

CATCH ME IF YOU CAN



BENCHMARKS AND TASKS

SC.D.1.1.2 The student knows that life occurs on or near the surface of the earth in land, air and water.

SC.F.1.1.4 The student understands that structures of living things are adapted to their function in specific environments.

SC.G.1.1.2 The student knows that plants and animals are dependent upon each other for survival.

SC.G.1.1.3 The student knows that there are many different plants and animals living in many different kinds of environments (e.g., hot, cold, wet, dry, sunny, and dark).

- The student compares and contrasts to discover how animals are alike or different in the way they look and in the things they do.
- The student identifies structural characteristics that enable plants and animals to survive in different kinds of places.
- The student understands that animals eat plants or other animals for food and may also use plants (or other animals) for shelter and nesting.

KEY QUESTION

How does protective coloration help an animal survive?

BACKGROUND INFORMATION

In nature, we think of two basic types of animals – those that eat plants, **herbivores**, and those that eat other animals, **carnivores**. There are some animals that eat both plants and other animals, and they are called **omnivores**.

Animals whose survival depends on locating and capturing other animals must have highly developed senses, especially hearing and smelling. Animals that are the intended prey have a variety of assets to help them survive. Perhaps the greatest of these is **natural coloration** that helps them blend into their surroundings, **camouflage**. Animals that are not easily seen have greater chances of escaping detection and capture. Those animals that survive will pass on these protective characteristics to their young.

MATERIALS

Teacher

1 box colored toothpicks
watch or 3-minute timer

Per student

1 plastic baggie
Predator-Prey Tally Chart (on board, chart paper or an overhead transparency)

TEACHING TIPS

1. Count out equal numbers of each toothpick color.
2. Go outside ahead of time and select a convenient, grassy area (about the size of a small backyard) for the game. Scatter the toothpicks before bringing the students outside (or arrange to have someone do it for you at a certain time).

ENGAGE

1. Discuss the terms predator and prey.
2. Ask:
Can you think of any animal pairs in which one animal might chase another animal and eat it for food? Which is the predator? the prey?
3. Have the students think of other predator-prey relationships and record them on the board.
Ask:
Can a prey also be a predator?
Can a predator also be a prey?

EXPLORE

1. Before going outside, tell students the number of toothpicks of each color.
2. Give each student a plastic baggie and then proceed outside to the designated area.
3. Explain to students that the toothpicks represent the insect prey and students will be the “predators”. Tell the students that when you give the signal, they will have three minutes to collect as many “prey” as possible. Discuss safety – students will be hurrying and looking at the ground, not at where they are going!
4. After students have gathered the “prey”, return to the classroom. Have students count the number of each color of prey that they caught and record on the class Predator-Prey tally chart.

Predator – Prey Tally Chart

	Red	Blue	Green	Yellow
Number of Toothpicks Scattered				
Number of Prey Caught				
Number of Survivors (Difference)				

EXPLAIN

Discuss:

Which prey was the easiest to find? Why?

Which prey was the most difficult to find? Why?

Which prey has the best chance for survival?

If we were at the beach instead of on the grass, would the count have turned out the same way?

Why do you think we do not find many brightly colored animals in the Arctic regions?

If you were the prey and lived in the schoolyard, what color would you like to be and why?

EXTEND/APPLY

On the board, have students list the different types of animals that can be found in a pet shop: dogs, cats, birds, mice, gerbils, snakes, iguanas, turtles, fish, ferrets, rats, hamsters, etc. Ask students to imagine that all of the pets are loose in the pet store.

Which animals would be the predators and which would be the prey?

Would any animals be both predator and prey?

ASSESSMENT

Teacher assessment through observation should include the following criteria:

- Tasks have been completed by the student.
- Student answers to questions should show evidence of conceptual knowledge.
- Acquired vocabulary should appropriately demonstrate understanding.
- Student's questions should be probing, on task, or reflect the processing of an essential understanding.