

Summary

This lesson focuses on the role of protected areas in helping maintain biodiversity. Students will explore the social, economic and environmental impacts of protected areas by researching and preparing a newsletter about a locally protected area.

Activity Info



Level: Grades 6 and 7

Subject: Life Sciences, Diversity of Life, Interactions within Ecosystems, Geography, Natural Resources, Computer Science

Estimated Duration: 20 to 40 minutes discussion and planning, 90 to 100 minutes newsletter development and writing

Materials: paper, pencils, pens, markers

Learning Outcomes

Students will:

- Identify and explain economic, environmental and social factors that should be considered in the management and preservation of habitats.
- Describe the potential impact of use by humans of regional natural resources.
- Demonstrate how human activities affect people and the environment.

Teacher Background

Protected areas are landscapes in which human activities are carefully managed and certain activities that harm ecological processes are heavily controlled or completely prohibited.

The conservation of biodiversity is a key management objective in these protected areas. By protecting a part of the landscape from potentially harmful human activities, we are

protecting the integrity of ecosystems and helping maintain biodiversity.

The International Union for the Conservation of Nature (IUCN) defines a protected area as: *an area of land and/or sea especially dedicated to the protection and maintenance of biological diversity, and of natural and associated cultural resources, and managed through legal or other effective means.*

There are numerous types of protected areas across Canada such as parks, wildlife reserves or conservation areas. Environment Canada's State of the Environment Report includes protected area definitions such as:

- **Nature Reserves** (protected for scientific reasons). An area of land and/or sea possessing some outstanding or representative ecosystems, geological or physiological features and/or species. It is protected for scientific research and/or environmental monitoring.
- **Wilderness Area** (for wilderness protection). A large area of unmodified or slightly modified land, and/or sea, retaining its natural character and influence, without permanent or significant habitation, which is protected and managed so as to preserve its natural condition.
- **National Park** (ecosystem protection and recreation). A natural area of land and/or sea, designated to protect the ecological integrity of one or more ecosystems for present and future generations; to provide a foundation for spiritual, scientific, educational, recreational and visitor opportunities, all of which must be environmentally and culturally compatible.
- **Habitat/Species Management Area** (for conservation through management intervention). An area of land and/or sea subject to active resource management to ensure the maintenance of habitats and/or to meet the requirements of specific species.

- **Protected Landscape/Seascape** (for landscape/seascape conservation and recreation). An area of land, with coast and sea, where the interaction of people and nature over time has produced an area with significant aesthetic, ecological and/or cultural value, and often with high biological diversity.
- **Managed Resource Protected Area** (for the sustainable use of natural ecosystems). An area containing natural systems, managed to ensure long term protection and maintenance of biological diversity, while providing a sustainable flow of natural products and services to meet community needs.

Non-government organizations and individuals also have an important role to play in protecting ecosystems. Organizations such as Ducks Unlimited, the World Wildlife Fund and numerous naturalist clubs and other environmental groups have various fund raising and educational activities with the goal of protecting significant landscapes and protected biodiversity. For example, Oak Hammock is a large wetland in Manitoba protected and maintained by Ducks Unlimited for waterfowl conservation.

Oak Hammock
www.ducks.ca/ohmic/

Motorized vehicles are allowed in some national parks, but are banned in others. Some protected areas may permit less-intensive activities such as bird watching or hiking, but ban mountain biking.

This activity introduces you to a variety of protected areas in Canada and their different levels of protection and management objectives. There are numerous activities that may be permitted in protected areas.

Procedure

Step 1

Ask your students what they know about protected areas (record their responses on the board). You might consider some of the following questions:

- What do protected areas protect (biodiversity, habitat, mammals, reptiles, trees)?
- Do protected areas have social, economic and environmental impacts or value?
- What are some different types of protected areas (conservation area, provincial park)?
- What are some activities that you do in a protected area?

Step 2

As a class, choose either a national park or a locally protected area (something that your students will be familiar with). Discuss the plants, animals, landscapes, water, etc. You might consider some of the following questions:

- Why is the area protected?
- Is the area used for tourism and/or recreation?
- Are there any endangered species?
- What makes it special?
- How many people are employed there?
- What activities take place, or are permitted?
- Is the local economy dependant upon it?

Step 3

Explain to the class that they will be creating a newsletter about the local protected area. Tell them that their primary audience will be for their school and their parents.

Step 4

Challenge your students to come up with some possible topics for articles and other content for the newsletter. Create a list on the board. Here are some possibilities:

- Why are protected areas important?
- What do we protect?
- Who uses protected area, and what types of activities are they involved in?
- Hard (mountain biking) vs. soft (bird watching) uses.
- How can a protected area be damaged?
- What can we as individuals do to care for protected areas?
- An editorial about restricting access to a protected area?
- Activity (word search, word jumble, maze).
- Drawings or cartoons.
- Graphics (you might suggest digital photos of the protected area). Some might be available on the Internet.
- List of informative Web sites.

Step 5

Once you have a list, begin assigning tasks. You may have two students per task. In addition, you will need two students to work on layout and design. You should take on the role of newsletter editor in chief, but you may have associate editors.

Step 6

Explain that the newsletter will be approximately two to four pages long. Each article should be approximately five to seven paragraphs long. The articles and other content must be reviewed with the editor prior to layout.



Extensions

- Prepare a public service announcement (PSA) using one of the articles/messages from the newsletter
- Model Forests in Canada do research about habitat, wildlife management and biodiversity. Similar to protected areas, they permitted certain activities. Ask your students to visit the Model Forest Web site and find an example of human activity on a Model Forest (hint: the Foothills Model Forest in Alberta has looked at providing camping opportunities).

Model Forest Network
www.modelforest.net
- Submit your newsletter to the protected area.

