

# Ohlone Program

Field Trip and Educational Kit Overviews

Plus Supplemental Activities



**SANTA CRUZ MUSEUM**  
of natural history

## **About the Museum**

The Santa Cruz Museum of Natural History is a leader in environmental education in Santa Cruz County, serving more than 30,000 children and adults each year.

Our school programs connect youth with nature, engage them in scientific exploration and discovery, and cultivate the next generation of environmental stewards. We cover a wide variety of natural history topics such as watershed science, animal adaptations and habitats, and the history and culture of Native Peoples. All of our offerings aim to create a personal understanding of the natural world around us and our role in it.

All of our programs support state standards and diverse learning styles. Click [here](#) for in-depth NGSS, CCSS, and HSS alignment.

## **Transportation Scholarships**

The Museum is happy to offer transportation scholarships to classes who request assistance, but cannot guarantee the availability of funds. Please let us know if you are interested in a scholarship to help either fully or partially cover the cost of a bus.

## **Sponsors**

Thanks to our school program supporters: Captain Planet Foundation · City of Santa Cruz · Community Foundation Santa Cruz County · David & Lucile Packard Foundation · Helen and Will Webster Foundation · Monterey Peninsula Foundation, host of the AT&T Pebble Beach Pro-Am · Project Learning Tree, a program of the Sustainable Forestry Initiative, Inc. · Santa Cruz Beach Boardwalk · Save the Redwoods League

# Welcome to the Ohlone Program

The Ohlone Program is one of the Museum's oldest and most popular programs. We strive to **respectfully and accurately** represent local native tribes, their history, and their culture. Thanks to the generous support of the Santa Cruz County Community Foundation, we are able to **revisit and revise** this program to best reflect current knowledge about Ohlone culture. The key terms and themes of this program have been thoughtfully and intentionally created with input from **tribal consultants**, as well as feedback from teachers and docents who have participated in this field trip. We have done our best to preserve some of the "favorites", while updating the content and adding activities to include more interactive, inquiry-based, and student-driven learning. Teacher feedback has been invaluable in this process, and we thank you for your support as we continue to grow.

## Part I: Ohlone Program Overview

**Title:** Ohlone Program

**Grade:** K-4th

**Topic:** Students learn about the culture of the original human inhabitants of Santa Cruz. Through exploration in our native plant garden, exhibits, and artifacts, they see different tools and practices used to survive, and gain understanding of a native culture. In the process of learning about Ohlone people's connection to nature, students come to understand that humans are a part of the ecosystem. They also develop cultural awareness and are able to see similarities and differences between cultures, both as they were and as they are.

**Why is this a relevant and interesting topic?** Not only is learning about Native Americans a state standard for all students, it is also important to have a perspective of different cultures. Native people today work to protect and preserve their culture, traditions, and practices, and by teaching children about these things we help them to do so. Even for those who have no native ancestry, learning about these cultures can be relevant to all our lives. We can benefit from exposure to a diversity of cultures, particularly those that have a different type of connection to the environment. Especially in a time when people are further disconnected from natural processes and from how things that they use daily are made, children are interested to learn about and practice resourcefulness, and begin to truly see the nature that surrounds them, not only as a backdrop, but as a resource and a system of which they are a part.

**Stewardship Outcomes:** At the conclusion of this program, students will not only have an appreciation for the history of native people in this area, but also for their connection to nature. Students will be better prepared to:

1. Notice plants and animals, and consider their value/use for food, tools, shelter, etc.
2. Make choices that demonstrate an understanding that the health of their environment influences their own health and that of their community.
3. Take action to conserve resources with an understanding that all animals, including humans past and present, need clean food, air, water, and space to survive.

**Additional Outcomes:** *By the end of the program, students will:*

1. Relate their own needs to the needs of people in the past and people in different cultures, including the need for food, water, shelter, and community.
2. Identify Ohlone as the culture practiced by Native Americans in this area, and name the tribe that lived where their school is.
3. Empathize with other cultures rather than reducing them to stereotypes and know that Ohlone culture is still practiced.
4. Identify at least one example each of native plants that were used for food, shelter, and tools.
5. Identify at least one animal that was important to survival and Ohlone culture.
6. Demonstrate *thankfulness* for their experiences in nature.

