



MINNESOTA ZOO™
Changing how you see the world

Exploring Animal Camouflage

Grades 1-3

Pre-visit Activity

MN Graduation

Standards supported:

Grade K Strand 1.B

The student will raise questions about the natural world.

Grade 1 Strand 1.B

The student will raise questions about the natural world, make careful observations and seek answers.

Grade 2 Strand IV.C

The student will understand that organisms live in different environments.

Vocabulary:

Adaptation: A

characteristic of a living thing that makes it better suited to survive in a particular environment.

Camouflage: A way of hiding things by making them blend in with their surroundings.

Introduction:

Animals and people hide things for various reasons. Animals in nature hide their young to protect them from predators. Pirates hide stolen treasure to protect it from being stolen yet again. One of the most effective ways to hide something is by camouflaging it. In this project, you will explore how to use camouflage while making art.

Camouflage is the "art of concealment." It involves disguising an object, in plain sight, in order to hide it from something or someone. We generally think of camouflage as being used during war. Soldiers often wear special camouflage clothing and smear mud on their faces at night to become less visible. But, camouflage exists in many other forms in the natural world. A chameleon, for instance, changes color to blend in with its environment. A white polar bear is hard to see on ice as is a striped zebra in the African bush.

Animals basically use one of two methods to conceal themselves in nature: general resemblance and special resemblance. With general resemblance, animals use color to blend in with their habitat so that they're almost invisible. Besides chameleons, other animals that use color to match their surroundings include hares, tree frogs, flounder fish, grasshoppers, and lizards.

With special resemblance, animals use a combination of color, shape and behavior to help them appear like something in their habitat. They are simply mistaken for something else. The walking stick is a great example. This insect becomes almost invisible due to the shape of its body, its coloration and its slow movement. It looks just like a twig on a bush or tree.

Some animals have special markings that help to disguise their shapes. The zebra, for instance, has markings that run off its edges into the background. This feature allows the zebra to fade into the background so successfully it's difficult to see its overall shape. Just imagine how confusing a herd of zebras must be to a predator.

Other animals that use special resemblance to conceal themselves include giraffes, leopards, praying mantis, snakes, butterflies and moths, caterpillars, and spiders.

Physical Adaptation:

A physical characteristic that helps the animal better suited to survive in a particular environment. An example would be the blubber in a whale, keeping it warm and storing energy.

Behavioral Adaptation:

The way an animal behaves that makes it better suited to survive in a particular environment. For example, some instincts are behavioral adaptations.

Links:

Camouflage Field Book

<http://www.harcourtschool.com/activity/camouflage/camouflage.html>

Fish Camouflage Game

http://www.eoascientific.com/campus/ocean/multimedia/animal_adaptations/view_interactive

Camouflage Game

http://www.abc.net.au/beasts/pla_yground/camouflage.htm

Types of Camouflage Coloration Game

<http://www.pbs.org/wgbh/nova/leopards/seeinggame.html>

Minnesota Zoo Website

www.mnzo.org

Objectives:

At the end of this lesson, students will:

1. Analyze how physical and behavioral adaptations help organisms survive.
2. Define physical and behavioral adaptations as well as camouflage.
3. Observe and identify specific adaptations relating to camouflage.

Procedure:

1. Gather the following materials: assortment of construction paper; old science or nature magazines with pictures of animals, insects or reptiles; (or animal pictures from www.mnzo.org/education/trc/media_resources.asp) scissors; an assortment of textures cut from magazine illustrations; glue sticks; and colored markers.
2. Go through old science or nature magazines in search of cool pictures of animals, insects or reptiles. Choose one of the pictures and carefully cut away the background so that only the animal remains.
3. Next, glue the picture on a similar color of construction paper. Decide whether you will use general resemblance or special resemblance to camouflage your animal.
4. Then create an environment that your animal will feel safe to be in. You can use colored markers, colored construction paper and/or textures cut from magazine illustrations to create your animal's habitat.
5. When your picture is finished, show it to a family member, classmate or friend to see if they can easily find the animal in your picture.
6. Extension: Glue pictures onto a shoebox and make a diorama habitat for the camouflaged creature.