

Narrative  
Nonfiction



# **Saving San Francisco Bay**

*by Yvonne Morrin*

**Mc  
Graw  
Hill**

**PAIRED  
READ**

**The Great Estuary Ecosystem**

## STRATEGIES & SKILLS

### Comprehension

**Strategy:** Summarize

**Skill:** Main Idea and Key Details

### Vocabulary Strategy

Sentence Clues

### Vocabulary

crumble, droughts, ecosystem,  
extinct, flourished, fragile,  
imbalance, rippled

### Content Standards

Science

Life Science

Word Count: 1,040\*\*

**Photography Credit:** (bkgd) Macduff Everton/Corbis, (tc) Animals & Wildlife/V6Digital Stock/CORBIS

\*\*The total word count is based on words in the running text and headings only. Numerals and words in captions, labels, diagrams, charts, and sidebars are not included.



## Essential Question

How are all living things connected?

# *Saving San Francisco Bay*

*by Yvonne Morrin*

## Chapter 1

Something Must Be Done! . . . . . 2

## Chapter 2

Speaking Out . . . . . 6

## Chapter 3

The Fight Continues . . . . . 10

**Respond to Reading** . . . . . 15

## **PAIRED READ**

**The Great Estuary Ecosystem** . . 16

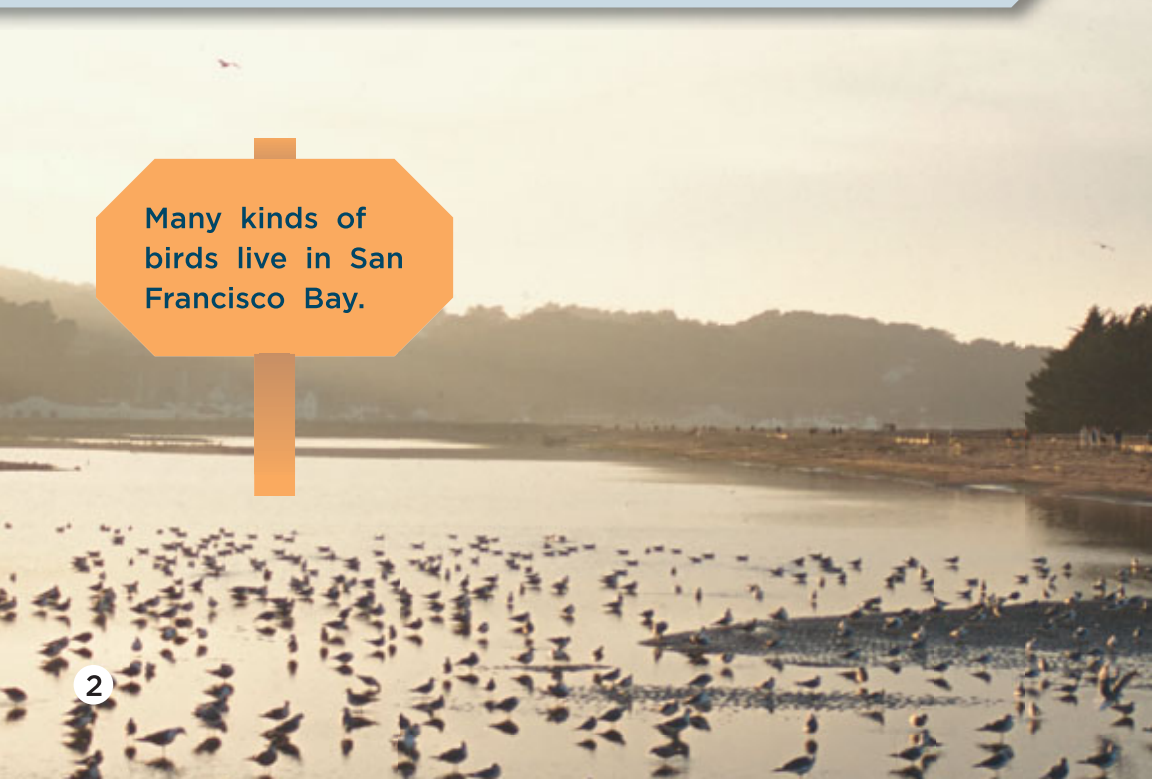
**Glossary/Index** . . . . . 19

**STEM** **Focus on Science** . . . . . 20

## ***Something Must Be Done!***

In December 1960, Kay Kerr looked out her window at Berkeley Bay. Wind rippled the water. An osprey flew past, and a heron hunted for food near the shore. Wildlife flourished in this part of San Francisco Bay.

