

MARE Rocky Seashore Curricula

Grade 1

Synopsis and Key Concepts	CA State Standards Correlation
<p><i>SEASHORE CHARADES</i></p> <p>Students learn about the rocky seashore as they enter the habitat through a simulated field trip using slides illustrating how organisms living there are adapted to survive among crashing waves and changing tides and how to escape being someone’s lunch. Students take turns acting out the adaptations of creatures living there as the teacher directs the action.</p> <ul style="list-style-type: none"> • <i>The place where animals find the shelter, food and water that they need is called a habitat.</i> • <i>The rocky seashore is a habitat with very special animals and seaweeds.</i> • <i>There are high tides and low tides and crashing waves at the rocky seashore.</i> • <i>The special things animals have or the way they act that help them to survive the crashing waves and changing tides are called adaptations.</i> 	<p>2. Life Sciences: Plants and animals meet their needs in different ways.</p> <ol style="list-style-type: none"> a. different plants and animals inhabit different kinds of environments and have external features that help them thrive in different kinds of places. b. both plants and animals need water, animals need food and plants need light. c. animals eat plants or other animals for food and may also use plants or even other animals for shelter. <p>Reinforces K Earth Science Standards: The earth is composed of land, air and water. 3a. characteristics of mountains, rivers, oceans, valleys, deserts and local landforms</p>
<p><i>SEASHORE SLEUTHING</i></p> <p>Students observe the properties of rocks and sand and make candy “sand” to investigate the forces of erosion. Students cycle through three hands-on activity stations looking closely at sand, gravel and beach drift that will eventually become sand and participate in a guided investigation to find out how the rising and falling tides “behave” differently in sand versus gravel. Students hide plastic seashore animals under sand, gravel and rocks and observe which substrate is safest when hit by thundering waves (buckets of water).</p> <ul style="list-style-type: none"> • <i>Rocks, shells and other beach drift become sand as they are broken into smaller pieces by the crashing waves.</i> • <i>There are different kinds of seashores–some are sand, some are gravel and some are rocky.</i> • <i>Different types of animals, seaweed and plants are adapted</i> 	<p>2. Life Sciences: Plants and animals meet their needs in different ways.</p> <ol style="list-style-type: none"> a. different plants and animals inhabit different kinds of environments and have external features that help them thrive in different kinds of places. <p>4. Invest. & Experiment.: Scientific progress is made by asking meaningful questions and conducting careful investigations.</p> <ol style="list-style-type: none"> a. draw pictures, b. record observations in various ways, d. make new observations when discrepancies arise.

<p><i>to live at different types of seashores.</i></p> <ul style="list-style-type: none"> • <i>Sand, gravel and larger rocks provide very different places for organisms to live. Sand holds water better than gravel and is a safer place to survive crashing waves.</i> 	<p>Introduction to Grade 2 Earth Science Standards: Earth is made of materials that have distinct properties 3a. how to compare the physical properties of different kinds of rocks. b. smaller rocks come from the breakage and weathering of larger rocks, c. soil (sand) is made partly from weathered rock and partly from organic materials, and that soils (sands) differ in their color, texture, capacity to retain water, and ability to support the growth of many kinds of plants.</p>
<p><i>CRAYFISH CAPERS</i></p> <p>Students work in small groups to create a habitat for crayfish. They carefully observe and draw the crayfish’s external anatomy and describe their behavior to discover the ways a crayfish is adapted to live in a water home.</p> <ul style="list-style-type: none"> • Crayfish are living creatures that must be treated with respect. • Crayfish have special adaptations to survive in their freshwater habitat. • Crayfish have many special parts and behaviors that are the same as other crustaceans, but they also very different 	<p>2. Life Sciences: Plants and animals meet their needs in different ways. a. different plants and animals inhabit different kinds of environments and have external features that help them thrive in different kinds of places.</p> <p>4. Invest. & Experiment.: Scientific progress is made by asking meaningful questions and conducting careful investigations. a. draw pictures, b. record observations in various ways, d. make new observations when discrepancies arise.</p>
<p><i>WHO AM I?</i></p> <p>In this jigsaw activity, students work in small groups to teach each other about some important traits and adaptations of rocky seashore creatures. They participate in a game show and a 20-question guessing game to check for understanding.</p> <ul style="list-style-type: none"> • <i>The rocky seashore is a habitat with many, very different creatures.</i> • <i>Each rocky seashore animal has special adaptations for</i> 	<p>2. Life Sciences: Plants and animals meet their needs in different ways. a. different plants and animals inhabit different kinds of environments and have external features that help them thrive in different kinds of places. b. both plants and animals need water, animals need food and</p>

<p><i>living there.</i></p> <ul style="list-style-type: none"> • <i>Encouraging others helps everyone to be a winner!</i> 	<p>plants need light.</p> <p>c. animals eat plants or other animals for food and may also use plants or even other animals for shelter.</p>
<p><i>TIDEPOOL BOOGIE</i></p> <p>Tidepool Boogie focuses on eight different organisms representative of the diversity in this unique and rigorous habitat. Students listen to and talk about the song “Tidepool Boogie” and then work together in small groups to act out the organisms in the song. The class then stages a performance, complete with costumes.</p> <ul style="list-style-type: none"> • <i>There are many, very different types of animals and seaweeds that make their home at the rocky seashore.</i> 	<p>2. Life Sciences:</p> <p>Plants and animals meet their needs in different ways.</p> <p>a. different plants and animals inhabit different kinds of environments and have external features that help them thrive in different kinds of places.</p> <p>b. both plants and animals need water, animals need food and plants need light.</p> <p>c. animals eat plants or other animals for food and may also use plants or even other animals for shelter.</p>
<p><i>BUILD A ROCKY SEASHORE</i></p> <p>Students widen the focus of their study of the rocky seashore habitat as they play Seashore Bingo and sort animal and seaweed pictures into the zones where the animals actually live on the shore. They then build a 3-d rocky seashore and place organisms in the correct tidal zones. Students work as individuals and in groups to create a Field Trip Guide for other classes to use when visiting their rocky seashore classroom.</p> <ul style="list-style-type: none"> • <i>The rocky seashore is a neighborhood that is home to many kinds of seaweeds and animals.</i> • <i>Seaweeds and animals of the rocky seashore live in a special spot or zone within the habitat.</i> • <i>Rules help to protect rocky seashore organisms and people visiting them</i> 	<p>2. Life Sciences:</p> <p>Plants and animals meet their needs in different ways.</p> <p>a. different plants and animals inhabit different kinds of environments and have external features that help them thrive in different kinds of places.</p> <p>b. both plants and animals need water, animals need food and plants need light.</p> <p>c. animals eat plants or other animals for food and may also use plants or even other animals for shelter.</p>

Overview

Life Science 2a, b, c [Activities: 1, 2 (2a), 3 (2a), 4, 5, 6]

Investigation 4a, b, d [Activities 2, 3]

Reinforces K Earth Science 3a [Activity 1]

Introduction to Grade 2 Earth Science 3a, b, c [Activity 2]