



Scout Island Learning Modules

Titles

California State Standards

<p>Paws and Jaws</p> <p>The adaptations that allow mammals to be successful on land and water are explained through the hands-on exploration of replica skulls, teeth, and feet. Structure-function relationships are modeled so that predator-prey relationships, food web placement, and feeding types (carnivore, herbivore and omnivore) can be easily identified. Local animal specimens are the focus of this activity.</p>	<p style="text-align: right;">Grades 3-12</p> <p>Life Sciences: 2nd Grade: 2a-e. 3rd Grade: 3a.b. 4th Grade: 2b, 3b. 6th Grade: 5b-d. 7th Grade: 5c. 8th Grade: 5d.</p>
<p>Macroinvertebrates</p> <p>Using macroinvertebrates (water creepy crawlies) as biological indicators of river water quality, students determine the health of the San Joaquin River. Color picture keys assist students with the identification and classification of the freshly collected animals. A written analysis involves the collection of class data and the sorting of samples to determine levels of pollution tolerance.</p>	<p style="text-align: right;">Grades 2-12</p> <p>Life Sciences: 2nd Grade: 2a-d. 3rd Grade: 3a-e. 4th Grade: 3b, 6c. 5th Grade: 6b, d, e. 6th Grade: 5.c, d. Investigation and Experimentation: 6th Grade: 7a-e.</p>
<p>Fur, Feet and Tracks</p> <p>Usually offered as an extension to Paws and Jaws, students will learn more about mammalian structure-function relationships. In this activity, students investigate fur samples and tracks, through hands-on exploration of pelt samples and track plates. Students will also use field guides to answer questions, writing and drawing "field notes" about these local animals. Optional: make and take tracks are available, depends on weather, time constraint and additional fees.*</p>	<p style="text-align: right;">Grades 3-8</p> <p>Life Sciences: 3rd Grade: 3a-b. 4th Grade: 2b, 3b. 7th Grade: 5c. 8th Grade: 5d.</p>

<p>Incredible Journey</p> <p>Students simulate the movement of water within the water cycle by rolling giant dice to demonstrate the variable paths, direction, and states of matter. A detailed discussion of the water cycle precedes the activity and includes the topic of local water resources, water treatment, and water conservation. Closure involves a writing component that outlines their specific water journey and the processes involved. (Adapted from Project Wet)</p>	<p style="text-align: right;">Grades 5-8</p> <p>Life Sciences: 5th Grade: 1g, 3a-e., 2e. 6th Grade: 4a, 6b. Physical Sciences: 8th Grade: 3d-e.</p>
<p>Migration Headache</p> <p>Students become "migrating birds" traveling between nesting and wintering habitats. Along their journeys they experience some of the threats that may affect the species survival. Migratory flyways and local bird migrations are highlighted with emphasis on the birds in our Pacific Flyway and our local wetland areas. Students then graph the results to see the fluctuations in population and the correlation to wildlife threats. (Adapted from Project Wild)</p>	<p style="text-align: right;">Grades 3-8</p> <p>Life Sciences: 3rd Grade: 3d, e. 4th Grade: 2b, 6e. 6th Grade: 7c.</p>
<p>Salmon Natural History and Art</p> <p>The life cycle, historic importance, and the current relevance of the Pacific Salmon to the San Joaquin River are explained. Students enrich their knowledge base by using anatomically correct latex models of salmon and trout (Salmonids) to create colorful artistic fish prints reminiscent of Japanese Gyotaku images.</p>	<p style="text-align: right;">Grades 1-8</p> <p>Life Sciences: 1st Grade: 2a. 2nd Grade: 2b. 3rd Grade: 3b, d, e. 4th Grade: 2b.</p> <p>California Art Standards: 2nd Grade: 1.3, 2.3. 3rd Grade: 1.3, 1.5, 2.3. 4th Grade: 1.5. 5th Grade: 2.1. 6th Grade: 2.1, 2.3, 2.4. 7th Grade: 2.1. 9th- 12^{tr} Grades: 2.1, 2.4, advanced: 2.1.</p>
<p>Birds of Prey (The Flying Terminators)</p> <p>A local Master Falconer presents live birds of prey while pointing out the adaptations for flight, predation, camouflage, behavior, and survival. Food webs that include these local predators are highlighted. This presentation allows the student to view these raptors in an up-close and non-threatening fashion not normally available in the wild.</p>	<p style="text-align: right;">Grades 2-12</p> <p>Life Sciences: 3rd Grade: 3a-d. 4th Grade: 2b, c, 3b. 5th Grade: 2a-c. 6th Grade: 5b. 7th Grade: 5g. 9th-12th Grades: 6a.</p>