Kerr was not happy. Her friend Esther Gulick asked what was wrong. Kerr pointed to the other side of the bay. Bulldozers were pushing soil, sand, and rocks into the water.



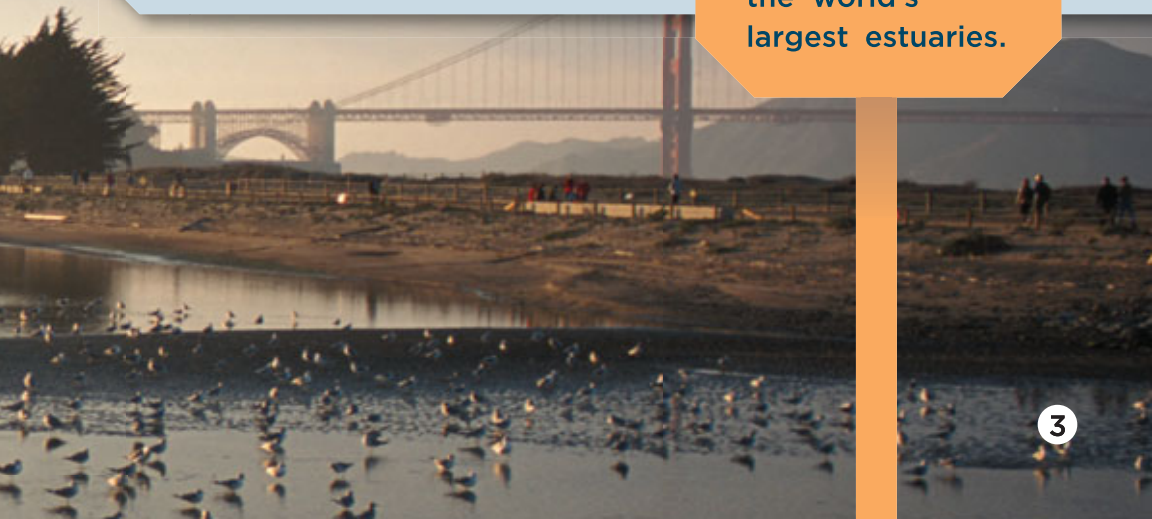
Many kinds of birds live in San Francisco Bay.

The bulldozers were filling in the bay to make more land. San Francisco Bay is an **estuary**. An estuary is a place where freshwater mixes with salt water from the ocean. Many **species** of fish, birds, and mammals live there.

Kay Kerr was worried about the plans to fill in more of the bay.



