-101-sci/">http://video.nationalgeographic.com/video/science/space-sci/exploration/moon-101-sci/</a>  Moon description: <a href="http://www.ducksters.com/science/phases_of_the_moon.php">http://www.ducksters.com/science/phases_of_the_moon.php</a>  Moon figurines  Earth figurines  Floor lamp</p>	
<p><b>Launch Unit</b></p>	<p>Students will read selected chapters from their Holt Science textbook during their science book during our scheduled partner reading time. In addition, they will answer various questions on worksheets, read lunar articles, and watch video lessons to prepare for lessons.</p>	

<b>WEEK</b> 1	<b>WEEKLY QUESTION:</b> How does the position of Earth in relation to the moon and the sun create different kinds of tides?	
<b>DAY</b> 1	<b>READING (D5)</b>  Read to Someone: Ch. 5, Section 5 Work on Tide worksheet	<b>VOCABULARY/NOTES</b>  Tides, spring tides, neap tides, high tide, and low tide
	<b>LAB/ACTIVITY: Tides Demonstration</b>  <b>MOON AND TIDE DEMONSTRATION:</b> <ul style="list-style-type: none"> <li>○ Using students as models, the concept of how the moon affects the tides will be demonstrated</li> <li>○ Students will record the conversation in their Science journals by drawing and labeling a diagram detailing neap tides, spring tides, high tides, and low tides.</li> <li>○ Students will refer back to the worksheet used during D5 and complete the backside independently</li> </ul>	
<b>NOTES:</b>		

<b>WEEK</b> 2	<b>WEEKLY QUESTION:</b> What causes the phases of Earth's moon? What is different between a moon and a planet?	
<b>DAY</b> 2	<b>READING (D5)</b>  No reading for this activity	<b>VOCABULARY/NOTES</b>  The eight phases of the moon Sun Moon
	<b>LAB/ACTIVITY: Moon Phases Ordering</b>  <b>LAUNCH:</b> Discuss how when you see the moon in the sky at night it is often different shapes (sometimes sizes). These are what we call moon phases.  *Include what the SUN is, compared to the moon  <b>MOON PHASES DEMONSTRATION:</b> <ul style="list-style-type: none"> <li>○ Paraphrase the Background Information on the lesson plan</li> <li>○ Using moon diagrams, discuss and order the phases of the moon with students</li> <li>○ Students record the moon phases in their science journals once complete</li> </ul>	
<b>NOTES</b>		

<b>WEEK</b> 3	<b>WEEKLY QUESTION:</b> What are the names to the phases of the moon? What causes the lunar cycle we observe from earth?	
<b>DAY</b> 3	<b>READING (D5)</b>  Read the Moon description website and watch the National Geographic video on the moon.	<b>VOCABULARY/NOTES</b>  Phases of the Moon Lunar cycle
	<b>LAB/ACTIVITY: Oreo Lab</b>  <b>LAUNCH:</b> Review how when you see the moon in the sky at night it is often different shapes (sometimes sizes). These are what we call moon phases.  <b>MOON PHASES DEMONSTRATION:</b> <ul style="list-style-type: none"> <li>○ The teacher will give a brief demonstration of how the moon travels around the earth, as the sun reflects its surface, creating the phases of the moon <ul style="list-style-type: none"> <li>○ *The rotation of the Moon around the Earth is called the Lunar Cycle</li> </ul> </li> <li>○ Students will work with their table mates to create an Oreo moon phases display (each team gets 4 cookies) <ul style="list-style-type: none"> <li>▪ Glue Oreos and write the names of each phase on a paper plate (pictures will be taken of each groups' display for assessment)</li> </ul> </li> </ul>	
<b>NOTES:</b>		

<b>WEEK</b> 4	<b>WEEKLY QUESTION:</b> What are solar and lunar eclipses? What are the differences between the two? How often do they occur? What causes day and night? How does light reflect off the moon?	
<b>DAY</b> 4	<b>READING (D5)</b>  No reading for this activity	<b>VOCABULARY/NOTES</b>  Day and Night
	<b>LAB/ACTIVITY: Moon Phases Light Demonstration and Activity</b>	
<b>NOTES:</b>		

<b>DAY</b> <b>5</b>	<b>READING (D5)</b>  No reading for this activity	<b>VOCABULARY/NOTES</b>  Solar Eclipse Lunar Eclipse
<p><b>LAB/ACTIVITY: Solar and Lunar Eclipses</b></p> <p><b>LAUNCH:</b> Explain what an eclipse is and how there are multiple types of eclipses. Have students share what they learned from the readings and video during D5. For this activity students will only be learning about lunar and solar eclipses.</p> <p><b>DEMONSTRATION:</b> Explain each eclipse individually, starting with the solar eclipse. As the demonstration is happening, students will take notes in their science journals. Once the demonstration is complete, students will draw a picture of an eclipse in their journals.</p>		
<b>NOTES:</b>		

<b>DAY</b> <b>6</b>	<b>Summative assessment</b>
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