<p>Birds: Beaks, Feet, and Feathers</p> <p>The unique adaptations that provide birds the ability to fly and to occupy many diverse niches are illustrated through the hands-on manipulation of replica beaks, feet, and feathers. Structure-function relationships are highlighted, as are local food webs and feeding styles. Local bird species are highlighted, and bird watching is introduced.</p>	<p style="text-align: right;"><i>Grades 3-12</i></p> <p>Life Sciences: 3rd Grade: 3a, b. 4th Grade: 2b, 3b, c. 6th Grade: 5b-d. 7th Grade: 5c. 8th Grade: 5d.</p>
<p>Nature Walkabout</p> <p>Lead by qualified instructors, students take a stroll along the San Joaquin River discovering local riparian flora and fauna. The identification of the wildlife and native plants involves the use of the students' five senses. Adaptations specific to survival, including the Native American uses of these plants and animals and the problems caused by invasive plants are the focus of this guided walk. Scientific and common names are used, depending on the grade level.</p>	<p style="text-align: right;"><i>Grades K-12</i></p> <p>Life Sciences: 1st Grade: 2a-e. 2nd Grade: 2a-f. 4th Grade: 2a-c, 3a-d. 5th Grade: 2a-c, 3a, b 6th Grade: Ecology: 5a-e. 7th Grade: 1b, e, f. 8th Grade: 6a, c. 9th -12th Grades: 6a-f, 7a, c.</p> <p>Investigations and Experimentation: 7th Grade: 7a.</p> <p>Math: 1.1-1.2.</p>
<p>Weather Watch</p> <p>Using the water cycle as the basis for an overview of meteorology, this activity is split between classroom and field exploration. Attention is paid to California's diverse climatology, local weather patterns, cloud types, and storm formations. The on-site weather station provides real-time data for local weather condition analysis.</p>	<p style="text-align: right;"><i>Grades 3-8</i></p> <p>Earth Sciences: 1st Grade: 3a-c. 5th Grade: 3a-e, 4a-e. Investigation and Research: 5th Grade: 6a-b, d-i. 6th Grade: 4a, d.</p> <p>Energy in the Earth System: 9th-12th Grades: 4a-c., 5a-g, 6a-d.</p>

<p>Indomitable Salmon (Part A)</p> <p>Students will study the physical life cycle of the Pacific Salmon. They will also learn about the hazards involved in migrating to and from the ocean. This will be accomplished by studying the famous Indomitable Salmon from the Prairie Creek Fish Hatchery in 1964.</p>	<p style="text-align: right;">Grades 3-8</p> <p>Life Sciences: 2nd Grade 2.b, 2c, 2e. 3rd Grade 3 a., 3b, 3b, 3e. 4th Grade 2.c, 3.b. 5th Grade 2a, 4c. 6th 5a, 5b. 7th Grade 3a, 3e.</p> <p>Earth Sciences: 4th Grade 5c. 6th Grade 2b, 2c, 2d.</p>	
<p>Indomitable Salmon (Part B)</p> <p>Students simulate the hazardous migration of the Pacific Salmon. This recreation takes the smolts from fresh water to the ocean and back to freshwater creeks to spawn. Fish hatcheries, native fish, and the current status of the salmon restoration along the San Joaquin River are discussed. (Adapted from Project Wild)</p>	<p style="text-align: right;">Grades 3-8</p> <p>Life Sciences: 2nd Grade 2.b, 2c, 2e. 3rd Grade 3 a., 3b, 3b, 3e. 4th Grade 2.c, 3.b. 5th Grade 2a, 4c. 6th 5a, 5b. 7th Grade 3a, 3e.</p> <p>Earth Sciences: 4th Grade 5c. 6th Grade 2b, 2c, 2d.</p>	
<p>Water Quality</p> <p>Students perform several water quality (physical-chemical) index tests to measure the water quality of the San Joaquin River at Scout Island. These tests include pH, total dissolved solids, turbidity, temperature, and dissolved oxygen. The results are used as a means of estimating the overall health of the Scout Island stretch of the river. The results are then assessed in relation to the salmon restoration project and the water quality parameters required by the salmon to survive.</p>	<p style="text-align: center;">Grades 5-12</p> <p>Earth Sciences: 5th Grade: 3d,e,</p> <p>Investigations and Experimentation: 5th Grade: 6f-h. 6th Grade: 7h. 7th Grade: 7a. 8th Grade: 9c. 9-12th Grade: 1d, 1m.</p>	<p>Life Sciences: 6th Grade: 5e.</p> <p>Physical Sciences: 8th Grade: 5e, 7c.</p> <p>Chemistry: 9-12th Grade: 5a, 5d, 6a, 6c.</p>

Web of Life

Students learn the ecological basis behind food chains and food webs. Feeding levels (producers, consumers, and decomposers), energy requirements, and nutrition types (carnivore, herbivore and omnivore) are explained. Using this information, students create a pictorial food web using the plants and animals at Scout Island. Species interaction and competition for resources are addressed.

