

Lesson 11

Diversity Walk

Why is diversity important to an ecosystem?

GOAL To understand that diversity protects an ecosystem

OBJECTIVES Students will:

- ✓ use search cards to identify items in an ecosystem
- ✓ discuss the importance of diversity in an ecosystem
- ✓ create a mural based on their observations of plant, and wildlife

MATERIALS butcher block paper for mural, markers, pencils, paper, search cards, clipboards

CORE CURRICULUM CONTENT STANDARDS

- **Science 3(1-5), 4(1,2), 5(3)**
- **Social Studies 9(1), 10(2,3), 13(5)**
- **Arts 1(1), 6(2)**

VOCABULARY biodiversity, preservation

PROCEDURES

1. Begin by explaining to students that diversity in a river ecosystem is important to the health of the river. Maintaining biodiversity has become a vital issue in the protection and preservation of plants and animals.
2. In an ecosystem, plants and animals are interconnected. Have students explore the concept of diversity by visiting a riparian area or a schoolyard area may be substituted.
3. Distribute one or more search cards (*may be copied onto oak tag*) to each student. Students may work with partners or partner groups. Choose an area that has more than one habitat: a forest and stream; or a field and meadow.
4. Ask students to find items on their cards and be prepared to describe them. Remind them not to pick, or remove any plants.
5. Items on cards may be obvious or they may have to look for signs (of wildlife) in area.
6. After they have found items on the cards, gather students and ask them to share what they found.
7. Discuss concept of biodiversity (biological diversity - the variety of life in all its forms and inter-relationships) while planning a community.

WHAT IS BIODIVERSITY

There are millions of species of plants, birds, reptiles, mammals, fish, shellfish, amphibians, insects, and microorganisms such as bacteria living on earth. Try to imagine them all, and don't forget to put yourself in the picture! Now think about what makes each one of those species different from each other. Think about what makes them look and act differently, what different kinds of habitats and climates they live in, what their different needs are, and how they interact with one another. Now think about your community and the many kinds of people, animals, plants, insects, etc. you find there. Think about what it takes for these critters to co-exist, and think about how you might plan for community growth (more colored boxes) while protecting biodiversity in your town.

(Adapted from endangered.fws.gov/kids/biodivrs.htm)

Search Cards		
Find two or more animal homes (animal smaller than a dog)	What is the most common plant in this area	Listen for or look for a sign of a bird
Find three different colored plants	What is the most common animal in this area	Look for plants that are dead or dying
Find a plants that grows in a stream	Find at least two signs of insects	Find an item that is not alive
Find a tree with three plants living beneath its branches	Find an animal or plant that lets you know the season is changing	Find as many different leaves as you can
Find a sign that an animal has been here	Count how many different plants are in one small area	Find a plant that is smaller than your foot
Find a sign that an animal has eaten something	Find a sign that tells you an animal lives underground	Find a sign of erosion
Find a plant with a pattern on it	Find a sign that tells you an animal lives in a tree	Find three different shaped leaves
Find a plant that needs sun and one that requires shade	Find items that are unnatural in this area	Find animal tracks

EXTENSIONS

1. Instruct students to imagine this area at night. Discuss the types of animals that might live here.
2. Discuss how this area would appear during other seasons.
3. Have students conduct a mini-biodiversity project. Have them study, identify, and count the number of plant species in a marked area.

GLOSSARY

biodiversity - the number and variety of organisms found within a specified geographic region

preservation - kept alive, intact or free from destruction; for the protection of wildlife or natural resources