

UNIT 6

Course: Language Arts/Science/SEL	Grade Level: 5th Grade
Unit Title: Earth and Space Science	Length of Unit: Until the end of the third trimester - Approximately 6 weeks
<p>Unit Summary: In this unit, students will think critically about the cause and effect relationships that exist among our planet’s spheres. Students will also examine human activities in agriculture, industry, and everyday life and the major effects on the land, vegetation, streams, ocean, air, and even outer space. Students will learn the distribution of freshwater and saltwater on the Earth, and will also examine individual community efforts expended to help protect the Earth’s resources, the environment, and community and personal conservation efforts. Students will also use the skills and knowledge acquired in this unit to learn that patterns can be found in Earth’s movement around the sun in order to explain the phenomenon of sunrise and sunset, length of shadows at different times of the day, the change in seasons based upon geographical location, and the seasonal appearance of constellations. Students will read a wide range of texts. Students will identify and explain the evidence that an author uses to support particular points in a text. Students will analyze texts on the same topic to determine the ways in which an author’s perspective/purpose influences the central message of a text. Students will write opinion pieces using evidence drawn from literary or informational text to support their argument in order to persuade an audience. Students will use the writing process to ensure that their opinion pieces introduce the topic, state the opinion, logically groups ideas that are supported by facts and details and provide a concluding statement or section related to the opinion.</p> <p>SEL Throughout this unit, students will be asked to <u>monitor their progress and self-assess</u> their ability to independently problem solve.</p>	
Stage 1- Desired Results	
STANDARDS Priority: Science: 5-ESS2-1: Develop a model using an example to describe ways the geosphere, biosphere,	Transfer
	<p><i>Students will be able to independently use their learning to...</i></p> <p>TG1: Develop and use models that explain and justify the importance of interactions between spheres in order to make sound decisions regarding Earth’s resources.</p>

<p>hydrosphere, and/or atmospheres interact.</p> <p>5-ESS1-2: Represent data in graphical displays to reveal patterns of daily changes in length and direction of shadows, day and night, and the seasonal appearance of some stars in the night sky.</p> <p>Language Arts: RL/RI.5.1: Quote accurately from a text when explaining what the text says explicitly and when drawing inferences from the text.</p> <p>RL.5.6: Describe how a narrator's or speaker's point of view influences how events are described.</p> <p>RI.5.6: Analyze multiple accounts of the same event or topic, noting important similarities and differences in the point of view they represent</p> <p>RI.5.8: Explain how an author uses reasons and evidence to support particular points in a text, identifying which reasons and evidence support which point(s).</p> <p>W.5.1: Write opinion pieces on topics or texts, supporting a point of view with reasons and information.</p>	<p>TG2: Read and analyze a wide range of texts, drawing on accurate quotations to support an understanding of how point of view influences the way events/topics are perceived, described, and represented, and to identify the reasons and evidence an author uses to validate key points in a text.</p> <p>TG3: Write an opinion piece on a topic or text that draws on reasons and evidence from a variety of relevant and credible sources.</p>	
	<p style="text-align: center;">Meaning</p>	
	<p>ENDURING UNDERSTANDINGS <i>Students will understand that...</i></p> <p>EU1: Earth's major systems interact in multiple ways to affect Earth's surface materials and processes. (A system can be described in terms of its components and their interactions.)</p> <p>EU2: Earth's major systems interact in multiple ways to affect Earth's surface materials and processes. (Similarities and differences in patterns can be used to sort, classify, communicate, and analyze simple rates of change for natural phenomena.)</p> <p>EU3: Observable data is displayed in graphs for the purpose of interpretation. <i>(Standard units are used to measure and describe physical quantities such as weight and volume.)</i></p>	<p>ESSENTIAL QUESTIONS <i>Students will continue to consider . . .</i></p> <p>EQ1: How does the Earth work as a system? <i>What is a system?</i></p> <p>EQ2: To what extent would the absence of a sphere impact how the Earth functions?</p> <p>EQ3: How does graphing help us understand scientific questions/problems?</p>