**A Note on Terminology:**

The terms “Ohlone” or “Ohlone culture” are applied to artifacts, practices, and knowledge that pertain to the 50 tribes spanning from Big Sur to San Francisco. This is a modern grouping and members of each group do not necessarily identify as “Ohlone”, but the term is applicable due to the similarity in their material culture.

“Awaswas” was the language spoken by groups in the Santa Cruz area, and is their preferred name. We apply this term when we have evidence that supports that a specific practice or artifact existed specifically in the Santa Cruz area. Due to activities of the Spanish missions, direct lineage from many of these groups have been lost, along with physical evidence of their culture. Descendents of Awaswas and Mutsun speakers taken to Missions Santa Cruz and San Juan Bautista now identify as “Amah Mutsun” and have formed a tribal band.

## Standards

We are actively working on developing our curriculum and helping teachers to identify ways in which our program supports and relates to Common Core, CA History-Social Science Frameworks, and Next Generation Science Standards. [Click here](#) for a more detailed look at the standards and how this program supports them.

Next Generation Science Standards		
Performance Expectations		
<p><b><a href="#">K-ESS3-1</a></b>: Use a model to represent the relationship between the needs of different plants and animals (including humans) and the places they live.</p> <hr/> <p><b><a href="#">3-5-ETS1-2</a></b>: Generate and compare multiple solutions to a problem based on how well each is likely to meet the criteria and constraints of the design problem.</p>		
Science and Engineering Practices	Disciplinary Core Ideas	Crosscutting Concepts
<p><i>K-2 Grade Band</i> <b>Developing and Using Models</b></p> <hr/> <p><i>3-5 Grade Band</i> <b>Constructing Explanations and Designing Solutions</b></p>	<p><i>K-2 Grade Band</i> <b>ESS3.A: Natural Resources</b></p> <hr/> <p><i>3-5 Grade Band</i> <b>ETS1.B: Developing Possible Solutions</b></p>	<p><i>K-2 Grade Band</i> <b>Systems and System Models</b></p> <hr/> <p><i>3-5 Grade Band</i> <b>Influence of Science, Engineering, and Technology on Society and the Natural World</b></p>
History-Social Science Standards		
<p><b>HSSK.6.3</b> Students understand how people lived in earlier times and how their lives would be different today (e.g., getting water, growing food, making clothing).</p> <p><b>HSS1.2.4</b> Students describe how location, weather, and physical environment affect the way people live, including the effects on their food, clothing, shelter, transportation, and recreation.</p> <p><b>HSS1.4.3</b> Students recognize similarities and differences of earlier generations in such areas as work, dress, manners, stories, games, and festivals.</p> <p><b>HSS3.1.2</b> Students trace the ways in which people have used the resources of the local region and modified the physical environment.</p> <p><b>HSS3.2.2</b> Students discuss the ways in which physical geography, including climate, influenced how the local Indian nations adapted to their natural environment.</p>		

# Part II: Ohlone Program Field Trip Content

## Outline

We will do our best to adhere to the following outline. Please let our staff know as soon as possible if your class has specific needs with respect to timing, such as needing to leave early. Late arrivals or early departures may result in the exclusion of some parts of the program.

Greeting/Nature Walk: 10 minutes

Station 1: 25 minutes

Station 2: 25 minutes

Free Time: Up to 30 minutes

*Total program time: 1.5 hour*

## Greeting/Nature Walk

**Time:** 10 minutes

**Location:** Amphitheatre/ Garden

**Objectives:** Provide an overview of the program and introduce concepts of survival, change through time, and natural resources. Weather permitting, also explore the Museum's native plant garden and identify certain native plants and their uses.

**Vocabulary:** Ohlone, Awaswas, Uypi, Aptos, Amah Mutsun, survival, culture, native, oak, willow, sage, tule

## Plant Station

**Time:** 25 minutes

**Location:** Front Room/ "Ohlone Room"

**Objectives:** Students will a) explore the exhibit and artifacts, b) examine tule and apply critical thinking to understand how this plant was used, c) experience turning acorns into food, and d) making fire. In doing so, students will learn about native plants and their uses as food, shelter, and tools. They will begin to explore the important relationship between the Ohlone and nature, and realize why the Ohlone expressed thankfulness for their resources.