Grades 3-10

Life Sciences:
4th Grade: 2a, b, c, 3a, b.
5th Grade: 2f.
8th Grade: 5b.

Ecology:
9th-12th Grades: 6a-f.

Rock-On!

The rock cycle forms the foundation of this lesson. Students examine many different types of rocks and Coast Range fossils while learning about global and local plate tectonics and the processes of erosion. Emphasis is placed on California's diverse geology, mountain building, volcanic activity, and glaciations. Exploration of the San Joaquin riverbed to determine rock origin and types completes this module.

Grades 4-12

Earth Sciences:
4th Grade: 4a-b.

Physical Science: Plate Tectonics and Earth's Structure:
6th Grade: 1a-g, 2a-b., Shaping Earth's Surface: 2a-d.

Earth and Life History:
7th Grade: 4a-g.

Earth Sciences: Processes:
9th-12th Grades: 3a-f.

Canoeing

Participants are instructed in basic canoe skills, water safety, teamwork, and communication skills. After a canoe and safety orientation participants will practice paddling skills and techniques on the river. We believe that participation in the canoe program fosters water safety knowledge, land stewardship practices, and an appreciation of nature.

Grades 4-12

Physical Education
4th Grade 3.1, 3.2, 3.6, 3.7, 5.6
5th Grade: 3.1, 3.7, 5.5
6th Grade 5.1, 5.3, 5.4
7th Grade 1.3, 1.4, 1.6, 5.1, 5.4, 5.5
8th Grade 3.6, 5.2, 5.5, 5.6

9th-12 Grades:
Course 1: 1.1, 1.7, 1.10, 3.1, 3.9
Course 2: 3.1, 3.8
Course 3A: 1.1, 1.2, 1.4, 1.5, 2.1, 3.4, 3.7
Course 3B: 3.10, 3.11
Course 3C: 3.6, 3.9
Course 3E 1.1-1.7, 3.7, 3.8, 3.10
Course 4A: 1.4, 3.3