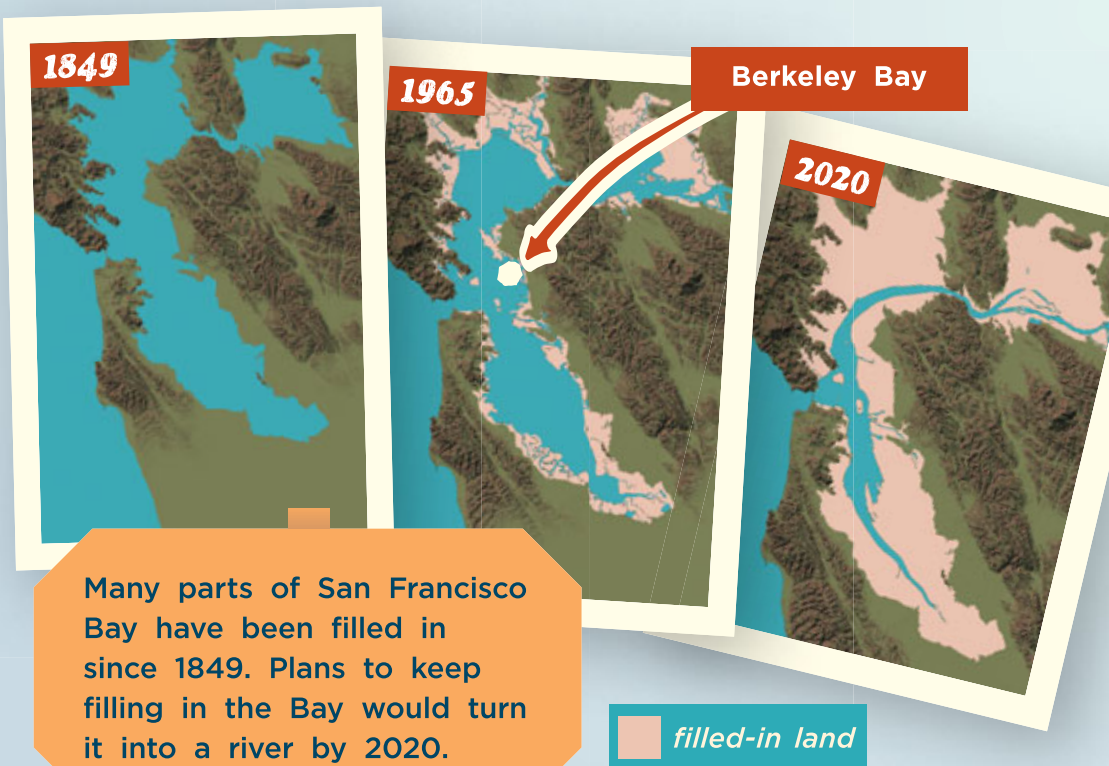
San Francisco Bay is one of the world's largest estuaries.





Many parts of San Francisco Bay had already been filled in. Kay Kerr and Esther Gulick were worried that there would be no shallow areas left. The Bay would become just a river.

The women wanted to protect the Bay. They knew that destroying the estuary would hurt the plants and animals. Some plants and animals might become extinct. They also knew pollution was a problem. Trash from garbage dumps was spilling into the Bay.



Kerr, Gulick, and their friend Sylvia McLaughlin asked for help. They talked to conservation groups. These groups were also worried about the Bay, but they were too busy to help.

Kerr and her friends decided to try to save the Bay themselves.

## *WILDLIFE IN SAN FRANCISCO BAY*

San Francisco Bay is home to many animals. Shellfish, snails, and crabs live in the mud. Many fish swim in the water. These animals provide food for birds. They are also food for animals living in the deeper waters of the Bay.

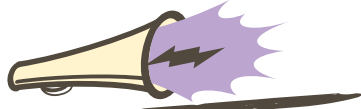
**Wading birds  
find their food  
in shallow water.**

### **STOP AND CHECK**

Why was Kay Kerr worried about San Francisco Bay being filled in?



## Speaking Out



Kay Kerr and her friends started the Save San Francisco Bay Association (Save the Bay) in 1961. They sent letters asking people to help protect the Bay. Most of the people did not want the Bay to be filled in.

The women had a lot of support for their cause. Yet they did not know how to stop the Bay from being filled in. The land around the Bay was part of nine counties. Each county could choose how to use its land.



Esther Gulick, Sylvia McLaughlin, and Kay Kerr started Save the Bay.



In 1962, a plan was made to fill in a large area of Berkeley Bay. Berkeley Bay is part of San Francisco Bay. The women's first goal was to stop this plan.

### *WHY FILL IN THE BAY?*

**Developers** and the city council wanted to fill in the Bay to make land for new buildings. The projects would create more jobs for workers and more money from taxes.

This refinery was built along the shores of San Francisco Bay in the 1960s.

The three friends wrote more letters asking people to help them protect the Bay. They gave out bumper stickers to let people know what was going on.

Save the Bay had 2,500 members by the end of 1962. The members sent many letters to the Berkeley City Council asking it to stop the plan!

