

## GED 2002 Teachers' Handbook of Lesson Plans

Area/Skill - Science	Cognitive Skill Level - Analysis/Evaluation	Correlation to Framework - 03.02/03.04/03.05	Lesson Number - 26
<p><b>Activity Title - Biodiversity - Does It Really Matter?</b></p> <p><b>Goal/Objective</b></p> <p>To analyze and evaluate the issues that surround biodiversity, ecosystems, and extinction.</p> <p><b>Lesson Outline</b></p> <p><b>Introduction</b></p> <p>Begin the lesson by asking: Should it matter to humans that other life forms are disappearing? People take many different approaches when making the case for preserving biodiversity. Human populations depend on plants and animals for much of their food, medicines, clothing, and shelter. Intact <b>ecosystems</b> perform many vital functions, like purifying the air, filtering harmful substances out of water, turning decayed matter into nutrients, preventing erosion and flooding, and moderating climate. It is not known how many species can be eliminated from an <b>ecosystem</b> without its functioning being impaired.</p> <p><b>Activity</b></p> <p>Divide the class into groups of about three students each. Ask the groups to discuss and list the reasons why they think biodiversity is important or why endangered animals and habitats should be protected. Have the groups list all of their ideas. Students may wish to access the Internet to obtain background information to support their reasons.</p> <p><b>Debriefing/Evaluation Activity</b></p> <p>Have the students discuss their ideas with the class. Write their ideas on the board or chart paper. Provide each group with the <b>Handout—Five Arguments for Saving the Ecosystem</b>. Have the students see whether each of their ideas supports one of the five major arguments.</p>		<p><b>Materials/Texts/Realia/Handouts</b></p> <ul style="list-style-type: none"> <li>• <b>Handout - Five Arguments for Saving the Ecosystem</b></li> <li>• Chart paper/board and markers</li> <li>• Paper and pencils</li> <li>• Computers with Internet access</li> <li>• Extinction—What Can We Do? <a href="http://www.nationalgeographic.com/ngm/9902/forum/extinctionessay.html">http://www.nationalgeographic.com/ngm/9902/forum/extinctionessay.html</a></li> <li>• Why save Endangered Species— <a href="http://www.state.ak.us/local/akpages/FISH.GAME/wildlife/geninfo/game/es_why.htm">http://www.state.ak.us/local/akpages/FISH.GAME/wildlife/geninfo/game/es_why.htm</a></li> </ul>	
		<p><b>Extension Activity</b></p> <p>Have students write a two-paragraph essay about preserving diversity. The first paragraph should explain the most compelling arguments and why. The second paragraph should explain an argument that they located through their research on the Internet.</p>	
<p><b>Real-Life Connection</b></p> <p>Have students write letters to the World Wildlife Fund or another conservation organization requesting material on the organization's efforts in preserving the ecosystem. As a class, discuss how biodiversity and the conservation of the ecosystem or the destruction of the ecosystem can impact daily life as we now know it.</p>		<p><b>ESE/ESOL Accommodations</b></p> <p>Have students work in small groups where research can be read orally.</p> <p>Develop a graphic organizer that identifies basic pros and cons to get students started in their research.</p> <p>Provide students with definitions of the terms used in the lesson.</p>	

## GED 2002 Teachers' Handbook of Lesson Plans - Script

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### Activity Title - Biodiversity - Does It Really Matter?

#### Introduction

*Say:* Think about all of the different plants and animals that were once abundant on our planet that are now extinct. *Ask:* Should it matter to humans that other life forms are disappearing? How does the disappearance or extinction of a plant or animal affect you?

*Say:* People take many different approaches when making the case for preserving biodiversity - the right of all plants, animals, etc. to exist. Human populations depend on plants and animals for much of their food, medicines, clothing, and shelter. Intact ecosystems also perform many vital functions, like purifying the air, filtering harmful substances out of water, turning decayed matter into nutrients, preventing erosion and flooding, and moderating climate. It is not known how many species can be eliminated from an ecosystem without its functioning being impaired.

#### Main Activity

*Ask:* What do you think about conserving those plants, birds, fish, animals, environments that are being threatened?

Divide the class into groups of about three students each. Ask the groups to discuss and list the reasons why they think biodiversity is important or why endangered animals and habitats should be protected. Have the groups list all of their ideas. Students may wish to access the Internet to obtain background information to support their reasons. Sample sites are provided in the lesson.

#### Closure/Conclusion

*Ask:* What reasons did you provide for protecting endangered animals and habitats? Write the students' answers on the board.

Provide the students with the **Handout—Five Arguments for Saving the Ecosystem**. Have the students see whether they can categorize each of their reasons under one of these major categories of reasons for saving the ecosystem.

*Say:* To summarize what you have learned, write one to three sentences for each of the five types of arguments. Include in your sentences specific examples that support each of the pro-biodiversity arguments.

Have students share their sentences with the class.

#### Follow-Up Lessons/Activities

Have students write letters to the World Wildlife Fund or another conservation organization requesting material on the organization's efforts in preserving the ecosystem. As a class, discuss how biodiversity and the conservation of the ecosystem or the destruction of the ecosystem can impact daily life as we now know it.

Contact a local conservation organization and have a member speak to class about conservation efforts in the local area.

**GED 2002 Teachers' Handbook of Lesson Plans  
Science Lesson 26 Handout**

**Five Arguments for Saving the Ecosystem**

There are many reasons for preserving biodiversity and maintaining healthy ecosystems. Five major arguments are:

1. Economic (Biodiversity can help people make money or keep people from losing money.)
2. Recreation (People love outdoor activities like fishing and backpacking, which would not be possible if ecosystems were destroyed.)
3. Human health (Biodiversity can help people find better cures for illnesses.)
4. Human rights (if biodiversity is protected, indigenous people can continue to live in their native lands.)
5. Spiritual/intrinsic value (Biodiversity should be preserved for its own sake. Animals and plants have a right live. People rely on wild places and creatures for spiritual fulfillment.)