CAMOUFLAGE CRITTERS

SUBJECT:ScienceDURATION:1 hour (each activity)LOCATION:Classroom and Outdoors

OBJECTIVES:

To teach students about **camouflage** and how it can be useful in protecting creatures from **predators**.

MATERIALS:

sticks and bark leaves and grass feathers and rocks clay animal list

METHOD:

Discuss with the students the definition of camouflage. Explain how coloration and behavior can combine to make a prey animal almost invisible to predators. Discover what camouflaging animals live in your watershed. Students will create a camouflage critter from natural materials.

BACKGROUND:

Camouflage is both an external appearance and a behavior-pattern that helps an animal become indistinguishable from its surroundings. An animal's coloration, or a particular body part, allows it to blend in with its **environment**. Behavior assists in the animal's ploy. It may freeze, twist a part of its body in a particular way, or flatten out to avoid detection. Finding an animal that is trying to be "invisible" is quite an accomplishment. Many animals use camouflage as a defensive action against predators, and some predators use it to remain unseen by their prey. A common lizard, the green anole (sometimes incorrectly called a chameleon) is a master at blending in with its surroundings. It changes its color to match the environment it is in - brown or green. Anoles accomplish this with migrating pigment cells.

A bittern (a bird similar to a heron) is not only colored like its marsh **habitat**; it also sticks its head and its long pointed bill straight up in the air when disturbed, making it appear like a blade of grass. This trick must work very well, as bitterns are one of the hardest type of birds to see. Ghost crabs are so called because they blend in so well with their white, sandy surroundings that when they are seen, they look like little ghosts running to and fro in the night. They are perfectly colored to match the sand in which they live. The mullet, like many other fish, uses the bi-color trick. Mullet are darkly colored on top, so when seen from above, they blend into the darkness of the water, and when seen from below, their light undersides are indistinguishable from the sky.

SUGGESTED PROCEDURE:

Discuss with the students what camouflage means. Ask them to describe a good example of camouflage. Explain that camouflage is not just coloration, but behavior also. If a cryptically colored (camouflaged) animal moves around, it will probably be detected. Usually animals freeze when they are trying to remain hidden. Some animals even have parts of their bodies designed to help camouflage them. The great horned owl is an excellent example. A researcher wanted to find out if the "horns" on the owl were used for hearing and in order to study this, clipped the horns off a few great horned owls. The results of the study were that the horns did not improve hearing, but that they were most likely for camouflage. The irregular horns on the top of great horned owl heads help to make the birds look like broken off branches. This is very useful during the daytime when the owls roost in trees. With the additional coloration of brown earth tones, the owls just seem like part of the woodwork.

Some animals change color at will. The green anole may be green or brown depending upon its current location. Some fish will have spots or stripes one minute, and none the next. Certain creatures even have "eye" spots on their bodies so they appear to be looking in one direction, when in reality, they are facing in another. Prey animals are not the only ones trying to remain undetected. The more a **predator** blends into its environment, the better its chances are of catching a meal. The alligator is a great imitator of part of its environment, the floating log. Its coloration, rough skin, and ability to float motionlessly has probably been the undoing of many unsuspecting animals.

ACTIVITY:

Using the animal list for your watershed identify the kinds of animals that live in your watershed that might exhibit camouflage characteristics. Discuss the kinds of animals and the ways in which they might camouflage themselves around your **watershed** area. Then, using natural elements found outside, such as leaves, grass, sticks, stones, and feathers, have the students create critters that will blend in around the school yard. Clay can be used for holding the natural objects together. Once the students have created their critters, bring the students outside and give them a few minutes to hide their critters (not bury them) where they will be visible from at least one side. Once the class has hidden all the creatures, let the students try to find them. Then the owners can collect and identify their creatures. Were they all found?

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