FALL

Create-A-Beast

level 1 post-visit activity for fall

Overview:	Based on a discussion of habitat and adaptation, students will create a "new" animal which is perfectly adapted to a selected habitat.
Location:	Classroom.
Objectives:	Students will explore adaptations as they create "new" animals and examine the ways in which animals obtain food, water and shelter.
State Goals:	12.B.2b, 4.B.2a
Materials:	Chalk board or easel with flip chart pad. Chalk or marking pens. White, unlined paper, colored pencils or markers, construction paper, and tissue paper.
Time:	Two 50-minute class periods
Vocabulary:	habitat, adaptation, strategy, defense
Copy Pages:	None

Background

Through a process of evolution, each animal species has adapted to its habitat in unique ways. These adaptations include development of strategies for defense, finding food and water, finding shelter, and dealing with the changing seasons.

Most animals are considered prey species, meaning that they are food for something else, and as such must develop one or more strategies for defense against predators. These strategies may include: protective coloration or camouflage, speed, the ability to climb, the development of horns or antlers, the use of toxic or poisonous secretions, the ability to look like another animal, the ability to temporarily increase in size, nocturnal habits. For some species, these defense adaptations may also play a role in courtship and mating. This is particularly true of animals with horns or antlers, where the size of the horns or antlers is used to determine ranking amongst the males, which then determines which males will be able to breed with females.

The ability to obtain food and water is essential to the survival of most animals. If you are a grazer, you need grass. If you are a browser, like deer, you need a supply of woody shrubs. If you feed on a particular kind of animal such as small fish, you need that. If your food source is abundant at some times of the year and scarce at other times, you need a way to store reserves of food. Some animals accomplish this by actually gathering and storing the food source, while others store food by building up large body-fat reserves, which they use during times of food scarcity.

Are you a beaver that builds a lodge out of sticks, which also provide some of your food? Are you a ground squirrel that digs a burrow? Are you a bird or small mammal that lives in the cavities of trees? Are you a bird that builds a nest out of a certain kind of material and in a particular species of tree? Are you a cave dweller? Do you dig a den? These are just some of the ways animals find shelter. But not all animals need or use shelter. How do you deal with the changing seasons? Do you, like some birds and insects, migrate to other areas during our winter? Do you, like deer and coyote, try to remain active through the winter, in which case you need to be able to find food and cope with cold weather? Do you, like the bear and some small mammals, build up fat reserves and find some place to sleep through the winter? Are you, like most reptiles and amphibians, an animal that goes into a state of hibernation? These are all strategies that various species use to cope with the changing seasons. Of course there are some places where there are such small changes in the

seasons that animals do not need to be concerned with seasonal change.

A habitat is the place that provides all the things, both physical and biological, necessary for the survival of a particular species. Examples of habitats might be woodlands, prairie, wetlands, marsh, pond, stream, and so forth. An ecosystem, such as the tallgrass prairie, may be made up of many habitats that exist side by side or overlap. Habitats are most often described based on the dominant vegetation.

Preparation

Gather the needed materials and arrange the classroom for the discussion portion of the activity. You may also want to make arrangements to display the students' art work following the completion of the activity.

Procedure

1. Lead a discussion of the strategies animals use to defend themselves, find food and water, and find shelter. Defense strategies may include camouflage, speed, ability to climb, antlers or horns, poison, and so forth.
2. Lead a discussion of the many habitats that the class has seen as a part of their site visit and how animals that use those habitats have adapted to them.
3. The discussions in Steps 1 and 2 should generate lists of habitats, animals, and the ways they have adapted to those habitats so that they can defend themselves, find food and water, and find shelter.
4. Distribute the white, unlined paper to the students. Ask them to select a habitat from the list developed in Step 2. Tell them to design a "new" animal perfectly adapted to that habitat. As they design their animal, they must be able to describe how their animal is adapted to that habitat. You may want the class to select one habitat that the whole class will use as they each create their beast.
5. Have the students take turns describing their animal and its adaptations to the rest of the class.

Assessment

Name three or more needs a habitat must fill.
Name three or more habitats.
Give an example of each kind of strategy for:

- defense against predator
- obtaining food and water
- finding shelter
- dealing with changing seasons

Extensions

None