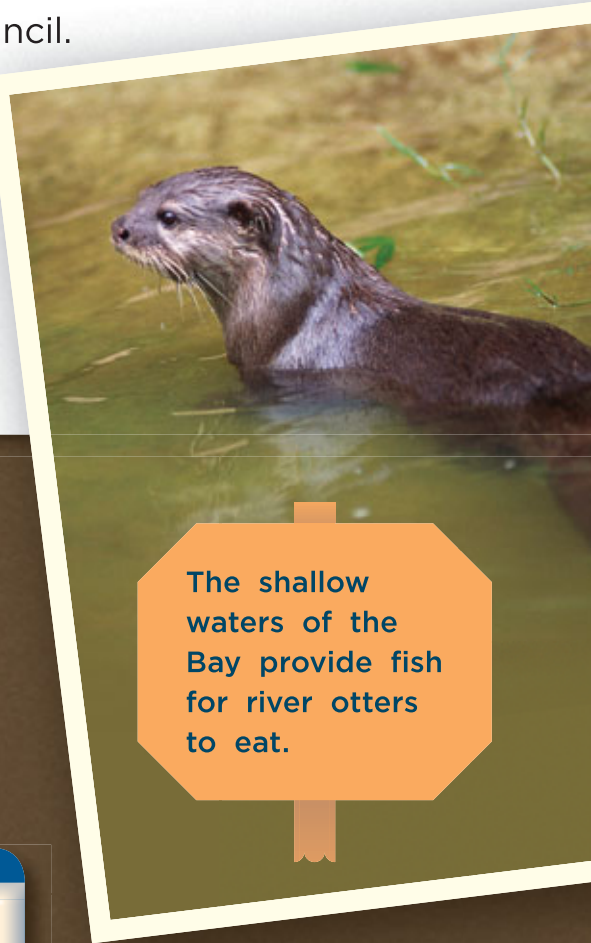
The women asked scientists what would happen to Berkeley Bay if it were filled in.



The scientists said that filling in the Bay would cause an imbalance in the **ecosystem**. An ecosystem is a community of plants and animals that live together. They need each other for food. Water plants and small animals would die if Berkeley Bay were filled in. Then larger animals would have nothing to eat.

The women gave these facts to the Berkeley City Council. The council decided to limit how much of Berkeley Bay could be filled in.

Photodisc/Getty Images



The shallow waters of the Bay provide fish for river otters to eat.

**STOP AND CHECK**

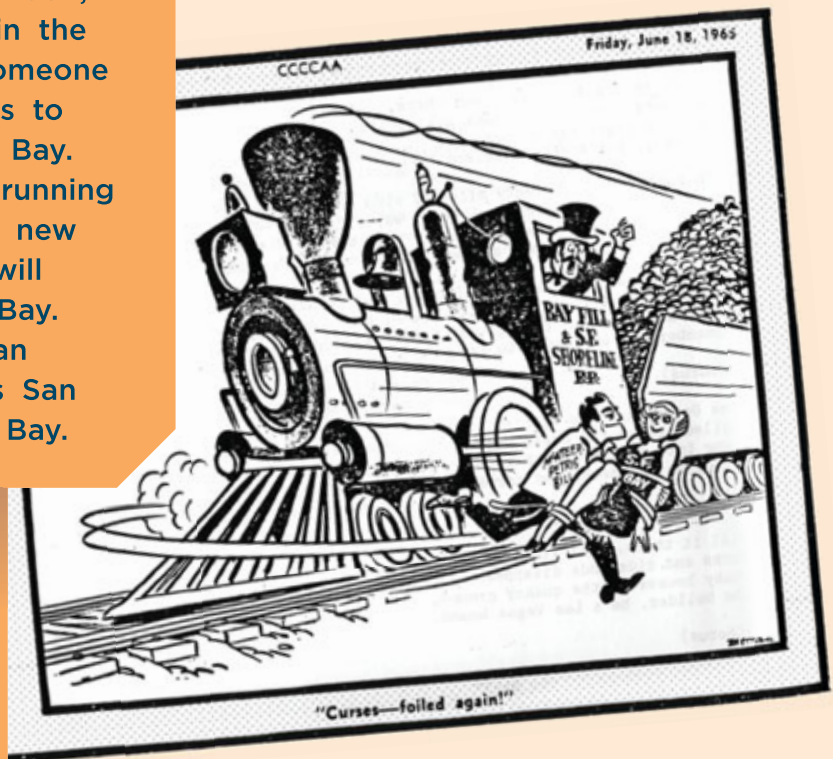
How did Kay Kerr and her friends try to keep the Bay from being filled in?

