

Science Unit Map – Grade 5 – Trimester 1

Trimester Focus:

Position & Motion of Objects in the sky

Big Ideas:

The sun is the central and largest body in the solar system.

- The sun’s warming of the Earth and tilt of the Earth on its axis have an important connection to the seasons.
- Earth’s motion is the basis for measuring time.
- Objects in the sky move in regular and predictable patterns around the Sun.
- The sun, stars and constellations appear to move in predictable patterns across the sky.
- Gravity is the force that keeps the planets in orbit around the sun and controls motion in the solar system.

GLCEs	Vocabulary	Resources (See Curriculum Calendar for Details)	Assessments
<p><i>Design a model of the solar system</i></p> <p><i>Demonstrate and explain seasons using a model</i></p> <p><i>Explain how revolution and rotation relate to time</i></p> <p><i>Motion of planets, orbits and rotations</i></p> <p><i>Describe and diagram phases of the moon</i></p> <p><i>Explain the apparent motion of stars across the sky</i></p> <p><i>Explain lunar and solar eclipses</i></p> <p><i>Explain and diagram tides and their causes</i></p> <p>*See inquiry and reflection GLCEs</p>	<p>seasons tilt axis revolution rotation solar system planet dwarf planet asteroids comets gravity gravitational pull phases stars constellations lunar solar eclipse tides</p>	<p><u>Textbook:</u></p> <ul style="list-style-type: none"> • National Geographic Earth Science Chapters 1 & 2 <p><u>Suggested Trade Books:</u></p> <ul style="list-style-type: none"> • The Four Seasons by Annie Jones • Weather and Climate by Barbara • Complete book of Seasons by Sally Tagholm • America in Space by Steven Dick • Our Solar System by Seymour Simon • Don’t Know Much About the Solar System by Kenneth D. Davis and Pedro Martin • Earth, Moon, and Sun by Peter Riley • Will the Sun Ever Burn Out by Rosalind Mist <p><u>Websites, Video Streaming, & Smart Board Activities:</u></p> <ul style="list-style-type: none"> • myNGconnect.com • See grade level resource packet <p><u>Grade Level Resource Packet:</u></p> <ul style="list-style-type: none"> • See unit Position & Motion of Objects in the Sky 	<p><u>Formative Assessment:</u></p> <ul style="list-style-type: none"> • Write vocabulary words and illustrations on cards with definitions on the back • Record observations, data and conclusions in student journals • Apply concepts of scale to an Earth-moon model. • Demonstrate understanding through illustrations and models of the position of objects in the solar system. • Create moon journals and illustrations of phases of the moon. • Display models or demonstrations of eclipses and tides. <p><u>Summative Assessment:</u></p> <ul style="list-style-type: none"> • Write an essay to explain the reason for seasons based on evidence • Create a model that explains the reason for seasons • Create a story book for younger students that explains the seasons • Draw a diagram of the solar system which includes the correct position of planets, dwarf planets, comets, and asteroids. • Explain and illustrate rotation and revolution of planet and moons. • Write a paragraph explaining how moon phases occur. • Demonstrate a lunar and a solar eclipse with illustrations or models. • Draw a diagram and explain how the gravitational pull of the moon causes ocean tides. • Explain the difference between the apparent and the actual motion of the sun and stars across the sky.

