Camouflage and Environment

Students will make butterflies of various colors and then they will experience the advantage that butterflies that are the same color as their environment have against predators.

Grade Level: 3 - 6th
Subject: Arts, Environmental, Science
Length of Time: 30 Minutes

Objectives & Outcomes

Students will be able to identify various animals that use camouflage as a defense mechanism.

Materials Needed

- 10 6X8 inch (approximately) sheets of red construction paper
- 10 6X8 inch (approximately) sheets of blue construction paper
- 10 6X8 inch (approximately) sheets of orange construction paper
- 5 large sheets of Red construction paper
- white writing/drawing paper
- scissors
- markers or colored pencils
- pencil

Procedure

Opening to Lesson

- Let each student choose a piece of red, blue or orange construction paper (you can choose different colors for the class, but only 3 colors total).
- Lead students in cutting out butterflies from the paper that they have.
  - Have students make 4 butterflies each, they don’t have to be of equal size.
  - They are NOT to draw on the butterflies or fold them, they should stay flat with no markings.

Body of Lesson

Guided Practice

- The teacher will then lie out 4 large sheets of red construction paper, or enough to cover a desk or 2.
- Call students up a few at a time to bring their butterflies and spread them out on the colored construction paper.
- All of the students’ butterflies should be spread out evenly on the papers.
Now ask students to raise their hand if they made red butterflies, count the students and multiply the number of students by 4 to figure out how many red butterflies there are.

- Ex. 10 x 4 = 40 red butterflies

Now ask students to raise their hand if they made orange butterflies, count the students and multiply the number of students by 4.

- Ex. 10 x 4 = 40 orange butterflies

Now ask students to raise their hand if they made blue butterflies, count the students and multiply the number of students by 4.

- Ex. 10 x 4 = 40 blue butterflies

Now have students line up and tell them that they will be predators. They are to quickly choose 1 butterfly and then keep walking. They should choose the first one they find without looking carefully.

Have students repeat this step multiple times. (but they only take 1 butterfly at a time.)

Monitor students and make sure that they are choosing quickly and not searching for their own or their friend’s butterflies.

When you see that one of the colors of butterflies has “gone extinct” stop the line and have students go back to their seats.

Count the remaining butterflies. You should have 0 butterflies from one group (maybe blue), maybe you will have less than 10 of the other group (maybe orange) and you should have nearly all of the butterflies from the red group, as the red butterflies were harder to spot on the red construction paper.

Find a student that has all blue butterflies, ask them why they “hunted” only blue butterflies.

Lead a discussion on why the blue (for example) group went extinct before the other group.

Ask them what advantage the red group of butterflies had over the other colors. (they blended in with the environment)

Write Camouflage on the board

Lead a discussion about the benefits of camouflage and ask students what animals they know that can camouflage.

Show a video or read a book about animals that can camouflage.

- BBC Earth Unplugged; Top 10 Animal Camouflage

Independent Practice

- If materials are available, allow students to research an animal that uses camouflage as a defense. This could be a great activity during computer lab if available.
- Tell students to draw a picture of an animal hiding in its environment. For example: they can draw a green frog in a tree or a snowy owl or polar bear in the arctic.
- Have students write a summary of the animal that they drew. For example: The snowy owl is cool for many reasons. It lives in the snow and is white. Its white color helps the snowy owl hide from its predators and stay camouflaged. As you can see, the snow owl
is a master of disguise!

Closing
Students can show their pictures and read their summary to their partners and then the teacher can choose students to read the summary and show their animal to the class.

Assessment & Evaluation
Students will write a summary and draw a picture about an animal that uses camouflage as a defense mechanism.

Modification & Differentiation
If teacher notices that some students need extra attention, he/she can conduct small group instruction. Students can ask teacher question in order to help clear up misconception.

Related Lesson Plans

Earth Window Art
This lesson will allow students to create a replica of the Earth that can also be used as decoration.

Dance Your Heart Out
This activity will allow students to demonstrate choreography skills, dance skills, and creativity in small groups.

Christmas Around the World Part 2
This lesson combines Music and Social Studies. Students will listen to and learn Christmas songs from around the world and analyze.

Ozone Layer
Students will think about how people affect the environment and what they can do to help it and prevent further damage.