# Catch Me If You Can! Animal Camouflage

In the wild, there are animals who are hunters (predators) and those that are hunted (prey). A skilled predator is always on the prowl for fresh prey. What can an animal do to stay off the menu? Find out how some animals survive by using camouflage to blend in with their surroundings. In this activity, participants will be the hungry predator hunting for prey. You might be surprised to see which individuals avoid your grasp!

## Materials:

- Catch Me If You Can Worksheet (PDF below or editable online version)
- Tray or container
- Candy corn
- M&M's sorted into the following colors:
  - Yellow - 20 count
  - Brown - 20 count
  - Red - 20 count
  - Green - 20 count
  - Orange - 20 count
  - Blue - 20 count
- Or you can find other materials to substitute for the candy corn and M&Ms if you don't have those!
- Timer

## Process:

In this activity, we will be exploring the adaptation of camouflage and how it helps animals survive in the wild.

The M&Ms are the prey who live in the candy corn forest and they need to avoid being seen and eaten by the predator! In this population of M&Ms, there are individuals who were born with one of the following colors: yellow, brown, red, green, orange, and blue. Soon you will find out that some have the advantage over others.

# Stay at Home Science

Prospect Park Zoo
Bronx Zoo
Central Park Zoo
Queens Zoo
New York Aquarium
Wildlife Conservation Society Parks

Note: This activity can be done individually, in pairs, or in groups. If you plan to do this in groups, make sure to have 1 set per group (each set includes the materials listed above). Also, you can substitute the candy corn and M&Ms for other food items such as pasta, beans, and rice or craft materials like construction paper, beads, and poms poms. Just as long as it simulates a habitat background and individual prey, be as creative as you like!

1. Making predictions:
    a. Which M&M prey do you think will be the easiest for the predator to find? Explain why. (hint: think about their habitat or where they live)
    b. Which M&M prey do you think will be the hardest for the predator to find? Explain why.
2. Place the candy corn in the tray or container. (*Note: make sure that you have enough candy corn to cover the bottom of the tray or container)
3. Sort the M&Ms into the following groups and set aside:
    a. Yellow - 20 count
    b. Brown - 20 count
    c. Red - 20 count
    d. Green - 20 count
    e. Orange - 20 count
    f. Blue - 20 count
4. Once the M&Ms are sorted into like colors, count 6 of each and place them in the container of candy corn. (*Note: make sure that the predator doesn't peek!)
5. If in pairs or in a group, make sure to assign roles and designate 1 person to be the "predator" and another to be the timekeeper.
    a. The predator will be eating as many prey (m&m's) as possible within the 10 seconds.
    b. The timekeeper will keep track of the time and let the predator know when 10 seconds have passed.

6. The timekeeper will set the timer to 10 seconds.
7. Once the timer starts, the predator will hunt and "eat" as many prey M&Ms until time is up. (*Note: the predator can only pick up 1 M&M at a time and only with 2 fingers - pointer and thumb)
8. To calculate who survived the hunt, count how many of each color M&M is left in the tray/container and remove them from the tray/container.
    a. # of Yellow survived =
    b. # of Brown survived =
    c. # of Red survived =
    d. # of Green survived =
    e. # of Orange survived =
    f. # of Blue survived =
9. For each color that survived (calculated in step #8), double it (multiply by 2). This simulates reproduction and will become the starting population for the next round of hunting.
    a. (# of Yellow survived) x 2 = Yellow Starting Pop.
    b. (# of Brown survived) x 2 = Brown Starting Pop.
    c. (# of Red survived) x 2 = Red Starting Pop.
    d. (# of Green survived) x 2 = Green Starting Pop.
    e. (# of Orange survived) x 2 = Orange Starting Pop.
    f. (# of Blue survived x 2) = Blue Starting Pop.
10. Gather each color's starting population and place them to the tray/container with candy corn.
11. Repeat steps #7-11 for 2 more rounds.
12. Follow Up:
    a. After all the rounds of hunting, which prey survived?
    b. Think back to your predictions. Did they match the results? Why or why not?

# Catch Me If You Can! Worksheet

In the wild, there are animals who are hunters (predators) and those that are hunted (prey). A skilled predator is always on the prowl for fresh prey. What can an animal do to stay off the menu? Find out how some animals survive by using camouflage to blend in with their surroundings. In this activity, participants will be the hungry predator hunting for prey. You might be surprised which individuals avoid your grasp!

In this activity, we will be exploring the adaptation of camouflage and how it helps animals survive in the wild.

The M&Ms are the prey who live in the candy corn forest and they need to avoid being seen and eaten by the predator! In this population of M&Ms, there are individuals who were born with one of the following colors: yellow, brown, red, green, orange, and blue. Soon you will find out that some have the advantage over others.

Note: This activity can be done individually, in pairs, or in groups. If you plan to do this in groups, make sure to have 1 set per group (each set includes the materials listed above). You can substitute the candy corn and M&Ms for other food items such as pasta, beans, and rice or craft materials like construction paper, beads, and poms poms. Just as long as it simulates a habitat background and individual prey, be as creative as you like!

**Parental Generation**

| Color | Starting Population for Round 1 |
|---|---|
| Yellow | 6 |
| Brown | 6 |
| Red | 6 |
| Green | 6 |
| Orange | 6 |
| Blue | 6 |
| TOTAL | 36 |

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**Making Predictions:**

- Which M&M prey do you think will be the easiest for the predator to find? Explain why. (hint: think about their habitat or where they live?

- Which M&M prey do you think will be the hardest for the predator to find? Explain why.

*Now that you made your predictions, let's see what happens!*

**Round 1**

| Color | Starting Population | Amount Eaten | Ending Population<br># of M&Ms left in the tray/container<br>(Starting Pop. – Amount Eaten) |
|---|---|---|---|
| Yellow | 6 | | |
| Brown | 6 | | |
| Red | 6 | | |
| Green | 6 | | |
| Orange | 6 | | |
| Blue | 6 | | |
| TOTAL | 36 | | |

***Amount Eaten*** = *how many M&Ms of each color you took out of tray/container*
***Ending Population*** = *how many M&Ms of each color are left in the tray/container*

For Starting Population for Round 2,
**double** the Ending Population form Round 1

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Round 2

| Color | Starting Population | Amount Eaten | Ending Population<br># of M&Ms left in the tray/container<br>(Starting Pop. – Amount Eaten) |
|---|---|---|---|
| Yellow | | | |
| Brown | | | |
| Red | | | |
| Green | | | |
| Orange | | | |
| Blue | | | |
| TOTAL | | | |

For Starting Population for Round 3,
**double** the Ending Population form Round 2

Round 3

| Color | Starting Population | Amount Eaten | Ending Population<br># of M&Ms left in the tray/container<br>(Starting Pop. – Amount Eaten) |
|---|---|---|---|
| Yellow | | | |
| Brown | | | |
| Red | | | |
| Green | | | |
| Orange | | | |
| Blue | | | |
| TOTAL | | | |

Follow up:

- After all the rounds of hunting, which prey (color) survived?
- Think back to your predictions. Did they match the results? Why or why not?

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Share your findings and photos with us
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