

Insect and Animal Science Introductory/Extension Activities

Activities to introduce or extend the scientific concepts or process skills addressed in the following Exploration Cards:

Science is in...



Animals Around Us
Sorting Animals
Finding Insects
Insect Sorting Game
Habitat Game
Wetland Plants & Animals
Chewing



Activity Preview

Food Web Game: Create a model food web with your students. Investigate the

delicate connections between plants and animals.

Beaks, etc: Explore how different animals choose different types of food

using everyday "grabbing" tools as pretend mouths.

Crouching Tiger, Hidden Insect: Students create insects that can hide in your classroom.

Animal Signs: Read a book, and discuss what animal signs can teach us.

Food Web Game

Materials

animal and plant pictures (like those from the Wetland Plants and Animals Exploration Card), string, paper clips

What to do:

Attach a picture of an animal or plant to each student's shirt. Each student's goal will be to match this picture to another student's plant and animal picture. Connections are made when the student identifies a plant or animal that it is eaten by or it can eat. (Many living things are both prey and predator in the food web.)

To begin to form a web, identify two students whose plant or animal pictures can be connected. Ask those students to come to the front of the room, join hands, and explain the connection. Then, ask other students in the class if they think the plant or animal in their picture would connect to either student in the original pair. Bring another student up to link hands with one of the two students, as he/she explains the connection. Continue in the same way, adding one student at a time, each identifying a way to connect to any of the plants or animals already in the web. Encourage students to find more than two connections (two hands) to one student, use string to make more connections.

As the students find connections they will begin to form a web. Challenge them to think: *What would happen if one of the plants or animals were no longer connected?* Pick one student to sit down. Ask the students who were attached to that student to find new connections.

Together, consider how the loss of a plant or animal affected the food web (How did the lost plant or animal affect the plants or animals to which it was connected?).

Science Information

A food web demonstrates how living things in an environment are connected. Made up of many small food chains, the food web demonstrates that living things are connected in multiple ways. The key to this food web activity is that the removal of a plant or animal causes instability. Each student represents a species of animal or plant in the ecosystem, that when removed, threatens the balance of the system.

Beaks, etc.

Materials

tweezers, tongs, staple remover, thick mittens, pipe cleaners, paper wads, strips of construction paper, packing peanuts

Procedure

Cut pipe cleaners, paper wads, packing peanuts and strips of construction paper to various sizes to represent food, and scatter them around.

Give each student a tool to use that will represent a bird mouthpart (tweezers, staple remover, mittens).

Give students an opportunity to collect food. Talk about which types of food they tended to grab with their tool. Encourage students to think about how the size, shape, and other characteristics of a mouth might affect a real animal's eating habits.

Science Information

An animal or insect's mouth is an adaptation that enables an animal or insect to eat certain types of food that are available in their area. This activity will help students begin to think about how an animal's characteristics are important in how they survive.

Crouching Tiger, Hidden Insect

Materials

construction paper, pipe cleaners, markers or crayons, tape, glue, etc.

What to do:

Start a discussion about the ways insects can protect themselves.

Focus students on the idea that insects can protect themselves by hiding. Point out that some insects have special colors or patterns that allow them to hide, and that this is called camouflage.

Give students a chance to invent an insect that would be able to hide somewhere in the classroom. While each student will have some freedom in designing an insect, to be an insect their creations must have three body parts (head, thorax, and abdomen) and six legs. Students might also want to include wings, antenna, and eyes, for example.

When completed, allow students to place their insect in its hiding place. Encourage students to find one another's insects.

Supporting Science Information

The common traits of all insects are six legs, three body segments, and a hard outer skeleton (an exoskeleton). Various species of insects also have antennae, wings, or stingers. Although many people interchange "bug" and "insect," a bug is actually a type of insect with a beak-like mouthpart and a triangle-shaped head.

The color or markings of some insects offer protection by making the insect look like something else in nature. This is called camouflage. Insects are also protected by their hard outer skeletons, by having scary body parts that intimidate predators, or by mimicking the behavior of other animals.

Animal Signs

Materials

In the Woods: Who's Been Here?, by Lindsay Barrett George

What to do

Read *In the Woods: Who's Been There?*

Discuss how the children in the book "see" animals in the woods. Ask students to consider - *What animals are frequently seen, and what animals are seen less frequently?*

Talk about animal signs you can find in your own neighborhood. Ask students - *If you can't see these animals, how do you know they were there? What kinds of animal signs can you find in your neighborhood?*

Supporting Science Information

Some signs that an animal has visited an area may include tracks, scat, feather or fur, abandoned bird nests, squirrel dreys, or spider webs, partially eaten food, and shells. More and more frequently, people in suburban and even urban areas can find signs of deer. Look out for torn vegetation that deer have been munching on. Other signs of deer include trees with rub marks on them. The rub marks are formed when the bucks rub their antlers on the tree to mark their territory and rub the tree bark off.

Many people are also familiar with the signs that mice leave behind. These include chewed bags or boxes, and mouse droppings.