

Science/Unit Map – Grade 4 – Trimester 2

Trimester Focus: Sun, Moon, and Earth & Properties and Changes of Matter

Big Ideas:

- The moon and the Earth move in a predictable pattern around the sun.
- The predictable patterns of the Earth and moon define a day, year, and moon phases.
- The sun appears to move in a predictable pattern across the sky.
- All objects have physical properties that can be measured.
- Matter exists in different states.
- Matter can change from one state to another by heating and cooling.

GLCEs	Vocabulary	Resources (See Curriculum Calendar for Details)	Assessments
<p>E.ST.04.11 Identify the sun and moon as common objects in the sky.</p> <p>E.ST.04.12 Compare and contrast the characteristics of the sun, moon, and Earth, including relative distances and abilities to support life.</p> <p>E.ST.04.21 Describe the orbit of the Earth around the sun as it defines a year.</p> <p>E.ST.04.22 Explain that the spin of the Earth creates day and night.</p> <p>E.ST.04.23 Describe the motion of the moon around the Earth.</p> <p>E.ST.04.24 Explain how the visible shape of the moon follows a predictable cycle, which takes approximately a month.</p> <p>E.ST.04.25 Describe the apparent movement of the sun and moon across the sky through day/night and the seasons.</p> <hr/> <p>P.PM.04.16 Measure the weight (spring scale) and mass (balances) in grams or kilograms of objects.</p> <p>P.PM.04.17 Measure the volume of liquids in milliliters and liters.</p> <p>P.PM.04.23 Compare and contrast the states (solid, liquid, and gas) of matter.</p> <p>P.CM.04.11 Explain how matter can change from one state (solid, liquid, and gas) to another by heating and cooling.</p>	<p>Earth sun moon star observe reflect ability to support life produce light breathable atmosphere revolution orbit rotation Earth's axis phases of the moon day night cycle seasons year natural satellite relative distance capable visible shape predictable cycle apparent movement</p> <hr/> <p>weight spring scale grams kilograms balance volume liter (L) milliliter (mL) matter states of matter solid liquid gas definite compare contrast mass</p>	<p>Textbook: National Geographic - Earth Science</p> <p>Chapter 1 – Skip Lesson 1 (Earth and Moon)</p> <p>Textbook: National Geographic -Physical Science</p> <p>Chapter 1 – All Lessons (Properties of Matter) Chapter 2 – Lessons 1,2,3, & 9 (Physical and Chemical Changes)</p> <p>Inquiry book: See Inquiry Book for Snap, Explore, Directed, Guided, and Open Investigations</p>	<p><u>Formative Assessment Examples</u> The formative assessment is the information that you collect as you complete the activities. These activities should drive instruction.</p> <ul style="list-style-type: none"> • Organize facts about the sun, moon, and Earth on a chart. This could be an on going KWL chart for the unit. • Draw diagrams and pictures to show understanding of the terms rotation, revolution, day, night, year, orbit, and phases of the moon. <hr/> <p><u>Formative Assessment Examples</u></p> <ul style="list-style-type: none"> • Check the results of the weight, mass, and volume measurements. Have students compare their results with each other. <p><u>Summative Assessment Examples</u></p> <ul style="list-style-type: none"> • Explain and/or demonstrate the difference between the words rotation and revolution. • Put pictures of phases of the moon in the correct order. • Create a model of the Earth, sun, and moon that has labels showing: rotation and revolution of the Earth and moon, day and night, a year, and the relative sizes of the Earth, sun, and moon. <hr/> <p><u>Summative Assessment Examples</u></p> <ul style="list-style-type: none"> • Students will find the weight, mass, and volume of objects not yet measured. • Create a concept map that shows properties and states of matter.

