

# INTERACTIVE MAP LESSON:

## PRESERVING THE WETLANDS

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### RECOMMENDED TIME

90 minutes

### OBJECTIVES

After completing this lesson, students should be able to:

- Identify the different types of wetlands.
- Explain the importance of wetlands.
- Describe the Florida Everglades.
- Discuss efforts to preserve the Everglades.
- Identify and describe the coastal wetlands of Texas.
- List methods used to protect the wetlands from oil spills.

### LEARNING CONNECTIONS

- **Learning Styles:** linguistic, logical-mathematical, visual-spatial
- **Skills Mastery:** drawing conclusions, understanding cause and effect

### RESOURCE

- **Interactive Map:** [Preserving the Wetlands](#)

### CONTEXT

In the past, wetlands had been considered to be useless land that was unsuitable for human habitation, farming, or development. Because of this, many natural wetlands have been filled in or used as dumping grounds for many years. Environmental experts are now learning that the various kinds of wetlands are vital to a healthy ecology, and efforts are being made to preserve, clean up, or restore the marshes, bogs, estuaries, and other wetlands of the United States.

**Developing Economic and Geographic Literacy.** In this lesson, students will learn about the different types of wetlands and their importance to global ecology. Students will explore in particular the Florida Everglades and efforts made to preserve this area as well as the coastal wetlands of Texas and methods used to protect the wetlands from oil spills.

### OPEN

1. Present the information from the Context section to students in the form of a brief lecture. Tell students that they will be learning more about various types of wetlands and their role in global ecology. They will explore in particular the wetlands of the Florida Everglades and the Texas coastal region. Tell them to pay particular attention to the efforts that have been made to clean up, restore, and preserve these ecologically sensitive areas.

## TEACH

2. Have students explore the Preserving the Wetlands Interactive Map on a computer. Students may work individually or in small groups, depending on the number of computers available.
3. Have students complete the online review at the end of the interactive map. Check their scores to confirm their overall understanding of the material presented in the interactive map activity. If time permits, allow students who received low scores on the review to explore the interactive map further. Encourage them to take notes on the electronic notepad that is available to them throughout the activity.

If many students in the class experience difficulty with the interactive map activity and review, you may wish to have them complete one or more of the optional activities below to ensure mastery of the learning objectives.

## CLOSE

4. **Drawing Conclusions and Understanding Cause and Effect.** Ask the class to consider what might happen if all the natural wetlands in the United States were to disappear. (Students may say that many species of birds and fish would die; shrimp and other types of seafood would increase in price or become unattainable; many water bodies would become more polluted because there would be no nearby wetlands to clean water naturally; there would be more land for building and farming. Accept any reasonable answers.) Then ask students whose role they think it is to manage the wetlands of the United States—the national or state governments, private citizens, industry, environmental organizations, no one, or everyone? Encourage students to explain their answers.

## OPTIONS

- **Acquiring Information.** Have students select one of the types of wetlands mentioned in the Preserving the Wetlands Interactive Map to research in more depth. They may choose to investigate bogs, fens, floodplains, swamps, prairie potholes, saltwater marshes, mangrove swamps, estuaries, mud flats, or freshwater coastal marshes. Have students use their textbooks, the Internet, and the library to research their topics. Tell students to record on index cards general information from at least five different resources about the type of wetland they selected. Remind them to make a separate card for each resource. If time permits, have volunteers share some of the information they acquired with the class. To assess students' work or to guide students, use the [Acquiring Information Rubric](#).
- **Solving Problems.** Remind students of the solutions to wetlands problems that were described in the Preserving the Wetlands Interactive Map. Have students work in groups to brainstorm more solutions to the general problems of shrinking wetlands, oil spills, other types of water pollution, and endangered wetlands wildlife. When all groups have come up with at least one viable idea to combat one or more of these problems, have a representative of each group write their solution on the chalkboard or an overhead projector. Have the class vote on which solution or solutions are the best or most realistic. Have each student write a letter to a state or national representative asking that this solution be taken into consideration. To assess students' work or to guide students, use the [Solving Problems](#) and the [Writing Assignments Rubrics](#).