

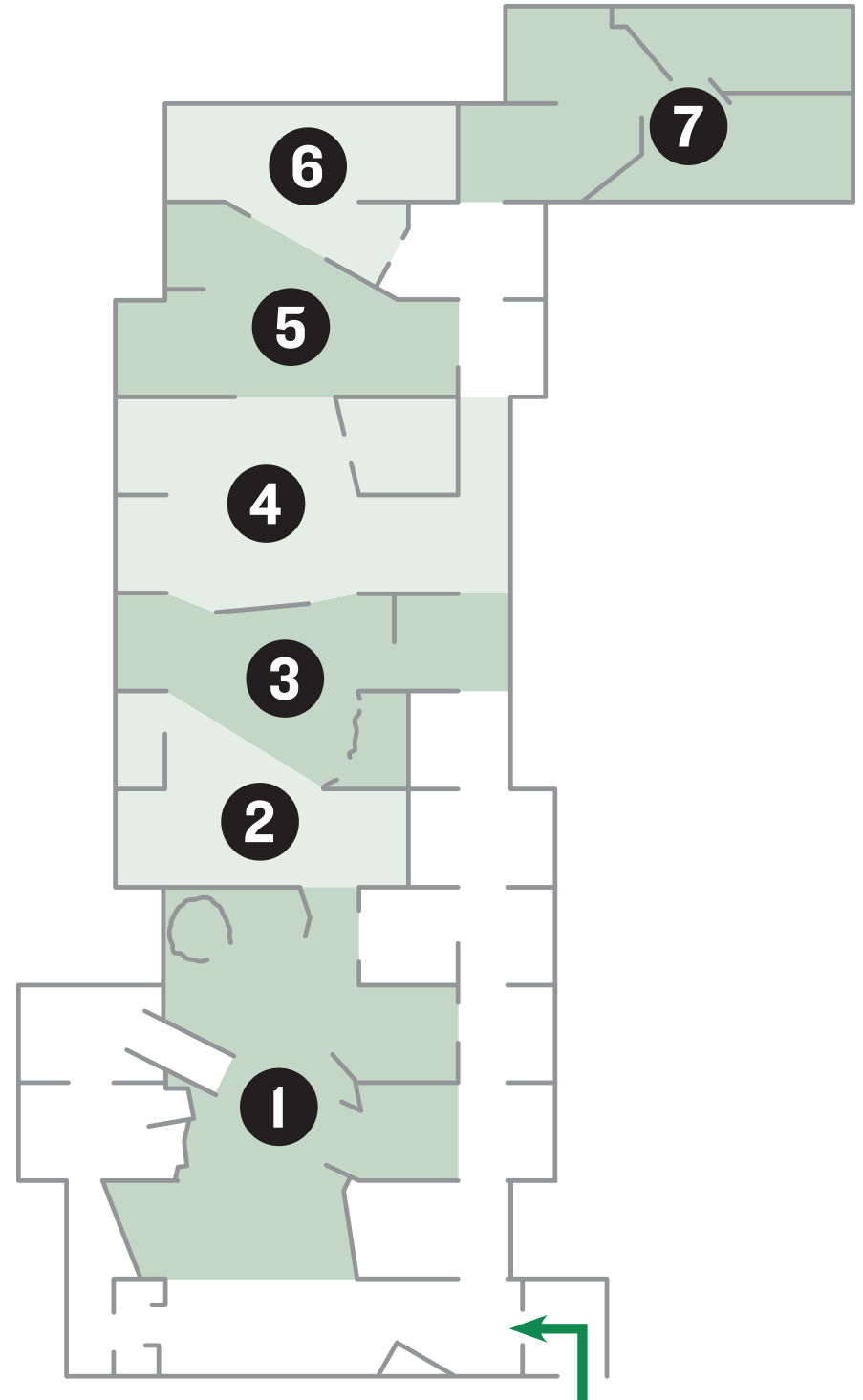
GRADES 8–12

GALLERY OF CALIFORNIA NATURAL SCIENCES

Welcome! Use this guide to explore diverse habitats and become a California naturalist.

- 1** OAKLAND
- 2** SUTTER BUTTES
- 3** SHASTA
- 4** YOSEMITE
- 5** TEHACHAPIS
- 6** COACHELLA VALLEY
- 7** CORDELL BANK

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CA.**



Oakland's habitats and environments have changed dramatically over time.

Find a map to investigate how the environment has changed. Take some time to read the labels and look at the different icons.

TITLE OF MAP: _____

List three ways urban development (building cities and structures) has changed Oakland's environment.

1.

2.

3.



What made some of these changes necessary?



How do humans continue to change the environment in the Bay Area?

Even though Oakland continues to change, you can make its habitats a better place for plants and animals. **What are some ways that humans can enhance or protect healthy ecosystems while interacting with nature?**



SUTTER BUTTES



Sutter Buttes is a tiny mountain range home to many different communities. **Compare and contrast how different communities interact with the environment.**

	INDIGENOUS COMMUNITIES	AGRICULTURAL COMMUNITIES	PLANT & ANIMAL COMMUNITIES
What resources do these communities utilize?			
What types of activities do they engage in?			
How might their interactions change throughout the year?			

3

SHASTA

Many cities in California use water from far away.

