



Living with the Land

An Environmental Study through Ohlone Worldview

Grade level: 6th grade

Program Type: Hybrid

Overview:

The area called Crissy Field has changed greatly over time, reflecting the differing values of the people who have managed the land. Today, the restored marsh offers a rich habitat and an abundance of learning opportunities.

How does culture influence our relationship with the environment?

Living with the Land allows students to explore human relationship with the natural world from the perspective of Ohlone Indigenous knowledge and contrasting western science approaches. By observing the wetland's past and present, students learn about what wetlands provide and how humans impact this habitat.

Program Goals:

- ❖ Students will enrich their understanding of human relationship with land.
- ❖ Students will recognize the importance of considering Indigenous worldviews to confront environmental challenges.
- ❖ Students will have an understanding of national parks as places for interdisciplinary study.

Program Objectives:

- ❖ Students will learn about the critical functions of wetlands.
- ❖ Students will learn how humans impact natural systems like the wetland habitat.
- ❖ Students will learn the values that make up Ohlone worldview.

Curriculum Standards:

Next Generation Science Standards

- ESS3.C: Human Impacts on Earth Systems
- ESS3.D: Global Climate Change

California Common Core Standards

- Reading Informational Texts
RI.6.7 - Integration of Knowledge and Ideas
- Speaking and Listening
SL.6.2 - Comprehension & Collaboration



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Program Description

The program has three sections: pre-site classroom activities facilitated virtually by NPS staff and the teacher, a field visit to Crissy Marsh facilitated by NPS staff, and a post-visit lesson facilitated by the teacher.

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Pre-site Program (facilitated virtually by NPS staff)

Objectives:

Upon completion of this lesson, students will be able to

- ❖ describe the Bay Area landscape, precontact
- ❖ define *Indigenous Knowledge* and *Western Science*
- ❖ describe Ohlone values and relationship to land

Time: 45 minutes

Resources: LwtL Pre-site PowerPoint, reading passages, images, video interview clips

Activities:

- Self-reflection share: Where are you rooted?
- Through readings and images, students learn what the land looked like precontact.
- Discussion: What do you think Ohlone people could learn and pass down through generations living in this environment? How do you think they managed this land?
- Students sort quotes to define and contrast *Indigenous Knowledge* and *Western Science*.
- Students differentiate between the perspective of living *with* the land vs western perspective of living *on* land.

Post-Lesson 1 Work (assigned by teacher)

- Students view interview with Gregg Castro describing Ohlone values
- Students read “Generations of Knowledge: Understanding Plants and Animals as Well as You Understand Your Own Human Relatives”
- Students list Ohlone values and reflect on their own personal values.

On-Site Program (facilitated by NPS staff)

Students will visit the Crissy Field wetland to observe and investigate the habitat. During on-site activities, students will complete their field journals with observations, drawings and responses to enhance their learning.



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Objectives:

Upon completion of this program, students will be able to

- ❖ describe cultural uses and care of native plant species
- ❖ describe functions of wetland ecosystems
- ❖ explain human impacts on wetland ecosystems
- ❖ provide an historical example of changing land use based on human values
- ❖ provide examples of wetland bioindicators

Time: 3 hours

Resources: student journals, nametags, pencils

Activities:

- I. Welcome and introduction to the day
- II. Station Rotations- Students write observations and responses in their field journals.

Station 1- Ethnobotany: Students become acquainted with plants significant to Ohlone culture and plant native seedlings on the banks of the wetland.

Station 2- Bioindicators: Students discover what bioindicators can tell us about ecosystem health by examining water samples for macroinvertebrate identification and observing bird species.

Station 3- Values of a Wetland: Students make observations of the wetland before engaging in a discussion on what the habitat provides and the human impacts, including effects of climate change.

- III. Gallery Walk
Students view photos of what is going on in Indigenous communities today both locally and globally.
- IV. Closing Reflection

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Post-Site Activity (facilitated by teacher)

Students respond to at least one of the following questions in written or art form (ex. paragraph, poetry, zine, visual art, poster)

1. How can Ohlone and other Indigenous worldviews help uncover solutions to environmental challenges?
2. Do you live **on** or **with** the land? How has your investigation at Crissy Marsh affected how you see your relationship to land?