## The Fight Continues

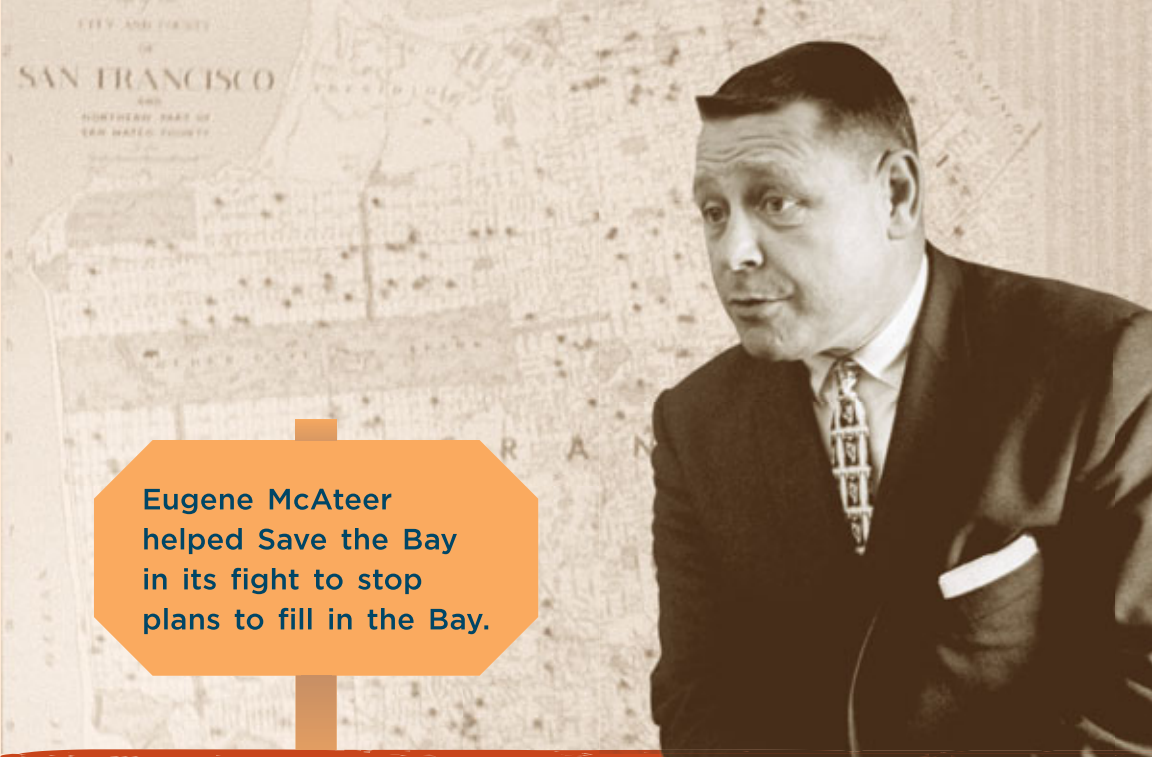
Berkeley Bay's fragile ecosystem was saved. The women had won their first fight. They knew the battle was not over. What about the rest of San Francisco Bay?

Kay Kerr met with a state senator named Eugene McAteer in 1964. He set up a group to look at all of the plans for filling in the Bay.

In this cartoon, the man in the train is someone who wants to fill in the Bay. The man running away is a new law that will save the Bay. The woman represents San Francisco Bay.







Eugene McAteer helped Save the Bay in its fight to stop plans to fill in the Bay.

The senator's group talked to developers who wanted to fill in the Bay. The group also met with scientists. The scientists said **preserving** the Bay was important to protect the environment.

