

Title: CAMOUFLAGE

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Grade Level: 3-4

Concepts:
2. Ecosystems
3. Carrying Capacity

Disciplines:
1.Science
2.Math
3.Language Arts
4.Social Studies
5.Art

Objective:

Students will engage in an activity wherein camouflage determines the outcome for each student. Skills of sorting, categorizing counting, data keeping, hypothesizing and theorizing will be used.

Rationale:

Animals use many means to avoid becoming prey to predators. Examples are kicking, scratching, biting, stinging, or being fleet of foot or fin. One often-used means of escape is that of camouflage. The animal whose coat pattern matches the background, or "eye spot" makes it seem to be traveling in the other direction, etc. lives to pass on this viable trait or coat pattern. Looking like an evil tasting animal is another whole set of "look alike animals who cash in on the defense mechanism of the other.

Materials Needed:

One set of colored toothpicks with equal numbers of each color (red, green, yellow or natural, dark blue or brown). Count the number of each color you have at the start.

Directions/Activity:

Use as many pictures of examples of camouflage, on land and in the sea, as you can find for discussion purposes. A faun is speckled and blends with the ground of dappled sunlight through the leaves. A Viceroy butterfly looks like a poisonous Monarch and so both are avoided by birds, although the Viceroy would make a good meal. You might relate this to the Armed Forces use of camouflage in uniforms and equipment.

Discuss the means of avoiding being seen by the "hunter" each of them represents.

Distribute, or broadcast, the toothpicks on the lawn in reasonably short grass. Working in teams, have the students find the toothpicks in an allotted time, depending upon the age of student and conditions of the ground (5 to 10 minutes)

CAMOUFLAGE

Each team will then sort their collective toothpicks and fill out the data sheet with the number of each color they found.

Depending upon the grass (whether it is green, or perhaps full of dry yellow grass clippings, patches of soil, etc.) each team will discover that they have the least green (or yellow, etc.) toothpicks. Add up all the team results and reveal the number distributed at the start. Older students can express the picks found as a percentage, for each color.

1. Ask the class why they were unable to see (whichever) toothpicks that are not found? Let them suggest the reasons. Might a colorblind child find all the colors? What if the grass had red leaves mixed in it, such as when the mahogany trees turn color?
2. Draw pictures of camouflaged animals.
3. Write a story about the beneficial use of camouflage to a particular animal.
4. Some students might like to learn about and report the military aspects of camouflage such as the painting of roofs against air reconnaissance. How does infra-red photography operate in this case?

Sample Tally Sheet

THE GREAT TOOTHPICK HUNT TEAM Member:			
GREEN	RED	YELLOW	BLUE
Team Total Class Total Original Total *SBC Difference *Saved by Camouflage	Team Total Class Total Original Total *SBC Difference	Team Total Class Total Original Total *SBC Difference	Team Total Class Total Original Total *SBC Difference