



BIODIVERSITY LESSON PLAN

Proposed Time: 2-3 hours

Grade Level: 3rd - 5th grade

Student Performance Objectives:

1. Students will be able to define biodiversity and ecosystem.
2. Students will understand the importance of biodiversity to an ecosystem.
3. Students will explore the threats of several marine sanctuaries.
4. Students will consider the relationship between the location of each sanctuary and the long-term outlook for its health.

National Geography Standards Addressed:

Standard 6: "How culture and experience influence people's perceptions of places and regions"

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

Standard 14: "How human actions modify the physical environment"

Materials:

Blank index cards

Several atlas maps

Information and pictures of several marine sanctuaries

Any additional information needed

Pencils & Paper for essay

Internet access for further research.

Anticipatory Set:

The instructor will open the lesson by discussing what will be covered. Then following the discussion, several questions may be asked regarding biodiversity:

- ✓ What is biodiversity?
- ✓ Why is biodiversity important to us?
- ✓ How does the location of a sanctuary affect its long-term health?

This portion of the lesson will more or less include open ended questions to get the students to use their critical thinking skills.



Steps of the lesson:

1. As a class, the instructor should encourage students to come up with their own definitions of ecosystems and biodiversity. The instructor may want to write some on the board, or invite students up to do so.
2. Next, the students should brainstorm a list of organisms found in their local ecosystems. These may also be listed on the board. At this point, the instructor should explain what the importance of biodiversity is. Students should then be encouraged to express their opinions on why biodiversity is important and in what ways they feel preserving biodiversity enhances the life of the organisms.
3. In small groups (2-3 students), explore the information on the marine sanctuaries. Students should also locate these sanctuaries in their atlas. Each group should brainstorm a list of characteristics of the marine ecosystems. These brainstorms may be shared with the class.
4. Next, the groups should further investigate their sanctuaries. Each team should be able to:
 - Locate the sanctuary
 - List characteristics of the ecosystems
 - List types of wildlife present in the sanctuary
5. Each group will be given index cards, and they will write down all the information they gather about their sanctuary. These will later be collected and used for another activity. Once each group has completed their task, they may go through their index cards and share with the class the information they have gathered.
6. The instructor will collect the cards, and use all the information to create a large Venn diagram on the board to illustrate the similarities of each ecosystem.



Evaluation Strategy: Following the creation of the Venn diagram, each student should write a 2 paragraph essay to on the sanctuary of their choice. They must include the characteristics, threats to ecosystem, location, and types of wildlife that lives there.

Closure:

The instructor will reiterate the anticipatory set once again to reinforce the concept of biodiversity. The questions that were asked in the beginning of the lesson will then be asked once again. The students should have more in depth responses at this point, and it will help the instructor to check for understanding. Each students answer should be incorporated into the discussion.

Plan for independent practice

- Students may explore the different ecosystems in their neighborhood. They may take pictures to bring show the class and also explain the threats to preserving the biodiversity around them.

Extensions for gifted students

- Students may research local conservation areas and create posters of the areas biodiversity, threats to its health, and importance of preservation.
- Students may research marine sanctuaries to compare and contrast their physical environments and the variety of species found there.

Adaptations for special needs students:

- ELL : a bilingual instructor may be needed to translate the requirements and expectation.
- Hearing Impaired: Special seating may be required as well as hearing devices.



- Intellectually Disabled: Teacher aide will be available to assist with instructions and requirements.