<p>Scavenger Hunt</p> <p>Students work in pairs or small groups to locate and identify various flora and fauna that inhabit Scout Island. Incorporating a multi-sensory approach to interpret the clues and evidence left in the environment, students gain a broader concept of riparian habitats from the living and non-living component parts.</p>	<p style="text-align: right;">Grades 3-12</p> <p>Life Sciences</p> <p>3rd Grade: 3.b. 4th Grade: 2b, 3a, 3.c. 5th Grade: 2e, 2f. 6th Grade: 5b, 5e. 7th Grade: 5a.</p>																
<p>I spy... (Primary Grade level Scavenger Hunt)</p> <p>Using the five senses, young students locate and collect small items that represent the plants and animals of this river community. Students work in small groups to complete this task. Throughout the activity, students will learn what the different types of plant and animal habitats are in and around a local river.</p>	<p style="text-align: right;">Grades K-2</p> <p>Kindergarten: Life Sciences: 2a-c. Earth Sciences: 3a-c. Investigation and Experimentation: 4a-e.</p> <p>1st Grade: Life Sciences: 2a-d. 2nd Grade: Earth Sciences: 3a-b.</p>																
<p>Confidence, Initiative, and Teamwork (Experience Leadership Opportunities and Character Development)</p> <p>The instructor is a national faculty member of the "Pursue Victory with Honor" program associated with the acclaimed Character Counts. C.I.T. traits are accomplished through teacher-led discussions and hands-on activities that provide teachable moments to reemphasize the qualities of self-confidence, utilizing initiative, teaching the importance of teamwork, and building an understanding of leadership. The activities will vary depending on the grade level of the students.</p>	<p style="text-align: right;">Grades 2-12</p> <p>Physical Education (2-8)</p> <p>2nd Grade: 5.1 -5.7 3rd Grade: 5.3-5.6 4th Grade: 5.3-5.6 5th Graded: 5.3-5.7 6th Grade: 5.1, 5.2, 5.4 7th Grade: 5.1-5.5 8th Grade: 5.1, 5.2, 5.4, 5.5, 5.6, 5.7</p>																
<p>Draw the River</p> <p>Using colored pencils students create an environmental art piece. Students are exposed to basic art vocabulary and techniques, learning a new way to "see" the natural environment. The components of a natural habitat (food, water, shelter) are also discussed.</p>	<p style="text-align: right;">Grades K-8</p> <table border="0"> <tr> <td>California Art Standards:</td> <td>Life Sciences:</td> </tr> <tr> <td>2nd Grade: 1:3, 2.3.</td> <td>Grade: K: 2a.</td> </tr> <tr> <td>3rd Grade: 1.3, 1.5, 2.3.</td> <td>Grade: 1: 2a, 2c.</td> </tr> <tr> <td>4th Grade: 1.5.</td> <td>Grade 2: 2d.</td> </tr> <tr> <td>5th Grade: 2.1</td> <td>Grade 3: 3b.</td> </tr> <tr> <td>6th Grade: 2.1, 2.3, 2.4</td> <td>Grade 4: 3a.</td> </tr> <tr> <td>7th Grade: 2.1</td> <td>Grade 6: 5e.</td> </tr> <tr> <td>9th- 12th Grades: 2.1, 2.4, advanced: 2.1</td> <td>Earth Science: Grade 5: 3e.</td> </tr> </table>	California Art Standards:	Life Sciences:	2 nd Grade: 1:3, 2.3.	Grade: K: 2a.	3 rd Grade: 1.3, 1.5, 2.3.	Grade: 1: 2a, 2c.	4 th Grade: 1.5.	Grade 2: 2d.	5 th Grade: 2.1	Grade 3: 3b.	6 th Grade: 2.1, 2.3, 2.4	Grade 4: 3a.	7 th Grade: 2.1	Grade 6: 5e.	9 th - 12 th Grades: 2.1, 2.4, advanced: 2.1	Earth Science: Grade 5: 3e.
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<p>Reading by the River</p> <p>An instructor guides the students through a selection of environmental-based literature to generate a discussion of stewardship and personal responsibility from the readings. The selections always focus on some aspect of rivers and/or riverside plants and animals. This activity is designed to increase reading skills and build an awareness of the common waterways and lands we all share.</p>	<p style="text-align: center;">Grades K-6</p> <p>English Reading Standards: Listening Strategies and Comprehension: 1st Grade: 1.2. 2nd Grade: 1.1-1.2, 2.2-2.6. 3rd Grade: 1.5, 2.2-2.4. 4th Grade: 2.1-2.3 5th Grade: 1.1, 2.4-2.4. 6th Grade: 1.1-1.2, 2.3.</p> <p>Life Sciences: Kindergarten: 2a-b, 3a-c, 4a-b. 1st Grade: 2a-c. 2nd Grade: 2a. 3rd Grade: 3b, c. 4th Grade: 2a, b, 3a. 6th Grade: 5a-c.</p>
<p>Walking Where They Lived</p> <p>This nature walk guides students along the river corridor and to the Native American site at Scout Island. Native plants, their historic usages and cultural implications are emphasized. The activity focuses on the relationship and dependence of the indigenous peoples to their natural surroundings. Stories from local tribes, their basketry and use of grinding stones are shared.</p>	<p style="text-align: center;">Grades 4-8</p> <p>History and Social Science Standards: California: A Changing State 4.2.1, 4.2.5</p> <p>Life Science 4th Grade 3a, c. 6th Grade 4a, b.</p>
<p>Suitcase for Survival: Illegal Wildlife Trade and Endangered Species</p> <p>Using confiscated wildlife artifacts, products and parts provided by the U.S. Fish and Wildlife Agency, this national program raises awareness about wildlife trade and the loss of biodiversity. This presentation addresses the general reasons many species are endangered and/or threatened and focuses specifically on the billions of dollars of uncontrolled illegal trade in wild plants and animals. Students will gain an understanding of why biodiversity is important and how their actions can contribute to biodiversity conservation. Children will get a chance to handle elephant tusks, sea turtle items, python skins, leopard pelts, and more.</p>	<p style="text-align: center;">Grades 4-12</p> <p>Life Sciences: 4th Grade: 2b. 5th Grade: 5a, c. 6th Grade: 5c, d, 6b. 7th Grade: 2a, 3e. 9-12th Grades 6a, e, 8a.</p>

<p>Predator vs. Prey Game</p> <p>After students have participated in one of the bird or mammal activities, students will be able to define an adaptation and list various examples. Using lists of predator or prey adaptations, students will be able to vie the predators' adaptations against preys'. The games will assist students in simulating real life predator-prey interactions, while understanding the concept of change over time in a population.</p>	<p style="text-align: right;">Grades 4-12</p> <p>Life Sciences: 4th Grade: 2b, 3b, 5th Grade: 6g. 6th Grade: 5d. 7th Grade: 3a, e.</p>
<p style="text-align: center;">Expeditions from Scout Island: (Day Trips Off-Site)</p> <p>Friant/Fish Hatchery Exploration</p> <p>Central Sierra Geology-Yosemite</p> <p>Central Coast Geology and Marine Biology</p> <p>Monterey Bay Aquarium</p> <p>Whale Watching in Monterey Bay</p> <p>Steinhart Aquarium and Academy of Sciences-San Francisco</p>	<p style="text-align: right;">Grades 5-12</p> <p>For more information about the Scout Island Expeditions click here</p>