Locate the “Water Around the State” map on the wall. Using the map below, recreate one path water takes from its source to its destination.



What structures are used to store and transport water?



How might these structures affect the wildlife and people where they are built?

List three ways you use water throughout the week.

1.

2.

3.

What happens to the water when you're done using it?



Many industries use water to manufacture goods that we use. Can you think of some goods you used today, or brought with you to the museum?

4

YOSEMITE

Yosemite Valley has been the homelands of the Southern Sierra Miwuk people for thousands of years. Yosemite National Park was established in 1890.

Nearly 4 million people visit the park each year to experience its dramatic granite cliffs, waterfalls, lakes, and more.



What does the word “wilderness” mean to you?

Is it important to set aside lands from development, like national parks and nature reserves? Why or why not?

What are the impacts of setting aside land as “wilderness”? **Use the table below to record your thoughts.**

IMPACTS ON ENVIRONMENT	IMPACTS ON PEOPLE	IMPACTS ON WILDLIFE

5

TEHACHAPIS

Find a story that describes a human impact on this region. **Who were the stakeholders, and what was the outcome of the impact?**

HUMAN IMPACT

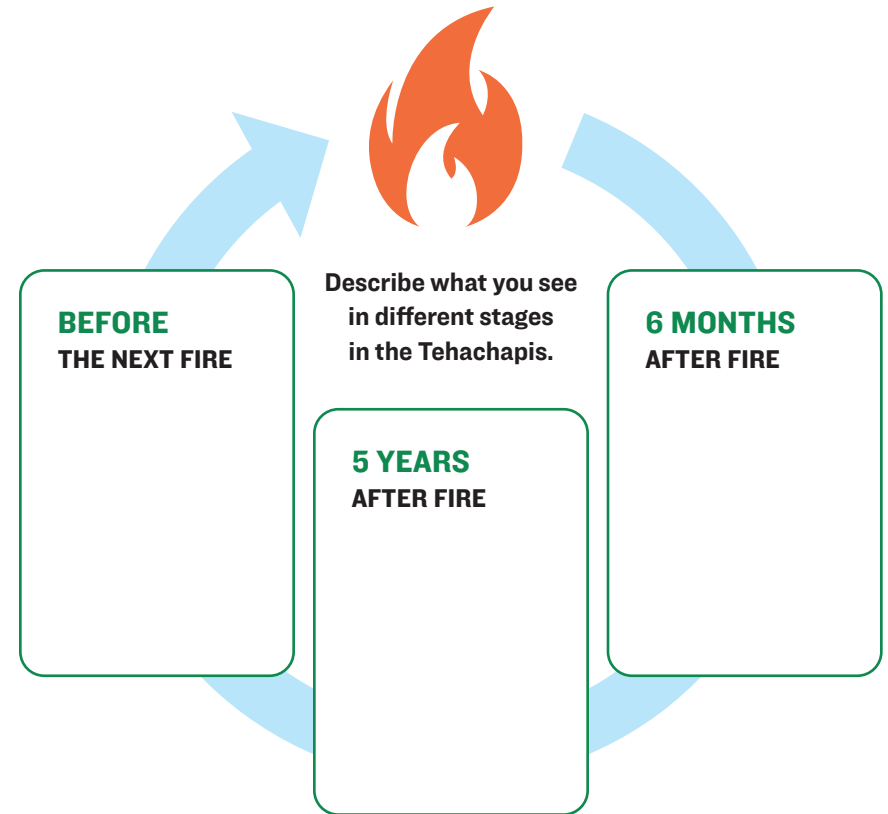
STAKEHOLDERS

OUTCOME



What are some instances of rapid or urban development where you live? Who might be affected by changes to the environment?

Wildfires are an example of a natural process that can quickly alter the conditions of a habitat. This process allows different organisms to grow, depending on the stage of the cycle.



What might happen to this habitat if fires occur more frequently?

Humans have made a life in the desert.

List three ways humans use water in Coachella. (HINT: Explore the photomural on the wall in this section.)

1.

2.

3.



Do you think these are the best uses for water? Why, or why not?



What impacts do these activities have on the surrounding environment and wildlife?

ACTIVITY	IMPACTS ON WILDLIFE & ENVIRONMENT
GOLFING	
MUSIC FESTIVALS	
CHOOSE YOUR OWN:	

Just outside the San Francisco Bay, Cordell Bank National Marine Sanctuary is teeming with life.

Marine sanctuaries are just like national parks, and many human activities are restricted there in an effort to conserve underwater habitats and the life they support.

The ocean is a vast and delicate environment. **List at least three threats to ocean ecosystems, as well as organisms that may be impacted by them.**

THREATS

AFFECTED ORGANISMS



Why is it difficult to keep the ocean free of pollution? Brainstorm with a friend some ways you can contribute to a cleaner watershed.



Take a look at *The Great Conveyor* by Richard and Judith Lang, hanging from the ceiling. It was created using plastic items found on Kehoe Beach in San Francisco. **Identify four items that look familiar to you.**

- 1.
- 2.
- 3.
- 4.



Think about the different types of plastic you use throughout the week. Which products would be really difficult to stop using?

List at least two actions you can take to reduce the amount of plastic you use.

1. _____
2. _____