Then Don Sherwood, a radio announcer, joined in. He told people to write to the government about saving the Bay. The government listened to the people and passed a new law. All plans to fill in San Francisco Bay had to be approved by the state first.





A new project was approved before the law passed in 1965. Developers wanted to crumble the top of a mountain into soil. The soil would be put into the bay. This would make more land to build houses. The new area would be the size of Manhattan in New York City.



Kay Kerr (top), Sylvia McLaughlin (left), and Esther Gulick fought to protect San Francisco Bay.

## ENEMIES OF PROGRESS?

In the 1960s, many people did not know that human activity can damage the environment in the same way as natural events like droughts and earthquakes. Developers opposed the women who set up Save the Bay. They called them names. This did not keep the women from protesting.

Save the Bay sued the developers to try to stop the project. It was the first time a battle like this was taken to court. The court case lasted for nine years. An agreement was finally reached to stop the project. It was a win for Save the Bay.

### STOP AND CHECK

Why did Save the Bay sue the developers?

(bkgd) Macduff/Everton/CORBIS, (l) Save The Bay

Kay Kerr and Save the Bay members were some of the first people to try to save the environment. They showed that people can work together to make change.

Save the Bay is still working today. It is trying to stop plastic bags from polluting the Bay. The members still want to protect the Bay. After all, people are part of the ecosystem, too!

**Save the Bay is still working to clean up the Bay.**



# Respond to Reading

## Summarize

Summarize how living things are connected in *Saving San Francisco Bay*. Use your graphic organizer to help you.

Main Idea
Detail
Detail
Detail

## Text Evidence

1. How do you know that *Saving San Francisco Bay* is narrative nonfiction? Identify the features that tell you this. **GENRE**
2. What is Chapter 2 mainly about? Use details from the text to support your answer.  
**MAIN IDEA AND KEY DETAILS**
3. What is the meaning of the word *support* on page 6? Look for clues in the sentence to help you figure it out. **SENTENCE CLUES**
4. Reread page 9. Write about how filling in the Bay would damage the estuary's ecosystem. Be sure to use details from the text in your answer. **WRITE ABOUT READING**



## Compare Texts

Read about food webs and their importance in importance in an ecosystem.

# The Great Estuary Ecosystem

San Francisco Bay's estuary is home to many plants and animals. Many clams, mussels, and other sea animals live in the mud. Fish, birds, and mammals live in the water. Other birds and mammals live on the shore. Endangered animals live there too, such as a bird called the California Clapper rail.

All these living things depend on each other. They are part of a **food web**.

