

## The Oaks of Oakland

Watch the segment online at <http://education.savingthebay.org/the-oaks-of-oakland>

Watch the segment on DVD: Episode 2, 9:57–12:32

Video length: 2 minutes 54 seconds

### SUBJECT/S

Science

History

### GRADE LEVELS

4–5

### CA CONTENT STANDARDS

#### Grade 4

##### *Life Sciences*

2.a. Students know plants are the primary source of matter and energy entering most food chains.

##### *History – Social Science*

4.4.4. Describe rapid American immigration, internal migration, settlement, and the growth of towns and cities (e.g., Los Angeles).

### VIDEO OVERVIEW

Oak trees are an integral part of the ecology of California. At one point, Oakland and Alameda were home to an impressive stand of live oak trees.



In this segment you'll learn:

- that oak trees are essential to the lives of many species.
- how oak forests define the California landscape.
- about the incredible oak woodland that was once in Oakland and Alameda.

### TOPIC BACKGROUND

There are 19 varieties of oaks found in California. True oaks are of the genus *Quercus* and have simple to lobed leaves. Oaks produce small male flowers that are borne on catkins and female flowers that ripen into hard-shelled nuts called acorns. Acorns were a staple for California Indians, who would leach out the tannic acid before making an acorn mush and bread. Many animals rely on acorns for food, including birds, rodents, and deer. Oak wood is commonly used in furniture and flooring.

The city of Oakland was once a beautiful oak woodland that the Ohlone people inhabited for thousands of years. After the Spanish arrived, the Ohlone were displaced and Oakland became a *rancho* of the Peralta family until around the time of the Gold Rush. The Mexican and Spanish residents of the region called the Peralta land *encinal*, which means oak woodland. Then in 1852, the California legislature incorporated the town of Oakland, and it became an important railroad terminus and later a critical seaport. After the 1906 earthquake, many San Franciscans moved to the East Bay city. As the city grew, the oak trees, although appreciated for their beauty, were in the way—they interfered with dense urban development and with the city's desire to lay out its streets in a grid pattern. Most, if not all, of the original trees that gave Oakland its name were removed. Today, oak trees can be found around the shores of Lake Merritt, which was made a city park in the early 20th century.

## VOCABULARY

**savannah**

a grassland with scattered trees

**woodland**

an area of land covered with trees

## PRE-VIEWING ACTIVITIES

- In groups, students discuss trees that have been important to them. What role did the tree/s play in their lives?
- As a class, discuss who depends on oak trees. What resources do oak trees provide?

## VIEWING ACTIVITY

- Watch the segment once without taking any notes.
- Watch the segment a second time, stopping the video to answer the Focus Questions for Viewing as a class. Discuss any words that may be confusing to students.

## FOCUS QUESTIONS FOR VIEWING

- How many varieties of oaks are there in California? *19*
- How much of the land area of California is covered by oaks? *one-eighth*
- When José Canizares crafted the map of San Francisco Bay in 1775, where did he note a particularly imposing stand of oak woodlands? *the East Bay shoreline*
- Woody Minor refers to Oakland and Alameda as having been “national park quality” in their natural state. Why? *The oak woodlands were beautiful.*
- Where was the only place you had a dense forest right near the edge of the Bay? *Oakland*
- How long can oaks live? *hundreds of years*
- In 1873, the *Oakland News* reported on petitions for what at Oakland City Council meetings? *the removal of trees*

## POST-VIEWING QUESTIONS

- Why do you think the oaks in Oakland were removed?
- Do humans still cut down trees? What are trees used for?
- Are trees important in cities? Should people plant new trees in cities? Why or why not?
- Are there any places where you can find really old oak trees in the Bay Area?

## POST-VIEWING ACTIVITIES

- Find a nearby oak tree to study. Research what kind of oak it is and who might depend on it. Measure the size of the tree and estimate its age. Observe any animals and birds in and around the tree.
- Make a poster of a food chain that includes an oak tree. What role does the oak tree play in the food chain?

## ABOUT THE AUTHOR

**Phaela Peck** is a science teacher, environmental educator, and writer based in San Francisco. She has an M.A. in environmental education and has developed curricula for numerous science and environmental education organizations in the Bay Area.

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## ADDITIONAL RESOURCES

### **California Oak Mortality Task Force**

<http://www.suddenoakdeath.org>

Find out the latest information on sudden oak death and what is being done to combat it.

### **Common Tree Oaks of California**, Hastings Natural History Reservation

<http://www.hastingsreserve.org/oakstory/OakID.html>

This website provides brief descriptions of a variety of California oak species as well as detailed illustrations of leaves, acorns, and species distributions.

### **ForesTree Dichotomous Key**, Urban Forests Ecosystems Institute

<http://www.ufe.org/ForesTree/TreeID.lasso>

Use this dichotomous key to identify up to 34 native California trees.

### **Gallery of Urban Trees**, Friends of the Urban Forest

<http://www.fuf.net/resources/gallery/>

Friends of the Urban Forest provides information and pictures of local urban trees.

## CREDITS

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**NARRATOR:** In California, perhaps no other plant is as essential to the life of so many species as oak. With 19 different varieties, covering one-eighth of the land area of the state, oak forests and woodlands define the landscape. Today, even after a century and a half of monumental change, some remnant stands that once provided a staple of existence to the native peoples of San Francisco Bay remain. Others have vanished entirely.

In 1775, when José Canizares crafted this map of San Francisco Bay, he carefully noted each of the oak woodlands dotting the shoreline. One in particular stood out: an imposing stand along the eastern shore of the Bay. In 1856, when this chart of San Francisco Bay was first produced by the United States Coast Survey, the oak woodland was still largely intact.

**WOODY MINOR:** You have to think of Oakland and Alameda, the western end of the East Bay, as having been exquisitely beautiful in their natural state, and I often refer to them as “national park quality” because what you had was probably the largest coastal live oak forest in California.

**ROBIN GROSSINGER:** It was the oak land around the Bay. There was only one place like that. You know, you had maybe some valley oak savannah with widely scattered oaks in the South and the North Bay, but the only place where you had a dense forest right near the edge of the Bay was Oakland.

**NARRATOR:** Though oaks live for hundreds of years, today not even one original oak from the oak woodland that was Oakland remains. “At almost every meeting of the Council,” noted the *Oakland News* in 1873, “are petitions for the removal of trees.”

In fact, the changes taking place in the woodland on the Bay’s eastern shore were just the beginning of an astounding period of urban and regional development that, by century’s end, would transform San Francisco Bay from a remote wilderness and mining frontier into an agricultural and industrial empire dominating the American West.