

ECO DILEMMAS

Students study and debate Sonoran Desert conservation issues.

OBJECTIVES

Students should:

- Realize that environmental issues are complicated and affect many different people.
- Become aware of some important Sonoran Desert conservation issues.

MATERIALS

- *Eco Dilemma Cards - Handout*

VOCABULARY

- **Endangered** - an animal or plant that is so rare it may become extinct
- **population** - a number of a group of animals or plants of the same kind
- **species** - a group of plants or animals that are very nearly alike and are able to breed with each other. (For example, a fox and a coyote are similar, but they cannot breed with each other. A fox is one species and a coyote is another.)
- **Threatened** - a species of plants or animals whose population is dropping quite a bit.

GETTING READY

Photocopy *Eco Dilemma Cards - Handout* for each student.

DOING THE ACTIVITY

SETTING THE STAGE

Encourage the students to discuss conservation issues by asking pointed questions about land and resource use, i.e.:

- How many of them have visited a national, state, or county park?
- Have they ever seen any of the Endangered or Threatened species that they learned about at the Desert Museum in the wild (or have they heard about them on the news?) Why are some of these Endangered or Threatened?
- What natural resources did they use so far today?

Their responses should reflect a variety of ways that resources play a role in their own lives. Ask the students if they think natural resources are important in their lives, and if they think they have much of an impact on resources. Explain that they are going to read a series of scenarios related to wildlife and land resources to further pursue these questions.

ACTIVITY - ECO DILEMMAS

1. You can do this activity in many ways. You can read the dilemmas to the class for whole group discussion, or assign teams to study each issue and then hold a class debate. Students can also respond to the dilemmas individually in writing.
2. Tell students that they need to give reasons for their choices. Where applicable, have students support their opinions with factual information.

DISCUSSION

Discuss the students' choices. Remind them that despite disagreements, everybody's

choice is valid. Some of the choices may seem more environmentally or ethically correct, and some may have legal ramifications if the resource or animal is protected by laws. The following information outlines the legal positions surrounding the different scenarios.

1. **Cave Dilemma:** Since the cave is on private property, legally any access requires the permission of the owner.
2. **Mexican Gray Wolf Dilemma:** Because it is an Endangered species, Mexican Gray Wolves are protected by law. Those caught killing wolves can be fined or imprisoned. Contact the U.S. Fish and Wildlife Service (P.O. Box 1306, Albuquerque, NM, 87103; (505) 248-6656) for more information.
3. **Cactus Ferruginous Pygmy Owl Dilemma:** The Cactus Ferruginous Pygmy Owl is federally listed as an Endangered species and is therefore protected by law on public and private property. For more information, contact the U.S. Fish and Wildlife Service (address above) or the Arizona Game and Fish Department (Tucson - 520-628-5376.)
4. **Injured Animal Dilemma:** It is illegal to keep a wild animal in captivity, but licensed wildlife rehabilitators have permission to temporarily keep and raise wild animals for later release or donation to a zoo. A wild animal is usually best left in its environment.

EXTENSION

Ask students to watch the local news on television and/or read the local paper for a few weeks. Have them record information on conservation issues and save relevant articles from the newspaper. Present each issue to the class for discussion and/or debate. Have students conduct more research on local issues and write editorials.

Cave Dilemma

You and a friend like to go spelunking. One day, you find an undiscovered cave in southeastern Arizona. You believe it is one of the largest, most pristine caves in the United States. After exploring part of it, you find out that it is located on private property. You know that if people find out about this cave it will never be the same. (Letting in outside air is damaging to caves and touching cave decorations can stop them from growing.) Do you:

- ___ leave the cave, tell no one, and never go back
 - ___ keep the cave a secret and return to enjoy it later
 - ___ call a local natural history museum for advice
 - ___ call the local newspapers and make the discovery public
 - ___ other _____
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Mexican Gray Wolf Dilemma

You are a cattle rancher in southern Arizona. The Arizona Game and Fish Agency is planning to reintroduce the Mexican gray wolf into federal land next to your property. Do you:

- ___ advise your ranch hands to shoot any wolf sighted
 - ___ sell your cattle and move to another part of the state without wolves
 - ___ contact the Arizona Game and Fish Agency and ask for advice
 - ___ other _____
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Cactus Ferruginous Pygmy Owl Dilemma

You are a home builder in Tucson. As more people move into the Tucson area, there is a great demand for new homes, businesses and schools. Business is great, but you've hit a problem. You've been asked to develop a section of desert to build a school. Wildlife biologists claim that the site is prime pygmy-owl habitat. They want to prevent you from building. Do you:

- ___ go against the client's wishes and find a new site
- ___ ask for another study to count the owls to determine if the owl is really endangered
- ___ try to build the school with a minimal effect on the owl habitat even though this may prove impossible
- ___ other _____

Pollinator Dilemma

You are a commercial farmer that routinely uses insecticides to control insects. The land next to you has been changed into an organic farm that does not use insecticides. The organic farmer contacts you and tells you that her production is down and she thinks it is because pollinators (animals that carry pollen from plant to plant, helping the plant to reproduce) are being killed by the insecticides. You know that pollination is necessary for the crops to set fruit, but before you started using insecticides, your fruit had worms. Do you:

- ___ tell the farmer to mind her own business
- ___ reduce the amount of insecticides you use
- ___ investigate whether your own production is down
- ___ other _____

Injured Animal Dilemma

You have found a young screech owl, which might be injured. Should you:

- ___ leave it where it is
- ___ keep it as a pet, even though you know it is illegal to keep a wild animal captive
- ___ call the Arizona Game and Fish Agency or Desert Museum and ask their advice
- ___ other _____

Zoo Dilemma

You are on a field trip with your class to the zoo. Although you know that feeding of the animals by zoo visitors is prohibited, and may make the animals sick, some of your friends are feeding apple slices to the bears. Do you:

- ___ tell them that feeding apple slices to the bear may harm it and ask them to stop
- ___ report their behavior to the nearest keeper
- ___ not do anything
- ___ other _____