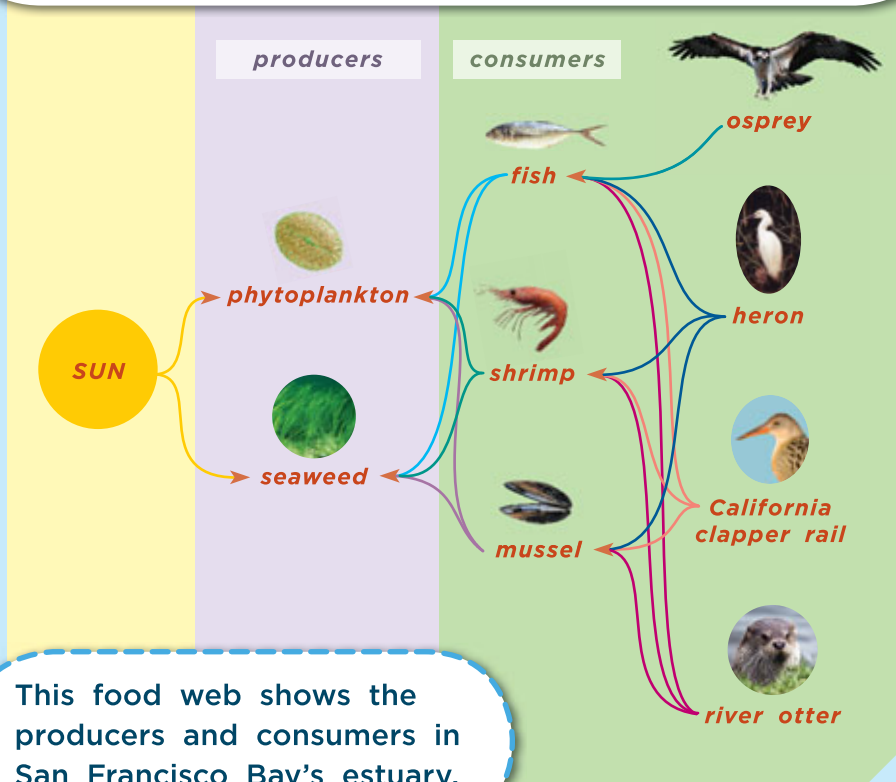


A California clapper rail nests near San Francisco Bay's estuary.



Tiny water plants called phytoplankton grow in shallow waters of the estuary. Seaweed grows there too. The plants use energy from the sun to make food. They are called producers.

Mussels, shrimp, and small fish eat these plants. The mussels are eaten by river otters. The river otters also eat the shrimp and fish. The river otters also eat the shrimp and fish. When animals eat plants, the energy from the plants is passed on to the animals. When animals eat other animals, the energy is passed on again. Animals that eat plants or other animals are called consumers.



This food web shows the producers and consumers in San Francisco Bay's estuary.

Some animals spend all their lives in the estuary. Other animals start life in the estuary where there is lots of food. They move into deeper water when they are older.

People are part of food webs, too. People catch fish and shellfish to eat in San Francisco Bay. If the Bay's ecosystem is harmed, there will be less food for people, as well as animals.

Children enjoy fishing near San Francisco Bay.



Jason/CORBIS



## Make Connections

Describe how the plants and animals of the San Francisco Bay estuary are connected to each other.

### ESSENTIAL QUESTION

How do *Saving San Francisco Bay* and *The Great Estuary Ecosystem* show that it is important for people to understand the connections between living things? **TEXT TO TEXT**

# Glossary

**developers** (*di-VEL-uh-purz*) people or companies that build and sell houses or other buildings on a piece of land (**page 7**)

**ecosystem** (*EE-koh-sis-tuhm*) all of the living and nonliving things in an environment and how they are related (**page 9**)

**estuary** (*ES-chuh-wer-ee*) an area where a river flows into an ocean (**page 3**)

**food web** (*fewd web*) when the plants and animals in an ecosystem are linked to each other as sources of food (**page 16**)

**preserving** (*pri-ZURV-ing*) keeping something safe from harm (**page 11**)

**species** (*SPEE-sheez*) a group of animals or plants that are similar (**page 3**)

# Index

Berkeley Bay, 2–4, 7–10

Berkeley City Council, 8, 9

food web, 16–18

Gulick, Esther, 2–10, 13

Kerr, Kay, 2–10, 13, 14

McLaughlin, Sylvia,

5–10, 13

pollution, 4, 14

Save the Bay, 6, 8, 13, 14

# Focus on Science

**Purpose** To understand and describe how living things are connected to each other in a food web

## Procedure

**Step 1** Look at the food web diagram on page 17.

.....

**Step 2** Think of another ecosystem with different plants and animals that depend on each other to live.

.....

**Step 3** Draw a food web diagram that shows how the plants and animals in the ecosystem are connected.

.....

**Step 4** What might happen if one part of the web were changed or damaged?

.....

**Step 5** Discuss your diagram with a partner.

**Conclusion** What have you learned about how living things depend on each other? When one part of the web is changed or damaged, it affects the other parts of the web. What kinds of things can cause changes in a food web?

## Literature Circles

### Nonfiction

# Thinkmark

### **Text Structure**

In what order is the information given in *Saving San Francisco Bay*?

### **Author's Purpose**

Why do you think the author wrote *Saving San Francisco Bay*?

### **Key Vocabulary**

What key words in this text relate to the main topic?

### **Conclusions**

What conclusions can you make after reading this story?

What are the most important things you learned?

### **Make Connections**

What other stories do you know about people working together to protect the environment?