

Unit Description	Table of Contents
<p>During this unit students will make scientific connections that are out of this world! Students will learn about Earth’s cycle of day and night. They will also use visual arts and theatre to explore why seasons exist and how the tilt of Earth’s axis affects them. Also in this unit, the phases of the moon will be explored along with their sequential order. Students will immerse themselves in sketching and designing a 3D stabile. We will also observe how technology allows scientists to observe and study distant objects in the sky.</p>	<p>Documenting Phases of the Moon Stabile Model of Earth, Sun and Moon Seasons on Stage!</p>

UNIT ESSENTIAL QUESTION

How do the Earth and its Moon move?
What can we see in the sky?

CROSS-CUTTING INTERDISCIPLINARY CONCEPT

Cycles
Cause and Effect
Relationships

REAL WORLD CONTEXT

Students must be able to recognize and understand how the tilt in the Earth’s axis affects seasonal changes throughout the year. This concept helps us understand why daytime and nighttime exist as well as the passage of time and the four seasons over a course of a 365-day year. Students also gain a firmer understanding of the solar system and our proximity to the sun and the other planets.

STANDARDS

Curriculum Standards	Arts Standards
<p>S4E2 Students will model the position and motion of the earth in the solar system. a. Explain the day/night cycle of Earth using a model. b. Explain the sequence of the phases of the moon. c. Demonstrate the revolution of the earth around the earth’s tilt to explain seasonal changes.</p> <p>ELAGSE4RL5 Explain major differences between poems, drama, and prose, and refer to the structural elements of poems (e.g., verse, rhythm, meter) and drama (e.g., casts of characters, settings, descriptions, dialogue, stage directions) when writing or speaking about a text.</p>	<p>D4CR1 Demonstrates and understanding of creative and choreographic principles, processes, and structures.</p> <p>D5FD.3 Recognizes the anatomical and kinesiology concepts in movement. d. Understands, explores, and sequences clear movements of body parts, body halves, and the body in planes in space.</p> <p>D5FD.4 Understands and applies music concepts to dance.</p> <p>D5CR.2 Demonstrates an understanding dance as a way to communicate meaning.</p>

<p>ELAGSE4RI3 Explain events, procedures, ideas, or concepts in a historical, scientific, or technical text, including what happened and why, based on specific information in the text.</p> <p>ELAGSE4RI4 Determine the meaning of general academic language and domain-specific words or phrases in a text relevant to a grade 4 topic or subject area.</p> <p>MGSE4.MD.2 Use the four operations to solve word problems involving distances, intervals of time, liquid volumes, masses of objects, and money, including problems involving simple fractions or decimals, and problems that require expressing measurements given in a larger unit in terms of a smaller unit. Represent measurement quantities using diagrams such as number line diagrams that feature a measurement scale.</p> <p>MGSE4.OA.5 Generate a number or shape pattern that follows a given rule. Identify apparent features of the pattern that were not explicit in the rule itself. Explain informally why the pattern will continue to develop in this way.</p>	<p>M4GM.10 Moving, alone and with others, to a varied repertoire of music. d. Perform choreographed and non-choreographed movements.</p> <p>TAES4.7 Integrating various art forms other content areas, and life experiences to create theater.</p> <p>VA4MC1 Engages in the creative process to generate and visualize ideas.</p> <p>VA4PR.1 Creates artworks based on personal experience and selective themes.</p> <p>VA4PR.3 Understands and applies media, techniques, and processes of three-dimensional works of art (ceramics, sculpture, crafts, and mixed-media) using tools and materials in a safe and appropriate manner to develop skills.</p>
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ASSESSMENTS

<p>Summative Assessments</p>
<ul style="list-style-type: none"> ● Pre/Post Test ● Documenting Phases of the Moon Rubric ● Stable Model of Earth, Sun and Moon Rubric ● Seasons on Stage Rubric

APPENDIX (See Downloads)

<ul style="list-style-type: none"> ● Pre/Post Test

ADDITIONAL RESOURCES

<p>Website:</p> <ul style="list-style-type: none"> ● www.howstufworks.com ● www.visuallearningsys.com <p>Virtual Fieldtrips:</p> <ul style="list-style-type: none"> ● www.eyes.nasa.gov

CREDITS

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