**Vocabulary:** oak/acorn, weaving, management, resource, gratitude, oral tradition, ecosystem

**Artifacts/tools:** mural, baskets, mortar and pestle, soaproot brush, food examples, fire making tools, tule artifacts: baskets, rope, mat, and duck decoy

## Animal Station

**Time:** 25 minutes

**Location:** Back Room/ "Animal Room"

**Objectives:** Students will a) explore the exhibit, b) apply critical thinking skills to understand and model hunting practices, and c) discuss resourcefulness and using animals not only to survive, but to thrive and have a rich culture. In doing so, students learn about hunting traditions of the Ohlone people, and see examples of ways that animals were used beyond food (such as musical instruments). They will be introduced to animals not only as food and resources, but also as cultural symbols found in storytelling and central to Ohlone culture.

**Vocabulary:** hunting, sustainability, sweat lodge, camouflage, decoy, oral tradition, native, senses

**Artifacts/tools:** animal pelts, antlers, bow, arrow, spear, atlatl, fishing basket, tule duck decoy and net

## Free Time

**Time:** Up to 30 minutes

**Location:** Whole Museum

**Objectives:** Students are invited to further explore the artifacts and activities from the program, grind acorns using mortars, attempt to make fire, and explore the rest of the Museum, including the Intertidal Touch Pool with live sea animals.

# Part III: Ohlone Educational Kit Outline and Supplemental Activities

## Why do we provide the Ohlone Kit?

This activity kit is designed to familiarize your students with topics presented in the “Ohlone Program” field trip, and to provide a depth of experience and opportunity to apply knowledge after the trip. The activities within this kit will give your students a better understanding of such topics as **sustainability**, **stewardship**, and **oral tradition** using unique artifacts and hands-on exploration.

We encourage field trip participants to rent our Ohlone Kit. This kit includes artifacts, books, and other resources that will support classroom learning in preparation for the field trip, or as a continuation of learning after the trip. We are also happy to share additional resources and links to information that we have found to be accurate and up to date. Please visit the [Educational Resources page](#) on our website for more information and helpful links.

## How does it work?

These activities can be adjusted to different age or learning groups by adjusting the level and amount of reading and writing, and choosing appropriate vocabulary. For example, if you feel that there are too many words for a younger age group, focus more on observational learning; included worksheets can be omitted. Conversely, if you feel as though your students could benefit from more written analyses, feel free to assign the extensional writing prompts provided with particular activities, which help to further understanding and scientific observational skills.

## Ohlone Kit Contents

1. Supplemental Activity Curriculum Descriptions
2. Books to support curriculum:
  - *Life of the California Coast Nations*, by Bobby Kalman
  - *Rumsien Ohlone Stories*, told by Linda Yamane
  - *Little Deer and the First Native American Flute*, by Al Striplen
3. Visual Aids to support curriculum, including a map, photos, and worksheets
4. Artifact replicas and specimens:
  - Abalone shell
  - Bag of acorns
  - Bag of Shells
  - Bag of Stones
  - Chia seeds
  - Clapper stick
  - Deer and/or elk skin



- Fire drill and hearth
- Moon snail shell
- Mortar and Pestle
- Rabbit pelt
- Shell necklace
- Stave game
- Stone/ Obsidian points
- Tule craft (basket, cordage, and boat or doll)
- Tule samples

### **List of Activities and Key Concepts Covered**

**1. Tending Nature - Stewardship**

Students identify the needs of living things and explore the relationship between Ohlone people and nature.

**2. Tule Tools - Form and function**

Students explore how plants are used beyond food and learn a useful application for a familiar plant.

**3. Painting With Nature\* - Archaeology**

Students experiment with materials to create pigments and create modern artifacts.

**4. Tree of Music - Culture**

Students learn about native plants and practice making music the Ohlone way.

**5. Stave Game - Culture**

Students explore a part of Ohlone culture that goes beyond survival.

\* These activities are described below. The Ohlone Kit includes visual aids and materials for some activities, but many can be recreated with materials in most classrooms.

# Tending Nature

## Learning Objectives

By the end of the activity, students will understand:

- That all living things need space, food, water, and shelter.
- Ohlone people had a deep knowledge of nature that helped them to survive.
- Ohlone people respected plants and animals like members of their family, and “tending” to them was done with the same attitude as caring for loved ones.

