

	Life	Earth	Physical	Alaska's Seas and Rivers
6th Systems, Order and Organizations	<p><u>Diversity of Life</u></p> <p>Big Idea: Diverse life forms have similarities and differences in form and function.</p> <p>Essential Question: What factors contribute to the diversity of life?</p>	<p><u>Weather</u></p> <p>Big Idea: Daily weather and climate patterns are the outcome of interactions between water, air, sun and land.</p> <p>Essential Question: How do climate and weather affect each other?</p>	<p><u>Forces and Motion</u></p> <p>Big Idea: Forces, motion and energy interrelate and may be quantified.</p> <p>Essential Question: How do forces interact to influence the motion and position of objects? How do waves move?</p>	<p><u>Explorations in the Seas and Oceans</u></p> <p>Big Ideas: The ocean is largely unexplored. Humans must use ingenious ways to study the ocean. Exploration leads to discovery. Science and technology can be used to detect and solve problems.</p> <p>Essential Question: How can technology help us explore the ocean? Why do we want to explore the ocean?</p>
7th Evidence, Models and Explanation	<p><u>Human Body</u></p> <p>Big Idea: Biological principals rule the human body.</p> <p>Essential Questions: How do human body systems work together? How do humans grow, develop, and stay healthy? How are human traits passed on through reproduction?</p>		<p><u>Energy Transformations, Electricity, and Magnetism</u></p> <p>Big Idea: Energy can be transferred and transformed, but never created or lost.</p> <p>Essential Question: What is energy and how does it change? How are electricity and magnetism related?</p> <p><u>Structure of Matter</u></p> <p>Big Idea: All matter is made up of atoms and molecules of a finite number of elements, arranged in ways that determine its possibilities.</p> <p>Essential Question: How does the structure of matter affect its properties and interactions?</p>	<p><u>Ocean in Motion</u></p> <p>Big Ideas: Physical changes in the aquatic environment occur on a daily, seasonal, and long-term basis. Weather systems and ocean systems have major influences on one another and the dynamics of matter and energy. Science and technology can be used to detect and solve problems.</p> <p>Essential Questions What are the patterns of physical changes in aquatic environments? How do they affect us? What are the major weather and ocean circulation systems in Alaska?</p>

<p style="writing-mode: vertical-rl; transform: rotate(180deg);">8th Constancy, Change and Measurement</p>	<p><u>Ecosystems and Interrelationships</u></p> <p>Big Idea: When we try to pick out anything by itself we find it hitched to everything else in the Universe. (Quote by John Muir)</p> <p>Essential Question: How does energy and matter flow through an ecosystem? How do organisms in an ecosystem interact with and depend on one another?</p>	<p><u>Forces that Shape the Earth</u></p> <p>Big Idea: The earth’s surface is shaped by climate, gravity and heat from the earth’s interior.</p> <p>Essential Questions: How does climate affect Earth’s surface? How do processes inside the earth affect the surface features that we can see?</p> <p><u>Astronomy</u></p> <p>Big Idea: Science can tell us much about the composition of the universe and the principles on which it operates.</p> <p>Essential Question: What do observable phenomena tell us about the universe around us?</p>		<p><u>Impacts of Ocean Changes Our Changing World</u></p> <p>Big Ideas: Climate patterns cause physical changes in the environment. Physical changes in the environment can change the conditions for life. Science and technology can be used to detect and solve problems.</p> <p>Essential Questions: How do changes in physical environment affect our ecosystems? What impacts will a warming climate have on Alaska seas and rivers?</p>
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