

WOTW-Restoration 4A

Resource Title: Natural Resources, and Human Uses of Plants & Animals on Santa Cruz Island

Resource Summary: First, students will watch the restoration portion of the film, discuss the key ideas, and demonstrate their understanding through a model. As a supplement, students will visit local Chumash sites to deepen their understanding of the natural state of the Channel Islands, how the Chumash lived in harmony with the natural world, and how we have influenced this delicate balance.

Subject Areas: History/Social Studies, Language Arts, Science

Grade Level Range: 4-8

Standards:

Reading for informational text, 4.7

Next Generation Science Standards (NGSS) 4-ESS3-1. Obtain and combine information to describe that energy and fuels are derived from natural resources and their uses affect the environment. Note: Students will discuss how the Chumash use of natural resources did not adversely affect the environment, whereas many of our current practices do.

NGSS 4-LS1-1: Construct an argument that plants and animals have internal and external structures that function to support survival, growth, behavior and reproduction.

Resource Provided By: David Beecker, Substitute, Carpinteria Unified School District

Details:

- 1) Watch Restoration Tale in “The West of the West.” Students will take notes, considering the following questions:

Are people part of the natural state? Can the natural state evolve and change and still be a natural state? The Black Rat evolved into its own unique subspecies over time. Was the Black Rat part of the new natural state of the island?

Students discuss their observations and opinions, first with a partner, then with the group.

- 2) How are the following connected?

Farmers, Bald Eagles, feral (wild) pigs, golden eagles, island foxes, native vegetation, non-native vegetation, phytoplankton (producers), zooplankton, fish and birds (consumers) Note: review food chain with students for prior knowledge, and how DDT/DDE travels up the food chain

- 3) Students demonstrate their understanding of how people, animals and plants are connected at Santa Cruz Island using a model of their choice (web, flow chart, diagram, etc.)

From the Restoration tale students learn about the following connections: Farmers used DDT. DDT washes downstream to the ocean and becomes more concentrated in larger animals. DDT weakened bald eagles' eggs leading to a decline in population. With the decline of bald eagles, golden eagles established themselves on the island; they eat foxes. Wild pigs on the island root up vegetation foxes may use for shelter.

Supplemental Activities- Mainland field trips:

Chumash Walking Tour of Carpinteria

1) Carpinteria Valley Museum, 956 Maple Ave. Carpinteria, CA 93013

<http://carpinteriahistoricalmuseum.org> (805) 684- 3112

Explore local Chumash history and historical uses of Carpinteria's resources.

2) Walk to Portola Sycamore (0.8 mile, 10 minutes)

On Maple head towards 8th street (southwest), Turn left on 8th St. Right on Palm Ave. Left on 6th St. Go to the end.

3) The Portola Sycamore, 5300 6th St. Carpinteria (next to Sanitary District building).

The site, named after the Spanish explorer Gaspar de Portola, is where his expedition found Chumash building their tomols. Tomols are Chumash wood plank canoes. Yop was a mixture of pine pitch and tar used to seal the planks together.

4) Walk to Tar Pits (1.1 miles, 20 minutes).

On 6th St. head towards Palm Ave. Cross the street for a full sidewalk. Cross railroad tracks at designated train crossing on Palm. Enter Carpinteria State Park. Tar Pits Park is located south east of this location. The Carpinteria Bluffs Trail to the Tar Pits Park is on the left. The trail starts as a paved path alongside camping sites. If tide allows you may choose to walk the beach. If you decide to drive, enter this way, drive southeast, park at the end. You may need a parking pass. Other Google directions include walking entrances over unguarded railroad crossings.

5) Tar Pits Park, Carpinteria State Beach

Carpinteria natural oil seepage has been used by Chumash as well as workers building the coastal highway.

6) Chumash Ceremonial Site, Hammond's Meadow, Montecito

Hammond's Meadow, also called Shalawa Meadow, is a historical Chumash burial site. The site was dedicated in 1979.

From San Ysidro Road in Montecito head south, towards the beach. San Ysidro Road will turn into Eucalyptus Lane and end at a small parking lot. The short trail to Hammond's Meadow leads to the right. You can also walk the beach.