



## **Animal Coats and Colors**

*for students in 1st grade*

**Animal Coats and Colors** is a thematic program that begins with a short PowerPoint presentation in which students learn the many ways animals' coats help them survive in their environment -- providing warmth, protection, camouflage, attraction, warning, etc.

This is followed by hands-on interaction with live small animals and touchable biofacts, such as pelts, snake sheds, and feathers. Students are encouraged to gather information about the animals and determine the ways in which each animal is "dressed" for survival.

These activities challenge students' observation skills, verbal expression, and ability to make comparisons.

This 45-minute program can be presented at the Zoo or in the school classroom, but **NOT in the school cafeteria** because of the live animals. Since we are showing slides, please try to schedule school programs in a room that can be darkened.

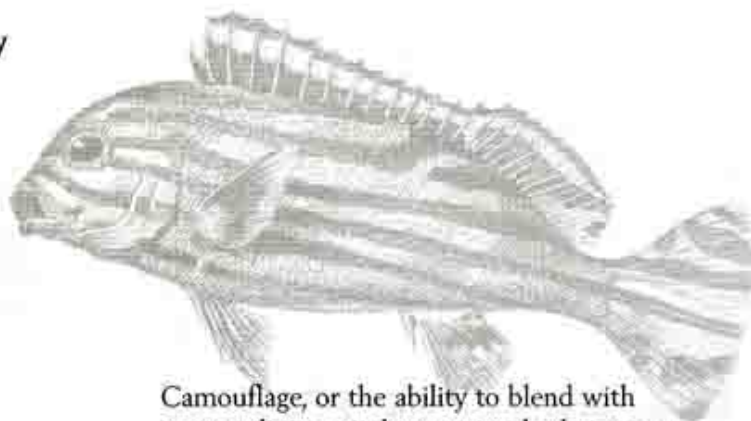
**"Animal Coats and Colors" is aligned to 1st grade Life Sciences Standard 2.**  
*2. An organism is a living thing that has physical characteristics that help it survive.*

**To schedule this program,  
or for more information,  
call 561-1452, ext. 125.**

## introduced in *Animal Coats and Colors*

Amphibian:	An animal that can live on both land and water, such as a frog or a salamander.
Attract:	To cause to draw near.
Bird:	A feathered animal with two wings and two legs that lays eggs.
Camouflage:	To hide and blend in with the background in color, shape, or size.
Climate:	The usual weather in a place.
Carnivore:	An animal that eats mainly meat..
Down:	Soft, fluffy feathers next to the skin that help keep birds warm in winter.
Environment:	All the things that influence a plant or animal's life; the natural world of the land, sea, and air.
Fur:	The hairy coat of a mammal, especially when fine, soft, and thick.
Habitat:	The place where a plant or animal normally lives.
Herbivore:	An animal that eats mainly plants (seeds, grass, leaves, fruit, etc).
Hide:	To keep out of sight.
Imitate:	To copy.
Mammal:	An animal with hair or fur that gives birth to live young (usually) and feeds the young with milk.
Predator:	An animal that kills and eats other animals.
Protect:	To keep from getting hurt.
Prey:	An animal that is killed and eaten by another animal.
Quill:	Long, hollow middle part of a bird's feather; sharp stiff hair of a porcupine.
Reptile:	A snake, lizard, turtle, or crocodile. A cold-blooded animal that has scales.
Scare:	To frighten a person or animal.
Signal:	To let another animal know something, as in "signaling danger."
Warm:	Having or giving heat.

# Color Crazy



## Objective

Students will recognize and generalize that wildlife exists in a variety of colors.

## Method

Students create colorful representations of wild animals.

## Materials

Pictures of brightly colored animals such as fish found living around coral reefs, tropical birds and insects; crayons; paint; chalk; construction paper; scissors; glue; OPTIONAL: other brightly-colored materials, like artificial feathers, tissue paper, acorn shells, uncooked pasta noodles

## Background

Animals use coloring and markings as survival tools. For example, animals use color for their protection and as a way to attract mates. The colors that humans see are not always the same colors that all animals see. An animal's bright colors may not be visible to its primary predators.

**Grade Level:** K-4

**Subject Areas:** Science, Language Arts, Expressive Arts, Environmental Education

**Duration:** one 45-minute session

**Group Size:** any

**Setting:** indoors

**Conceptual Framework Topic Reference:** WPIA2

**Key Terms:** color, wildlife, camouflage, mimicry

**Appendices:** Local Resources, Early Childhood

Camouflage, or the ability to blend with surroundings, can determine whether a prey species, like a rabbit, remains hidden from a predator or is easily identified, killed and eaten. Predators such as leopards and trout have camouflaged bodies so that their prey will not see them. Some animals go through seasonal color changes to remain camouflaged. For example, ptarmigans are ground-dwelling birds that live in arctic and alpine regions of the Northern Hemisphere. In winter, ptarmigans are white and blend with the color of snow. In summer, they turn mottled brown and resemble the color of the alpine forest in summer.

Many animals are brightly colored. The eastern newt in its land-dwelling juvenile, or eft, stage is a bright red salamander. The red color warns predators that the newt's skin contains a compound that can be toxic or irritating to the predator. A predator that eats a newt learns to avoid newts in the future. Bright colors or other markings also may serve as a defense. Some animals use color to appear to be something that they are not. Polyphemus moths have giant eye spots that create the impression that the animal is larger than it really is. Color also plays a role in animal mating rituals. The brightly colored male scarlet tanager and peacock both use color to attract mates.