## Key Terms

- **Nutrients:** a substance that provides nourishment essential for growth and maintenance of life.
- **Stewardship:** (environmental stewardship) responsible use and protection of the natural environment through conservation and sustainable practices
- **Habitat:** the natural home of a living thing. Usually a place where organisms can get the food, water, shelter, and space they need to survive.

## Background Information

Ohlone people had a deep understanding of the life cycles of the plants and animals upon which they depended. They were **stewards** of their environment. While their practices were not considered to be reflective of modern agriculture, they did **tend** to plants and animals in ways that promoted beneficial growth by doing things such as tilling the soil, pruning plants, and using fire to suppress undesirable plant growth.

## Materials

- Bean seeds (not provided)
- Potting soil (not provided)
- Paper cups, cut up egg carton, or other container (not provided)

## Procedure

1. Ask students, “What do people need to survive?” Write the list on the board.
2. When the words food, shelter, space, and water come up, circle these words. Lead them to these terms if they do not volunteer them.
3. Discuss and list on the board what plants need to survive. Circle the words food, shelter, space, and water when they say them again.

4. Discuss and list on the board what wildlife (animals that live on their own in nature) need to survive. Circle the words food, shelter, space, and water when they say them again.
5. Point out that all living animals need food, water, shelter, and space. That is called a habitat. Habitat is food, water, shelter, and space that a plant or animal needs to survive.
6. In small groups or as a class, have students discuss how or where they get the things that they need to survive.
7. Where do they think that Ohlone people got things to survive hundreds of years ago?
8. Ohlone people tended to nature and were stewards of their environment. This was so important that they felt like plants and animals were similar to family.
9. Review the needs of living things as you create a habitat for your beans and plant the seeds.
10. Students may tend to their plants throughout their unit or whole school year. Some may choose to research methods about keeping plants alive--Ohlone people also did research and shared information on how to best grow the plants that they needed.

*Extensional activities and writing prompts:*

- *Writing: Describe your habitat. Where do you get the things you need to survive?*
- *Art: Draw your habitat. Label your drawing with the things that you need to survive.*
- *Science: Keep a log tracking the care and growth of your plant. Record when you water it, and how much. You may also include data such as weather and temperature. When your plant sprouts, take measurements and describe its progress.*

# Painting With Nature

## Learning Objectives

By the end of the activity, students will understand:

- Ohlone culture was based in oral tradition, however pictures and art were also used for cultural expression.
- Pictographs and petroglyphs are evidence of past cultures.
- Ohlone used natural pigments found in nature to create paints and dyes.

## Key Terms

- **Pictograph:** a pictorial symbol for a word or phrase, often painted onto stone, hides, sticks, or even tattooed by practitioners of Ohlone culture
- **Petroglyph:** a picture carved into rock
- **Archaeology:** the study of human history and prehistory through the excavation of sites and analysis of artifacts and other physical remains
- **Pigment:** natural, organic coloring matter. Often derived from plants, minerals, and animals

## Background Information

Although Ohlone culture was based in oral tradition, pictographs and decorated bowls, clothing, and tools were a part of their culture. Natural pigments from plants and minerals were used to create dyes and paints. Many plants and berries could be ground and even further processed to create dyes. For example, poison oak tea turns a dark color when left to sit, and was used to dye clothing and baskets.

## Materials

- Plants and minerals (found around school--not provided)
- Metal spoons and paper plates (not provided)
- Water or vegetable oil to mix pigments (not provided)

## Procedure

1. What are ways to pass on information without writing? Brainstorm ideas as a class.
2. Share pictures of pictographs and artifacts as examples of dyed materials made by Ohlone people. Discuss: Why do you think that Ohlone people decorated these things and even themselves (tattoos)?
3. Explore your schoolyard to find plants and rocks to make dye! \*Make sure that students avoid harmful plants such as poison oak or stinging nettle. For younger students, you

may opt to bring in a few different types of berries and vegetables (beets, cabbage, spinach, blueberries) instead.

4. In pairs or groups students can experiment with making dye. They can try grinding using a spoon or rock, or soaking things in water or oil. \*Avoid touching face or mouth after grinding up plants! Always wash hands after doing projects like this.
5. Students can use their pigments to paint on paper--some dyes change color when they dry, so be patient!

*Extensional activities and writing prompts:*

- *Create a cartoon strip without words to communicate a story or instructions to a task.*
- *Use your paints to decorate your own Stave Game (paint one side of wide craft sticks) and/or clapper sticks.*