

Grade Level: K-2

Reef Bash!

Pre-Lesson

Time Allotment

45 minutes

Materials

Per group:

- A live animal or plant
- Approximately 20 pictures of different animals (from magazines, internet, books, etc...)

Advance Preparation

- Gather pictures of animals that live on a coral reef. Make sure you have a variety so that similarities and differences are apparent.

Lesson Objectives

Students will be able to:

- Explain what it means to have diversity of animals in a habitat.
- Understand how an animal's features impact where they live.
- Name some similarities and differences between different types of animals.

Sunshine State Standards

Name of Standard:

Kindergarten: SC.K.N.1.5, SC.K.L.14.3, MA.K.G.3.1

Grade 1: SC.1.N.1.1, SC.1.L.14.1, SC.1.L.16.1

Grade 2: SC.2.N.1.1, SC.2.L.17.2

Vocabulary

- Biodiversity
- Ecosystem
- Habitat

Background Information

Biodiversity, short for biological diversity, is the variety of living organisms on earth, or

even just in a particular **habitat** or **ecosystem**. All living organisms we know of are part of the Earth's biodiversity. Our planet is so rich with life that scientists don't even know for sure how many different kinds of organisms may exist. So far, they've identified and named more than 1.7 million species. But scientists think that there are millions of species still to be discovered. It was not too long ago that a whole new ecosystem on the deep-sea floor was discovered. An environment that was thought to be relatively void of life was found to hold a diverse community of organisms living together around deep-sea vents, thousands of meters away from sunlight.

The concept of biodiversity can be divided into three different levels; the diversity of genes within all living organisms, the diversity of species, and the diversity of ecosystems (i.e. coral reefs, prairies, forests, wetlands, etc...). It is important to understand that these three levels are all interconnected, but, for this lesson, you will be focusing on the diversity of species and the diversity of ecosystems.

Initial Discussion

1. Present a living animal or plant to the class.
2. Ask the students to talk about or draw organism that they observe and share their observations with the class.
3. Ask students:
 - a. What do you see, hear, smell, or feel as you observe this plant/animal?
 - b. How can plants/or animals be like each other?
 - c. How can they be different from each other?

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4. Explain to the students that they're about to see pictures of many different types of animals that live on a coral reef. Their job is to figure out how these animals are alike and how they are different. The students will also observe where each animal lives on the reef.

Hands-On Activity

1. Show one of the animal pictures to the class. Have the students name the animal.
2. Ask the students:
 - a. Where does this animal live?
 - b. Do you think it could live somewhere different? Why or why not?
 - c. Do you think something else could live in this animal's environment? Why or why not?
3. After the students have seen all of the animal pictures, randomly pick two pictures from the pile and ask the students:
 - a. What are some ways in which these animals are alike?
 - b. How are they different?
 - c. What are some features that help animals survive in cold environments? In hot environments? In forests or in the water?
4. Make a chart on the board to record the student's answers. Write the names of the 2 animals at the top of the chart. Have one column name the animal group that the organism it is (e.g. mammal, reptile, amphibian, bird). The second column will list the characteristics that show how the two organisms are alike and the third

column will list characteristics that show how the two organisms are different. The last column will list the features, or adaptations, the organism has to help it survive in its environment.

5. Repeat this as a group with another pair of animals until you have used all of the animal pictures on the table. Create a new chart for each pair of pictures.

Relate Activity to Concept

1. Give each student an animal picture.
2. Have the students walk around the room and pair themselves with another student that has an animal with at least 2 similar features (e.g. both have scales and both can swim- Turtle and a Fish).
3. Repeat this a few times having the students pick a new animal each time.
4. Instruct students to sit back down and explain that animals can have similarities, but they also can be very different from each other.
5. Introduce vocabulary word: Biodiversity.

Assessment

Once the activity is finished, review the lesson with the students to make sure they understand what diversity means and that animals and plants can have some similarities, but can also be very different.

Extension

To study animal features more closely, provide students with coloring sheets of many different animals. Have the students color their animal and then talk about the features of their animal to the class.