



The Central Arizona Highlands Cycles, Webs and Chains Fourth Grade Field Trip Program

Overview

An ecosystem can be defined as the interrelationships among non-living and living elements: sun, air, water, earth, plants, and animals. Arizona has three distinct geologic/geographic regions: the southern deserts, the central highlands, and the northern plateau region. Ecosystems can be disrupted if key elements are destroyed. Our Lynx Creek site offers us a microcosm of the larger systems in Arizona and the perfect outdoor location for the scientific study of natural sciences.

Objectives

Students will:

1. Recognize and describe different regions in the state of Arizona: deserts, forests and woodlands, grasslands, chaparral, and wetlands, or riparian, areas.
2. Describe the elements of an ecosystem.
3. Discuss the concepts of food chains; create their own food chains using models of animals and plants.
4. Compare and contrast, through direct observation, handling and inquiry, some adaptations of herbivores, carnivores, and omnivores and which are likely to be predator or prey.
5. Synthesize the concept of an ecosystem through the creation of a chalk drawing.
6. Discover and discuss real, on-site examples of the interrelationships found in nature.
7. Through quiet, individual observation and descriptive writing discover the importance of careful observation and imagination as key tools for both the arts and sciences.

Before Coming to the Highlands Center

Our staff and/or volunteer docents visit classes to introduce the children to the Highlands Center for Natural History. The children will learn what is expected of them during their field trip to the Center, how they should prepare for the trip, and rules for dress and behavior. With the aid of large posters and puppets the children are introduced to the idea that all creatures, even the unpopular ones, are important to the healthy functioning of ecosystems. The classroom visit concludes with *In the Eyes of a Rattlesnake* activity.

On-site Learning Schedule

Arizona Rug Map Ecosystems

Using a big rug map of the state of Arizona, the students interact with the instructors to determine the main constituents of any ecosystem, and the differences between each—the deserts, forest and woodland, chaparral, grasslands, and riparian areas. Using a variety of animal miniatures, students create and discuss examples of different food webs that occur in these systems.

Drawing Connections

Staff leads a chalk drawing activity to reinforce the concept and constituents of an ecosystem. This ends with the sharing and explanation of each student's creation.

Skulls and Skins

The students and staff discuss the meaning and give examples of omnivores, carnivores, and herbivores. Each child then has the opportunity to handle and observe a mammal skull and learn about the role of these animals in our ecosystems by observing the skull characteristics, i.e. teeth, eye sockets, and nose.

Cycles, Webs, and Chains Trail Walk

The focus of this trail hike is for the children to explore, discover, and explain some of the interrelationships in nature. Docents lead the children along the trail looking for signs of animals and discussing the interdependency of life. Each trail walk differs from the next as we find different signs of life and clues to different relationships between, for example, animals and their food source, plants and their pollinators.

Learning from the Quiet

This is a quiet activity when the children spend a little time alone, tuning into their senses and the natural world around them. They write down descriptive sentences (or poems, or short stories) of their experience. Docents work with the children to tune in their senses to the beauty around them. The group will be asked to create some examples of descriptive sentences from this experience.

Conclusion Story —The Most Beautiful Thing

A native American legend, this is a story about learning that nature's beauty should remain unaltered and unharmed where it is in the wild places; that every small part of the natural world has value and is of importance.

***If you have any questions, please call the Education Department at 776-9550 or
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