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Title: *Postcards from the Edge: Endangered Species*

Overview

The U.S. Fish and Wildlife Service is a bureau within the Department of the Interior whose mission is to work with others to conserve, protect, and enhance fish, wildlife and plants and their habitats. The bureau manages the 93-million-acre National Wildlife Refuge System with more than 530 individual refuges, wetlands, and special management areas. Among its key functions is the protection of endangered species.

Connections to the Curriculum

Geography, Science, Language Arts

Connections to the National Geography Standards

Standard 8: the characteristics and spatial distribution of ecosystems on Earth's surface

Standard 14: how human actions modify the physical environment

Standard 18: how to apply geography to interpret the present and plan for the future

Time

one classroom period

Materials Required

- Internet connection
- 5 x 7 index cards

Objectives

Students will

- identify endangered species in their state
- create postcards of facts and pictures about the species
- analyze reasons to protect endangered species

Geographic Skills

Asking geographic questions

Acquiring geographic information

Organizing geographic information

Answering geographic questions

Suggested Procedures:

Opening: Since the arrival of Europeans in North America, more than 500 species have become extinct. The population of many more declined due to loss of habitat, degradation of the environment, pollution, pesticide use, and other factors. Within the United States (12/26/2002), 517 species of animals and 745 species of plants are listed as threatened or endangered. The U.S. took a giant step toward saving plants and animals with the passage of the Endangered Species Act in 1973. The act is defined at the following web site <http://endangered.fws.gov/esa.html#Lnk03> .

Development: Assign each student the task of creating a postcard of an endangered species in your state. Species listed as threatened or endangered by state are available at <http://ecos.fws.gov/servlet/TESSWebpageUsaLists?state=all>. By clicking on the scientific name of the species, students can view a species profile. Information includes Status Details, Life history, Recovery Plans, Federal Register documents (e.g., final rules listing the species, critical habitat designation, and designation of experimental populations), Habitat Conservation Plans, Petitions received, USFWS Refuges on which the species is reported, Current News Releases, and NatureServe Explorer Species Reports. A photo of the endangered species should appear in the Life history section (NOTE: photos are not available for all species). Have the students include on the postcard facts about the endangered species and a drawn or cutout picture of the endangered species.

Closing: Postcards can be displayed on a bulletin board, or used to create a game. Discuss reasons for saving endangered species. Some major reasons include: a) protecting endangered species helps protect a healthy environment, b) protecting endangered species helps protect sustainable economies and a good quality of life, and c) protecting our Nation's heritage is a fundamental American value. Discuss ways students can help. These are in <http://endangered.fws.gov/kids/teachkit.pdf>. Also see <http://endangered.fws.gov/kids/whatyoucando.pdf> or read the *Green Kids Guide to Threatened Species: Nine Ways You Can Help* at <http://www.ea.gov.au/biodiversity/threatened/information/kids.html>, and *20 Tips to Help Save Our Threatened Species* at <http://www.ea.gov.au/biodiversity/threatened/information/20-tips.html>. Have students analyze reasons why they should help with species and habitats. Brainstorm ways to help in the community (volunteer to help at a refuge, don't litter, follow fishing and hunting laws), at home (don't put hazardous wastes in the trash or pour down the drain, recycle), in a car (reduce car trips, carpool, drive energy efficient cars, don't throw trash out the window, recycle oil), or in your yard (use compost, use natural insect controls, plant native trees and bushes). At school start a school paper on endangered species, plant native species in your schoolyard.

Suggested Student Assessment:

The completed project can be assessed through a rubric.

_____ The postcard displays important facts about an endangered species (4 pts)

_____ The postcard displays a picture of the endangered species (2 pts)

_____ The postcard is neat (2 pts)

_____ The postcard is turned in on time (2 pts)

_____ Total (10 pts)

Extending the Lesson:

1. Get the students and community involved in helping to conserve rare, threatened, and endangered species and their habitats. Inform the community of endangered species native to your area through newspaper articles, brochures, buttons, signs,

- speeches, or videos. Ask student council to make contribution to local organization recovering species.
2. Adopt a species or adopt a habitat in your area. Join the National Wildlife Federation's Backyard Wildlife Habitat program.
 3. Sponsor an environmental seminar for the school and the community.
 4. Mail the postcard to member of congress with a message.

Related Links:

1. World Wide Fund For Nature is dedicated to saving and protecting endangered species. Learn about efforts to preserve global wildlife and animal habitats at www.wwf.org
2. Resource center providing education resources, extinct and endangered species listings, articles and policy information at eelink.net/EndSpp/specieshighlights-mainpage.html
3. National Wildlife Federation dedicated to conserving wildlife and the environment offers educational materials and action alerts at www.nwf.org
4. Endangered Species Coalition is an alliance of organizations and activists working to save the endangered wildlife of America at www.stopextinction.org

Resources:

U.S. Fish and Wildlife Service