

	Life	Earth	Physical	Alaska Seas and Rivers
K	<p>Senses</p> <p>Big Idea: Senses give us information and help us to survive in the environment.</p> <p>Essential Question: How do our senses give us information about the world? In what ways do an animal's senses help it to survive in its environment?</p>	<p>Discovering our Outdoors World</p> <p>Big Idea: The natural world outside gives us a lot to observe and wonder about.</p> <p>Essential Question: What do you notice about the world outside?</p>	<p>Properties of Matter</p> <p>Big Idea: Everything has its own special properties.</p> <p>Essential Question: How are objects and materials the same and different?</p>	<p>Discovering our Big Blue Planet</p> <p>Big Idea: Living and non-living things in Alaska's water.</p> <p>Essential Question: What are the characteristics of the living and non-living things you discover in the water?</p>
	Insights: Senses	JSD Kit: Discover	Delta Kit: Fabric	http://seagrant.uaf.edu/marine-ed/curriculum
1	<p>Living and Non-living Things</p> <p>Big Idea: Living things need food, water, shelter, air and space.</p> <p>Essential Question: What are the needs of living things? How do we know something is living?</p>	<p>Weather Observations</p> <p>Big Idea: We can observe our weather changing.</p> <p>Essential Question: How does the weather give us information about the world around us?</p>	<p>Liquids and Solids</p> <p>Big Idea: Objects have observable properties and these properties can change.</p> <p>Essential Question: How can you describe the properties of objects and the changes that can happen to them?</p>	<p>Plants and Animals of the Seas</p> <p>Big Idea: There are a variety of aquatic plants and animals that live near us, each with its own unique characteristics.</p> <p>Essential Question: What kinds of plants and animals live in or near the water?</p>
	Foss: Trees OR Animals 2 X 2 STC: Organisms	STC Kit: Weather	STC Kit: Solids and Liquids	http://seagrant.uaf.edu/marine-ed/curriculum
2	<p>Life Cycles of Plants and Animals</p> <p>Big Idea: The details of a life cycle are different for different organisms.</p> <p>Essential Question: How do different plants and animals grow, develop and survive?</p>	<p>Rocks & Soils</p> <p>Big Idea: Some changes to rocks and dirt can be seen and some take too long to see happen.</p> <p>Essential Question: How can rocks change? What is found in soil?</p>	<p>Forces and Motion</p> <p>Big Idea: Forces make objects move in different ways.</p> <p>Essential Question: In what ways do objects move? How do forces affect the motion of objects?</p>	<p>At Home in the Water</p> <p>Big Idea: Different animals have different habitats.</p> <p>Essential Question: Where do animals live and why?</p>
	STC: Life Cycle of the Butterfly FOSS: Insects & Plants	Foss Kit: Pebbles, Sand & Silt	FOSS Kit: Balance and Motion	http://seagrant.uaf.edu/marine-ed/curriculum

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3	<p>Energy Flow</p> <p>Big Idea: Energy is passed from one organism to another through food webs; which can include plants, animals, dead things, and the sun.</p> <p>Essential Question: How are plants, animals, dead things and the sun connected to one another in food webs?</p>	<p>Patterns in the Sky and Weather</p> <p>Big Idea: Predictable patterns can be observed in the sky and weather.</p> <p>Essential Question: What patterns do you notice in the day and night sky? What patterns do you notice in our weather?</p>	<p>Part to Whole</p> <p>Big Idea: Everything is made from something and properties of things can change when they are combined.</p> <p>Essential Question: What are the relationships between an object and its parts? How do the properties of materials change or stay the same?</p>	<p>Rivers to the Sea and Back Again</p> <p>Big Idea: People, salmon and water are connected via the systems of wetlands, rivers and seas of Alaska.</p> <p>Essential Question: How are we connected to wetlands, rivers and the sea? What is the salmon's life journey through the wetlands, rivers and sea?</p>
	Seeds & Roots: Soil Habitats Kit	FOSS Kit: Sun, Moon & Stars	Seeds & Roots: Designing Mixtures	http://seagrant.uaf.edu/marine-ed/curriculum
4	<p>Ecosystems of Alaska</p> <p>Big Idea: Ecosystems are made up of interactions of organisms with their living and non-living environment.</p> <p>Essential Question: What describes an ecosystem? What types of ecosystems do we have in Alaska?</p>	<p>Processes that Shape the Earth</p> <p>Big Idea: The surface of the earth is constantly changing and no feature on earth is permanent.</p> <p>Essential Question: What are the natural causes that create rapid or slow change on the surface of the Earth? How do these natural causes affect the Earth's surface?</p>	<p>States of Matter/ H2O cycle</p> <p>Big Idea: Water is all around us; sometimes it is visible and sometimes we cannot see it with our naked eyes.</p> <p>Essential Question: In what ways can water change form? Where does water go and where does it come from?</p>	<p>Case of the Missing Sea Otter</p> <p>Big Idea: Organisms in aquatic habitats interact with and depend on one another in various ways.</p> <p>Essential Question: What is an ecosystem? In what ways are organisms in aquatic environments connected to each other?</p>
	STC Kit: Ecosystems Seeds & Roots: Aquatic Ecosystems	STC Kit: Land & Water	FOSS Water Kit	http://seagrant.uaf.edu/marine-ed/curriculum
5	<p>Structure and Function of Animals</p> <p>Big Idea: We understand how various organisms survive by comparing the structure and function of living things.</p> <p>Essential Question: How do animals use their unique characteristics as an advantage to survive?</p>	<p>Astronomy: Earth and Sky</p> <p>Big Idea: The movement of the earth and the moon and their relationship to the sun affects systems on earth (weather, seasons, tides...).</p> <p>Essential Question: What is the relationship between the earth and celestial objects in the sky?</p>	<p>Heat and Movement</p> <p>Big Idea: Heat is a result of energy that is produced almost everywhere, spreads from one place to another, and causes changes.</p> <p>Essential Questions: How is heat produced? How is it transferred? What kind of changes does it cause? How can heat from the sun be used to do useful work?</p>	<p>Human and the Oceans</p> <p>Big Idea: Humans can impact the ocean in negative and positive ways.</p> <p>Essential Questions: How do people interact with the ocean? What can we do to take care of the ocean?</p>
	STC Kit: Animal Studies JSD Kit: Bird Unit	Gems: Space Seeds & Roots: Planets & Moons	JSD Kit: Heat Transfer	http://seagrant.uaf.edu/marine-ed/curriculum

