



Follow-up Activity: For Students

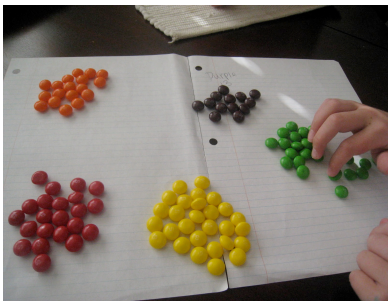
Life Science 28: Camouflage and Mimicry

Introduction:

In this lesson, camouflage & mimicry were explored as examples of adaptations adopted by animals to increase their chances of survival. What can an animal do to keep from being a predator's dinner? To survive, some animals use camouflage so they can better blend in with their surroundings. Camouflage is a set of colorings or markings on an animal that help it to blend in with its surroundings, or habitat, and prevent it from being recognized as potential prey.

Activity: Candy Camouflage

In this science activity, you and your friends will become the hungry predators and you'll hunt for different colored candies. But it may not be as easy as it sounds—some of your prey will be camouflaged by their habitats. Are you ready for the challenge?



Materials:

- Six plastic bags (one bag for M&Ms; 5 bags for Skittles, separated by color)
- Plain M&Ms; at least 10 of each color (at least two 1.69-ounce packages may be needed)
- Skittles; at least 60 of each color (one 16-oz package)
- Metal pie tin or other deep plate
- Cups for collecting candies during the hunt; one cup per predator
- Timer
- Data charts (attached)
- 2-4 Volunteer predators to be hungry M&Ms-feasting birds

Preparation:

1. Place 10 M&Ms of each color (yellow, blue, green, brown, red, orange) into one plastic bag
2. Place 60 Skittles of each color (orange, green, red, yellow, purple) into separate plastic bags. This means you will have 5 separate bags of Skittles: one bag containing only red, one bag containing only orange, one bag containing green, one bag of purple and one bag of yellow)
3. Explain the game to your volunteer predators. Predators are hungry M&Ms-feasting birds.
 - a. Predators hunt with their beak (make a beak with thumb and pointer finger)
 - b. M&Ms are the prey
 - c. Skittles make the birds sick and represent the habitat in which the M&Ms live and use as camouflage. Skittles should be avoided.
 - d. Players will have 20 seconds to hunt during each round of the game.

Procedure:

1. Have predators sit in a circle. Each predator should have a cup.



- Place the pie plate in the center of the circle where everyone can reach.
- Pour the plastic bag of M&Ms and one plastic bag of Skittles containing a single color into the pie plate and mix the candies together
- Set the timer for 20 seconds.
- When you say "Go," predators should begin hunting. Candies should be placed into the cup during the hunt. Players should stop when the timer beeps.
- Each player should count the number of each M&M's color that they collected and record their numbers in Data Table 1 (there is one column per volunteer). If a player collected any Skittles, record the number in the bottom row of their column, (labeled "Skittles"). Remember that Skittles make the M&M's birds sick and should be avoided.
- Once data has been recorded, put all the M&M's back in the plastic bag. This includes the M&M's that people picked, as well as the M&M's that were still in the pie plate. The plastic bag of M&Ms should now be like you prepared it in Preparation Step 1.
- Remove the Skittles you used for the habitat (these can be saved for eating after the activity)
- Repeat the 20-second M&M hunt with the other prepared bags of Skittles until you have tested each Skittles habitat (separately) with the M&Ms.
- Record all your data in Table 1. Add collection totals for all the volunteers and record final numbers in Summary Table 2.

TABLE 1: Data	Habitat																			
	Orange Skittles				Yellow Skittles				Red Skittles				Green Skittles				Purple Skittles			
Candies Collected	vol #1	vol #2	vol #3	vol #4	vol #1	vol #2	vol #3	vol #4	vol #1	vol #2	vol #3	vol #4	vol #1	vol #2	vol #3	vol #4	vol #1	vol #2	vol #3	vol #4
Orange M&Ms																				
Yellow M&Ms																				
Red M&Ms																				
Brown M&Ms																				
Green M&Ms																				
Blue M&Ms																				
Skittles																				

TABLE 2: Summary	Habitat				
	Orange Skittles	Yellow Skittles	Red Skittles	Green Skittles	Purple Skittles
Total Candies Collected	add totals for all volunteers	add totals for all volunteers	add totals for all volunteers	add totals for all volunteers	add totals for all volunteers
Orange M&Ms					
Yellow M&Ms					
Red M&Ms					
Brown M&Ms					
Green M&Ms					
Blue M&Ms					
Skittles					

Ending Questions:

While you enjoy your candy snack, examine the results and consider the following questions.

- Did the M&Ms that were the same color as their habitat get picked less frequently? Why or why not?
- Did the brown M&Ms get picked less frequently in the purple Skittles habitat than any other M&M's color?
- Do you notice any interesting patterns between the color of the Skittles habitat and the color of the M&M's that were picked?
- What is different about the blue M&M's than any of the other M&M prey?

Additional Resources:

- Camouflage videos: http://www.harcourtschool.com/activity/science_up_close/110/deploy/interface.html
- Camouflage Interactive: <http://ngm.nationalgeographic.com/2009/08/mimicry/mimicry-interactive>

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