

Best Lesson

Grade Level: First grade

Title of Lesson: Camouflage: “Now You See Me, Now You Don’t”

Unit Title: Life Science

Performance Standard(s) Covered: What standards are you covering in your lesson? Include the standard title and text

SI.CS.5. Students will communicate scientific ideas and activities clearly.

- a. Describe and compare things in terms of number, shape, texture, size, weight, color, and motion.
- b. Use simple pictographs and bar graphs to communicate data

SI.CS.6. Students will be familiar with the character of scientific knowledge and how it is achieved. Students will recognize that:

- a. Science involves collecting data and testing hypotheses

SI.L.1. Students will investigate the characteristics and basic needs of plants and animals.

- a. Compare and describe various animals—appearance, motion, growth, basic needs.

Essential Question: What question are you answering with your lesson?

- What is camouflage?

Objective: What is the goal of your lesson? What will your students accomplish during the lesson?

- To make the essential question more specific, I want the students to be able to identify what camouflage is and understand how animals utilize this tool in their environments. In addition, I would review what predators and preys are and how each of these groups can use camouflage in their favor—whether it be to hide from being eaten, or blend in with their surroundings to sneak up on their prey.

Key Words and Terms:

- Camouflage
- Predator
- Prey

Learning Activity

Abstract (limit 100 characters): Brief overview of what the lesson is

This lesson will include two parts, conducted as a class on two separate days. The lesson would begin with the question: What is camouflage? *Why* is camouflage beneficial? To test their hypotheses, a game of “Predator vs. Prey” will be conducted outside in which the students (predator) are assigned to pick up as many colored pipe-cleaners, the ‘worms’ (prey), as they can find. As a class, record the data on a bar graph to display the results and discuss. The students should realize that most of the pipe-cleaners picked up were bright colors, and those that were not blended in with their surroundings. The second part of the lesson will serve as a review and have the students design a butterfly that can camouflage with an object or location in their classroom.

Materials Needed: List all materials needed and number (one per student, one for class, etc.)

- Butterfly template (one per student)
- Pipe-cleaners, cut (at least 15 per each color used)
- Stopwatch
- Crayons or colored pencils
- Scissors
- Tape

Safety Concerns: Are you using anything sharp? Hot? Eating anything?

- Fortunately, there are no major safety concerns associated with this lesson. However, as always, students should be instructed to only use scissors on their paper and to not point them at other students.

Procedure: List step by step what you are doing in the activity. What did you need to do to prepare? What are the students doing during the activity?

In Preparation:

- I made sure to have a large amount of pipe cleaners (fifteen per each color chosen) and cut into smaller pieces---these would resemble the ‘worms’ or prey of the experiment. Distribute these outside on the grass/dirt prior to starting the lesson.
- I would also make sure to have enough copies of the butterfly template made, one per student in the class.
- In addition, I would create a short powerpoint with examples of pictures that demonstrate camouflage in action, both with animals and humans.

- During the Lesson:

1. I would begin the lesson by asking the class what they think camouflage is, and have them provide examples of this. A short pre-made powerpoint would then be shown to display examples of camouflage, and how the animals or humans are able to blend in with their surroundings due to a specific color or pattern.

a. I would then ask *why* animals use camouflage in their environments to help them survive, and how they achieve this. (Students will pose different thoughts and opinions, but the following experiment will allow them to confirm their ideas).

2. Next, conduct a game of “Predator vs. Prey” outside. The students will be assigned as the ‘Predator’ (a hawk for example) in search of the food, their ‘prey’ (the worms). The class will be given 30 seconds to pick up as many pipe-cleaners as they can find.

a. After 30 seconds, instruct the kids to stop and return to the classroom with the pipe-cleaners they have found. As a class, record the results of how many of each color was found---this could be done as a bar or pictograph.

b. After collecting the data in a graph, ask the students what they observed. Are there more of certain colors than others? Why do you think this happened? (Ultimately, the students should make the connection that some of the worms were harder to find because they were camouflaged, and that this would make it harder to be eaten by a predator).

3. The second part to this lesson would serve as a great tool to see if the students have truly mastered the concept of camouflage and how animals achieve this in nature. For this part, give the students a picture of a butterfly on white paper. They would then be assigned to pick a spot in the classroom to camouflage their butterfly, whether it be a solid space or an object with a pattern---they can be as creative as they want to be.

a. After the students have finished coloring and cutting out their butterflies, they would be allowed to tape their final product in the specific area they chose to camouflage it with. This allows them to actually see how animals can 'hide' in their environment when their color is similar to the background it is on.

Notes and Tips: How would you do this differently? What worked really well?

- If repeating this activity with multiple groups, make sure to give yourself enough time to hide the 'worms' again in whatever environment you choose before starting the lesson again with a separate group.

References: If you got this lesson from another lesson online (which is ok!!) please link it here

<http://firstgradewizards.blogspot.com/2012/03/learning-all-about-camouflage.html>