

UNIT 6

Course: Language Arts/Science/SEL	Grade Level: 6th Grade
Unit Title: Weather and Climate	Length of Unit: Until the end of the third trimester - Approximately 6 weeks
<p>Unit Summary: In this unit, students will construct and use models to develop an understanding of the factors that control weather and climate. A systems approach is also important here, examining the feedback between systems, as energy from the sun is transferred between systems and circulates through the ocean and atmosphere. Students are expected to demonstrate proficiency in asking questions, developing and using models, planning and carrying out investigations, and displaying data to communicate results. To support understanding of topics and texts, students will continue to read from a wide range of texts over time, analyzing how an author develops a point of view in a text, and how authors support ideas. A focus on the use of multiple sources about a topic will support students thinking about the evidence that authors include in their writing, which will support students as they continue research topics and publish arguments of their own.</p> <p>SEL Throughout this unit, students will be asked to <u>monitor their progress and self-assess</u> their ability to analyze why a goal was/wasn't achieved and draw on this understanding to set and achieve personal and academic goals.</p>	
Stage 1- Desired Results	
<p>STANDARDS</p> <p>Priority: Science: MS-ESS2-6: Develop and use a model to describe how unequal heating and rotation of the Earth cause patterns of atmospheric and oceanic circulation that determine regional climates.</p> <p>Language Arts: RL/RI.6.1: Cite textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.</p>	<p>Transfer</p> <p><i>Students will be able to independently use their learning to...</i></p> <p>TG1: Develop and use models to demonstrate an understanding of the factors that control weather and climate in order to make predictions, address, and/or find solutions to real-world problems.</p> <p>TG2: Read and analyze a wide range of texts, citing textual evidence to explain how an author conveys purpose or establishes and develops a narrator or speaker's point of view, and to determine the validity of an argument by examining the degree to which it is supported by reasons and evidence.</p> <p>TG3: Engage in the research process on a topic of choice and write an argument that</p>

<p>RL.6.6: Explain how an author develops the point of view of the narrator or speaker in a text.</p> <p>RI.6.6: Determine an author's point of view or purpose in a text and explain how it is conveyed in the text.</p> <p>RI.6.8: Trace and evaluate the argument and specific claims in a text, distinguishing claims that are supported by reasons and evidence from claims that are not.</p> <p>W.6.1: Write arguments to support claims with clear reasons and relevant evidence.</p> <p>A. Introduce claim(s) and organize the reasons and evidence clearly.</p> <p>B. Support claim(s) with clear reasons and relevant evidence, using credible sources and demonstrating an understanding of the topic or text.</p> <p>C. Use words, phrases, and clauses to clarify the relationships among claim(s) and reasons.</p> <p>D. Establish and maintain a formal style.</p> <p>E. Provide a concluding statement or section that follows from the argument presented.</p> <p>W.6.7: Conduct short research projects to answer a question, drawing on several sources and</p>	<table> <tr> <th colspan="2" data-bbox="619 193 1946 293"> defends a claim with logical reasons and evidence from responsible and reliable sources. </th></tr> <tr> <th colspan="2" data-bbox="619 293 1946 363"> Meaning </th></tr> <tr> <td data-bbox="619 363 1287 1511"> <p>ENDURING UNDERSTANDINGS <i>Students will understand that....</i></p> <p>EU1: Weather and climate are influenced by interactions involving sunlight, the ocean, atmosphere, ice, landforms, and living things. <i>(Cause and effect relationships may be used to predict phenomena in natural or designed systems.)</i></p> <p>EU2: Models can be used to represent systems and their interactions—such as inputs, processes and outputs— and energy, matter, and information flows within systems.</p> <p>EU3: Authors achieve their purpose by controlling what the reader knows through the choices they make (e.g., content, point of view, style, word choice); An author's choices distinguish their position, viewpoint, or attitude from that of others.</p> <p>EU4: Effective readers evaluate the reasons and evidence authors use to support their arguments to determine whether the claims and evidence support the argument.</p> <p>EU5: A compelling argument draws on valid evidence from a variety of sources to support</p> </td><td data-bbox="1287 363 1946 1511"> <p>ESSENTIAL QUESTIONS <i>Students will continue to consider . . .</i></p> <p>EQ1: How are weather and climate influenced?</p> <p>EQ2: To what extent has climate change impacted Earth's processes and structures?</p> <p>EQ3: How does point of view influence my understanding of a text? <i>How does point of view/purpose influence how a story/event is told?</i></p> <p>EQ4: How do I know if a claim is valid? <i>How do I determine if evidence actually supports the author's claim?</i></p> <p>EQ5: How do writers form compelling arguments that impact readers for change?</p> </td></tr> </table>	defends a claim with logical reasons and evidence from responsible and reliable sources.		Meaning		<p>ENDURING UNDERSTANDINGS <i>Students will understand that....</i></p> <p>EU1: Weather and climate are influenced by interactions involving sunlight, the ocean, atmosphere, ice, landforms, and living things. <i>(Cause and effect relationships may be used to predict phenomena in natural or designed systems.)</i></p> <p>EU2: Models can be used to represent systems and their interactions—such as inputs, processes and outputs— and energy, matter, and information flows within systems.</p> <p>EU3: Authors achieve their purpose by controlling what the reader knows through the choices they make (e.g., content, point of view, style, word choice); An author's choices distinguish their position, viewpoint, or attitude from that of others.</p> <p>EU4: Effective readers evaluate the reasons and evidence authors use to support their arguments to determine whether the claims and evidence support the argument.</p> <p>EU5: A compelling argument draws on valid evidence from a variety of sources to support</p>	<p>ESSENTIAL QUESTIONS <i>Students will continue to consider . . .</i></p> <p>EQ1: How are weather and climate influenced?</p> <p>EQ2: To what extent has climate change impacted Earth's processes and structures?</p> <p>EQ3: How does point of view influence my understanding of a text? <i>How does point of view/purpose influence how a story/event is told?</i></p> <p>EQ4: How do I know if a claim is valid? <i>How do I determine if evidence actually supports the author's claim?</i></p> <p>EQ5: How do writers form compelling arguments that impact readers for change?</p>
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<p>refocusing the inquiry when appropriate.</p> <p>SEL: 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>a claim through sound reasoning unlike a rant where a person speaks passionately about a subject with no credibility.</p> <p>EU6: Embracing and persevering through challenges and viewing mistakes as opportunities for growth enable us to be successful in achieving our goals.</p>	<p>How do I know what to believe? <i>How is an evidence-based argument more effective than an emotional rant?</i></p> <p>EQ6: What does it take to be successful when setting and achieving goals?</p>
<p>Supporting: Science: MS-ESS2-5: Collect data to provide evidence for how the motions and complex interactions of air masses result in changes in weather conditions.</p> <p>MS-ESS2-4: Develop a model to describe the cycling of water through Earth's systems driven by energy from the sun and the force of gravity.</p> <p>Language Arts: RL.6.9: Compare and contrast texts in different forms or genres (e.g., stories and poems; historical novels and fantasy stories) in terms of their approaches to similar themes and topics.</p>	<p>Acquisition</p>	
	<p><i>Students will know...</i></p> <p>K1: Academic Vocabulary</p> <p>Science K2: Water continually cycles among land,ocean, and atmosphere via transpiration, evaporation, condensation and crystallization, and precipitation, as well as downhill flows on land</p> <p>K3: The complex patterns of the changes and the movement of water in the atmosphere, determined by winds, landforms, and ocean temperatures and currents, are major determinants of local weather patterns</p> <p>K4: Global movements of water and its changes in form are propelled by sunlight and gravity</p> <p>K5: Variations in density due to variations in</p>	<p>Year-Long English/Spanish "I Can" Statements</p> <p><i>Students will be skilled at...</i></p> <p>Science S1: I can develop and use a model to describe phenomena.</p> <p>S2: I can develop a model to describe unobservable mechanisms.</p> <p>S3: I can collect data to produce data to serve as the basis for evidence to answer scientific questions or test design solutions under a range of conditions</p> <p>S4: I can summarize data in relation to their context.</p> <p>Language Arts/Digital Literacy S5: I can analyze what the text says explicitly and cite textual evidence to support my belief. (RI/RL.1)</p>