Wildlife exists in a wide variety of colors that are linked to their survival.

## Procedure

1. Open the discussion by asking students to name and describe real, brightly colored animals. Show students photographs of a variety of brightly colored animals. Discuss how the animals' colors and markings might help them survive.



2. Ask the students to use the brightly-colored crayons, paint, chalk, construction paper, scissors, glue and other materials to draw, paint or construct a colorful creature. This creature could be a real wild animal. The students can make birds, reptiles, amphibians, insects, fish and mammals—whatever real wild animal they would like. Have the students describe how the coloring on the animal would help it to survive.
3. Make a "Colorful Wildlife Gallery." Post the animal creations in the classroom, nature center or other area in the building.
4. Develop a vocabulary list based on the students' descriptions of the animals.
5. Ask the students what they have learned about wild animals. Encourage the generalization that wild animals occur in a wide variety of colors and that animals' colors and markings help them survive. **OPTIONAL:** Bring in reference books on wildlife and allow the students to find real animals similar to those they created.

## Extensions

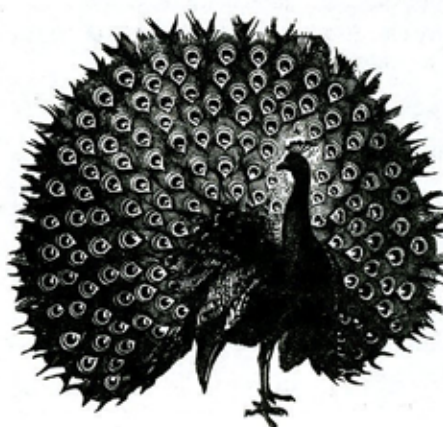
1. Make a "Museum of Color" by matching the students' invented animals with pictures of real animals. Find the primary colors of red, yellow and blue. Look for "rainbow" animals that have three or more distinct colors on their bodies.
2. Make a "Colors from Nature" exhibit and include colors from plants, rocks and soil—as well as wildlife.
3. Put the pictures of animals with pictures of their natural surroundings. Look for animals that blend in and those that stand out.

## Aquatic Extensions

1. Make a colorful, wild, aquatic animal.
2. A coral reef is one of the most colorful places in the world. Find pictures of reef fish or other reef animals. A tropical fish tank in a pet store or aquarium also would show the diversity of colors found in coral reef animals. Pick a picture of a colorful animal that lives in a coral reef. Think of at least one way its color might help the animal survive in its environment. Using brightly colored crayons or other art materials, create a colorful reef animal and draw a picture of it in its habitat.
3. Research light extinction in water. Find out, for example, why bright red fish are camouflaged. Then design a fish based on the depth of its aquatic habitat. View the fish through appropriately colored cellophane or plastic to simulate the effect of its camouflage.

## Evaluation

1. Identify a wild animal that has red or red markings on its body. Identify two wild animals that have brown or brown markings on their bodies. Identify one animal that has yellow or yellow markings; one that has blue or blue markings; and two that have green or green markings on their bodies.
2. Create a model or picture of a colorful butterfly or moth and place it in the room. Explain how the colors will help it survive. Explain where in the room its chances for survival probably would be best.



# Post Zoo-Visit

## Animal Coats and Colors

(created by Laura Adamson and Patti Gonzales, Teachers)

### Objective

Students will demonstrate and write about how animals use their coats and colors to attract attention/warn and to camouflage themselves.

### Content Area

Science: Animals/Writing/Art/Math

### Standards

Science

Language Arts

### Materials

Construction paper scraps, 9"x12" background piece of construction paper folded in half, handwriting paper, glue.

### Activity 1:

1. After the Zoo visit, hold a brainstorming session and make a list of animals that use their coats and colors (a) to attract attention or warn, and (b) to hide or camouflage themselves.
2. Give students the background piece of construction paper and have them label one side "Attract/Warn" and the other side "Hide."
3. Have students choose one animal from each category and use construction paper scraps to construct that animal. They should glue the animal on the corresponding side and then build a background habitat with construction paper scraps.
4. After the art is completed, students should explain in writing how the coats and colors allow the animals to attract attention/warn or to hide themselves. Use a paragraph format if students are able.

### Activity 2:

Students brainstorm a list of animals seen at the zoo and the functions of their coats/colors (Warm, fly, protect, hide, scare, attract, imitate, signal). Make a bar graph or pictograph in pairs or as a class.

## **Follow-up Activity for School-Based Program**

### **1. Create a Diorama.**

Have students create a diorama with an animal and its habitat that shows how the animal uses camouflage.

### **2. Create a Poster and Graph**

Students work with a partner. Each pair creates a poster to present to the class. Have students bring in magazine pictures of a variety of animals. Then have them sort some of the pictures into the eight Coats/Colors categories introduced in the Zoo presentation (Warm, fly, protect, hide, scare, attract, imitate, signal). Discuss how some coats/colors have multiple functions. Make a bar graph or pictograph.

### **3. Writing Assignment.**

Write a class/individual paragraph about the functions of animal coats/colors.