

Stage 1 - Desired Results		
<p>ESTABLISHED GOALS (CCSS)</p> <p>RI 9.4 - Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings; analyze the cumulative impact of specific word choices on meaning and tone</p> <p>RST 9.1 - Cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.</p> <p>RST 9.3 - Analyze how the author unfolds an analysis or series of ideas or events, including the order in which the points are made, how they are introduced and developed, and the connections that are drawn between them.</p> <p>RST 9.4 - Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings; analyze the cumulative impact of specific word choices on meaning and tone.</p> <p>WHST 9-1a - Introduce precise claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that establishes clear relationships among the claim(s), counterclaims, reasons, and evidence.</p> <p>High School Modeling Standard</p>	<i>Transfer</i>	
	<p>Students will be able to independently use their learning to...</p> <p>Identify the various evidence that shows continental drift.</p> <p>Show how the positions of the landmasses have changed and have also been connected into a single supercontinent.</p> <p>Explain the driving mechanism behind the movement of Earth’s lithospheric plates.</p> <p>Describe how plate tectonics causes stress in the crust that creates different features and landforms.</p>	
	<i>Meaning</i>	<i>Essential Questions</i>
	<p>UNDERSTANDINGS</p> <p>Students will understand that...</p> <p>The Earth’s solid Lithosphere is broken up into plates that move.</p> <p>The movement of these plates is driven by convection currents within the Mantle.</p> <p>Interaction between the plates creates different landforms and causes events like earthquakes and volcanoes.</p> <p>The lithosphere is less dense than the asthenosphere.</p>	<p>ESSENTIAL QUESTIONS:</p> <p>What is continental drift?</p> <p>What evidence supports continental drift and how is this evidence obtained?</p> <p>What is seafloor spreading?</p> <p>What is magnetic reversal?</p> <p>What are the different types of plate boundaries?</p> <p>What is convection?</p> <p>What are the different faults and folds caused by stress in the crust?</p> <p>How does plate movement lead to mountain building?</p> <p>What effect does the change in weight or density in the crust have on its buoyancy in the mantle?</p>
	<i>Acquisition</i>	
	<p>Students will know...</p> <p>The Lithosphere is broken up into about 20 plates. Some are very large, some are small. Some plates collide, some move away from each other, & some slide past each other.</p> <p>Plate movement occurs when heated material rises through the Mantle, spreads within the Asthenosphere, cools, and sinks creating a convection current.</p>	<p>Students will be skilled at...</p> <p>Identifying the location, size, shape, orientation, and movement of Earth’s major lithospheric plates.</p> <p>Using evidence found at the edges of the plates to show where some plates were once joined (for example, Pangaea), and thereby show the locations of landmasses at different times throughout Earth’s geologic history.</p> <p>Demonstrating isostatic adjustment, or the lithosphere’s buoyancy on the asthenosphere and</p>

	<p><i>Interaction between plates creates stress that causes faulting, folding, and orogeny.</i></p> <p><i>The balance between the downward force of the crust and the upward force of the mantle is isostasy.</i></p>	<p>the effects of adding or removing weight or thickness, and changing density.</p>
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Stage 2 – Evidence

Evaluative Criteria	Assessment Evidence
<p>PERFORMANCE TASKS</p>	<p>CURRICULUM EMBEDDED PERFORMANCE ASSESSMENT (PERFORMANCE TASKS):</p> <p>Using the same evidence used by Alfred Wegener, label, and match up present day landmasses to show where they were located, and how they were joined during the time of Pangaea.</p> <p>Given a set of diagrams, identify the different types of plate boundaries and describe what is happening at each.</p> <p>Given information about the relative age of rock layers exposed at the surface as clues, draw the geologic structure of those layers beneath the surface revealing whether they are anticlines or synclines or combinations of both.</p> <p>Using wood blocks of different densities and water, demonstrate and model a comparison of how oceanic and continental crust float in the mantle. Also, show how the crust floats differently in the mantle beneath a mountain range compared to a flat plain.</p>
<p>CLAIMS</p>	<p><u>CLAIM 1</u> <u>CLAIM 2</u> <u>CLAIM 3</u> <u>CLAIM 4</u></p>
<p>DEPTH OF KNOWLEDGE LEVELS</p>	<p><u>DOK 1</u> <u>DOK2</u> <u>DOK 3</u> <u>DOK4</u></p>
<p>ACHIEVEMENT LEVEL DESCRIPTORS</p>	<p><u>ALD 1</u> <u>ALD 2</u> <u>ALD 3</u> <u>ALD 4</u></p>

Stage 3 – Learning Plan

<p>Notes/discussion – Continental Drift, Plate Tectonics, Magnetic Reversal, Seafloor Spreading, Plate Boundaries, Faults, Folds, Mountain Building.</p> <p>Pangaea Project</p> <p>Isostasy Lab Activity</p>
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