<p>A. Introduce a topic or text clearly, state an opinion, and create an organizational structure in which ideas are logically grouped to support the writer's purpose.</p> <p>B. Provide logically ordered reasons that are supported by facts and details.</p> <p>C. Link opinion and reasons using words, phrases, and clauses (e.g., <i>consequently</i>, <i>specifically</i>).</p> <p>D. Provide a concluding statement or section related to the opinion presented.</p> <p>W.5.7: Conduct short research projects that use several sources to build knowledge through investigation of different aspects of a topic.</p>	<p>EU4: A text's central message is defined by the author's point of view.</p> <p>EU5: Authors use reasons and evidence to support the claim they are making within a text; different points in a text require unique supporting reasons and evidence.</p> <p>EU6: A compelling argument is one that is logically constructed, grounded in fact and appealing to the reader's senses and emotions.</p> <p>EU7: Effective problem-solvers identify the appropriate strategy to use, are self-aware of thoughts and feelings when making decisions, and thoughtfully express their thinking while taking into consideration others' perspectives.</p>	<p>EQ4: How does the author's point of view shape and direct the text?</p> <p>EQ5: How does the use of evidence impact an author's claim?</p> <p>EQ6: What makes a good argument? <i>How are compelling arguments constructed?</i></p> <p>EQ7: What does it mean to be an effective problem-solver?</p>
<p>SEL:</p> <p>Goal 1: Develop self-awareness and self-management skills to achieve school and life success.</p> <p>Goal 2: Use social-awareness and interpersonal skills to establish and maintain positive relationships.</p> <p>Goal 3: Demonstrate decision-making skills and responsible behaviors in personal, school, and community contexts.</p>	<p style="text-align: center;">Acquisition</p>	
	<p><i>Students will know...</i></p> <p>K1: Academic Vocabulary</p> <p>Science</p> <p>K2: The Earth's major systems:</p> <ul style="list-style-type: none"> • Geosphere (solid and molten rock, soil, and sediment) • Hydrosphere (water and ice), the atmosphere (air) 	<p>Year-Long English/Spanish "I Can" Statements</p> <p><i>Students will be skilled at...</i></p> <p>Science</p> <p>S1: I can develop a model using an example to describe a scientific principle.</p> <p>S2: I can represent data in graphical displays (bar graphs, pictographs and/or pie charts) to</p>

<p>Supporting: Science: 5-ESS2-2: Describe and graph the amounts and percentages of water and fresh water in various reservoirs to provide evidence about the distribution of water on Earth.</p> <p>Language Arts: RL.5.9: Compare and contrast stories in the same genre (e.g., mysteries and adventure stories) on their approaches to similar themes and topics</p> <p>RI.5.9: Integrate information from several texts on the same topic in order to write or speak about the subject knowledgeably.</p> <p>W.5.6: With some guidance and support from adults, use technology, including the Internet, to produce and publish writing as well as to interact and collaborate with others; demonstrate sufficient command of keyboarding skills to type a minimum of two pages in a single sitting.</p>	<ul style="list-style-type: none"> • Biosphere (living things, including humans) <p>K3: The ocean supports a variety of ecosystems and organisms, shapes, landforms, and influences climate</p> <p>K4: Winds and clouds in the atmosphere interact with landforms to determine the patterns of weather</p> <p>K5: The orbits of Earth around the sun and the moon around Earth, together with the rotation of Earth about an axis between its North and South poles, cause observable patterns. These include day and night; daily changes in the length and direction of shadows; and different positions of the sun, moon, and stars at different times of the day, month, and year</p> <p>K6: Nearly all of Earth's available water is in the ocean. Most freshwater is in glaciers or underground; only a tiny fraction is in streams, lakes, wetlands, and the atmosphere</p> <p>Language Arts/Digital Literacy K7: Reading strategies</p> <p>K8: The structure of opinion writing (organizational structures such as</p>	<p>reveal patterns that indicate relationships.</p> <p>S3: I can describe and graph quantities such as area and volume to address scientific questions.</p> <p>Language Arts/Digital Literacy S8: I can explain what the text says explicitly by quoting accurately from the text. (RL/RI.1)</p> <p>S9: I can provide quotes from the text to support my inferences. (RL/RI.1)</p> <p>S7: I can describe how the narrator's or speaker's point of view influences the description of events. (RL.6)</p> <p>S8: I can identify the point of view of multiple accounts of the same event or topic and analyze the similarities and differences they represent. (RI.6)</p> <p>S9: I can examine how an author provides reasons and evidence to support key points in a text, then identify which reasons or evidence support which ideas or points. (RI.8)</p> <p>S10: I can write opinion pieces that support a point of view on a topic or text. (W.1)</p> <ul style="list-style-type: none"> • I can introduce the text by saying what my opinion is and <i>why</i> by providing
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	<p>comparing/contrasting, problem/solution, cause/effect, etc.)</p> <p>K9: The writing process</p> <p>K10: How to be a responsible digital citizen</p> <p>SEL</p> <p>K11: Goal-setting strategies</p> <p>K12: Strategies for monitoring progress on goals</p>	<p>reasons supported by facts and details.</p> <ul style="list-style-type: none">• I can provide supporting details that are grouped to support my purpose.• I can choose words, phrases, or clauses to link my opinion and reason.• I can write a concluding statement or section that is related to the opinion presented in the introduction. <p>S11: I can gather information from several sources and conduct a short research project and build knowledge. (W.7)</p> <p>S12: I can compare and contrast stories in the same genre on their approaches to similar themes and topics. (RL.9)</p> <p>S13: I can integrate information from several texts on the same topic in order to deepen my understanding of the subject. (RI.9)</p> <p>S14: I can compose (on my own and collaboratively) texts using digital devices, software, websites, the Internet, and other digital tools. (W.6)</p> <p>S15: I can write routinely over extended time frames and shorter time frames for a range of discipline-specific tasks, purposes, and audiences.</p>
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