<p>RI.6.9: Compare and contrast one author's presentation of events with that of another (e.g., a memoir written by and a biography on the same person).</p> <p>W.6.6: 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 three pages in a single sitting.</p>	<p>temperature and salinity drive a global pattern of interconnected ocean currents</p> <p>K6: Interactions involving sunlight, the ocean, the atmosphere, ice, landforms, and living things vary with latitude, altitude, and local and regional geography, all of which can affect oceanic and atmospheric flow patterns</p> <p>K7: Weather can only be predicted probabilistically because the oceanic and atmospheric flow patterns are so complex</p> <p>K8: The ocean exerts a major influence on weather and climate by absorbing energy from the sun, releasing it over time, and globally redistributing it through ocean currents</p> <p>Language Arts/Digital Literacy</p> <p>K9: What a claim is</p> <p>K10: How claims are supported</p> <p>K11: The structure of argument writing</p> <p>K12: How authors convey point of view</p>	<p>S6: I can infer what the text says and cite textual evidence as support. (RI/RL.1)</p> <p>S7: I can explain how an author develops a narrator or speaker's point of view in a text. (RL.6)</p> <p>S8: I can explain how an author's point of view or purpose is conveyed in the text. (RI.6)</p> <p>S9: I can trace an argument to determine if the claim is supported. (RI.8)</p> <p>S10: I can write arguments to support claims with clear reasons and relevant evidence. (W.1)</p> <ul style="list-style-type: none"> • I can introduce the claim(s) and organize the reasons and evidence clearly. • I can support claim(s) with clear reasons and relevant evidence, using credible sources and demonstrating an understanding of the topic or text. • I can use words, phrases, and clauses to clarify the relationships among claim(s) and reasons. • I can establish and maintain a formal style of writing. • I can provide a concluding statement or section. <p>S11: I can gather information from several</p>
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		<p>sources and conduct a short research project and build knowledge. (W.7)</p> <p>S12: I can create a bibliography page. (W.8)</p> <p>S13: I can understand what censorship is. (Info/Dig Lit Goal 2)</p> <p>S14: I can select an appropriate format for communicating ideas. (Info/Dig Lit Goal 3)</p> <p>S15: I can annotate digitally. (Info/Dig Lit Goal 4)</p> <p>S16: I can create and publish a multiple page product using the appropriate technology for the task. (Info/Dig Lit Goal 4)</p> <p>SEL</p> <p>S17: I can analyze why I did or did not achieve a goal.</p>