#### **GRADE 4**

### MATERIALS

 pipe cleaners (green, red, blue, yellow, brown)

#### **KEY WORDS**

- camouflage
- prey
- predator

# **STANDARDS**

- SCI.4.3.3
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### **OBJECTIVES**

- Students will learn that animals of different species interact with each other in several ways, one of which is to eat or be eaten by another animal.
- Students will learn that while hunting animals (predators) have efficient methods to capture prey, the hunted animals (prey) have equally effective strategies to avoid capture.

### **BACKGROUND INFORMATION**

- Sharp claws, powerful beaks, deadly stingers, slashing teeth--all are weapons used by various
  predators, animals that hunt other animals for food. Besides these well-known physical characteristics,
  predators also rely on their speed, stealth, and sometimes elaborate disguises to aid in their search
  for food.
- Prey animals have developed equally numerous ways to avoid capture. Each prey species must have some defensive strategy against would-be predators or be wiped out completely. This, of course, would lead to a decrease in (and eventual elimination of) the predator species, as hunters would compete for fewer numbers of prey animals.
- Also called cryptic coloration, camouflage is used by prey as well as predators to fool an enemy. Many
  animals resemble objects in their environment (leaves, sticks, tree bark, rocks, flowers) that would not
  attract attention or actually be shunned several types of caterpillars look like bird droppings as they
  sit motionless on a leaf. Some animals (certain geckoes, moths, fish and snakes) also have tails that
  resemble their heads, thereby confusing the predator into striking at a less vital area.

# **PROCEDURE**

- Cut colored (green, red, blue, yellow, brown) pipe cleaners into three pieces and have students twist them into "worms." Scatter a known number of "worms" of each color over an area of playground, grass, or bare soil. Each student is given the name of a bird to impersonate, e.g., robin, thrush, flicker, sparrow, and crow.
- One at a time, call out the names of the birds, and have each bird "fly" over the area and pick up the first worm that he sees. As students return with a worm, they should lay them on a piece of white paper in the order they were picked up. When all students have made at least one flight, have them consider the color sequence of the worms on the paper.







### RECOMMENDED ASSESSMENT

• Discuss the results of the activity with the class. Did any trends or patterns emerge? How did the color sequence relate to the background color? Discuss the relationship between coloration and the usual habitat of real worms. What other animals depend on camouflage to keep from being preyed upon?

## **EXTENSIONS**

- Try doing the same activity, but on a different colored background. Note any differences.
- To further develop students' understanding of the relationship between predators and prey, look for the activity entitled "The Coyote and the Skunk", which is about mammalian defense mechanisms.





