

Colorful Confusion

Grade Levels: 2-5

Nutshell

Students will learn how coloration helps to hide an animal or draw attention to its role in an animal community. Using model animals and an outdoor area with various habitats, the students will learn which animals are best camouflaged for survival in specific habitats. The concepts of warning, disruptive, advertising and false eye spot coloration will be introduced to older students.

Objectives

Upon completion of this lesson, students will be able to:

- Suggest possible habitats in which a given animal might be able to use its coloration to increase its chances of survival
- Identify and explain a relationship between “camouflage”, “adaptation”, and “survival.”
- Relate how changes in an animal’s environment may affect its chances for survival and hypothesize how a given animal might respond to specific environmental changes (move on, adapt, or die)

Colorful Confusion Pre-visit Activities

The following materials are aids to help prepare your students for their visit to the Central Wisconsin Environmental Station. The vocabulary list contains terms and concepts your students will encounter in their visit. Please modify the definitions as needed. The activities listed below are merely options – it is not necessary to do them all or to follow any particular order. Keep in mind that your students' learning experiences at CWES will be enhanced if they are familiar with these concepts and terms prior to the on-site activities.

Vocabulary

- Adaptation: something an animal has or does that helps it survive in its environment.
Camouflage: coloration or color patterns that help an animal blend into its environment
Habitat: place where a living thing makes its home
Niche: role a living thing has in its habitat. The “job” a living thing has.

Activity #1

Obtain several large sheets of newsprint. Have the students work in groups to create a mural depicting a habitat (i.e. forest, marsh edge, desert) on the newsprint. Tell them to use crayons and markers to draw their scene but not to include any animals in their creations. When the murals are complete, post them on the walls around the room. Ask the students to go through magazines and bring in pictures of five animals that would be camouflaged in one of the habitats drawn. They could bring the pictures in from home, or magazines could be provided at school. When each student finds five animals, have them share their pictures with the class, explain which habitat each animal would be best camouflaged in, and attach the pictures to the correct mural. When two habitat choices are possible, have the student examine other adaptations of the animal for clues as to where it might belong.

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Activity #2

Challenge the students to develop a costume that “sends” one of the following animal kingdom messages to the other animals that see it.

- Get away from me!
- You can't see me.
- Hello! I'd like to be friends.
- I'm a lot bigger animal than you might think.
- If you come closer, you'll be sorry!

Have the students bring the items necessary for their design from home on a given day. Then have the class guess which message is displayed through the costume. Relate these messages to real life examples of animals and their coloration.

Activity #3

Show the students pictures containing examples of camouflage in nature> (Animal picture encyclopedias and *Audubon* or *National Wildlife* magazines are excellent resources.) Ask the students if they have any trouble finding the animal. Why? Introduce the term camouflage. Have the students give examples they can think of which illustrate this concept (i.e. hunting clothes, military equipment, etc.) Why are animals camouflaged? Introduce the term adaptation. Explain that camouflage is an adaptation that helps animals survive in their environment. Ask the students if they can think of any other adaptations animals may have.

Colorful Confusion Post-visit Activities

A visit to the Central Wisconsin Environmental Station can be a school-year highlight for both students and their educators. We feel the knowledge and concepts gained during a Station visit apply outside the Station as well. The following activities will allow students to expand their knowledge and help them incorporate those lessons into their everyday lives. Feel free to pick from and modify the activities as best suits your group.

Vocabulary

- Endangered species: certain kinds of plants or animals that are under the threat of being eliminated from the earth
- Extinct: plant or animal species that no longer has any living members on the earth
- Habitat: the environment in which a plant or animal lives and in which its needs for life are met
- Species: one unique kind of plant or animal

Activity #1

Ask the students to draw a picture that has 5 things hidden in it. They do not have to be animals, but can be. When they are finished have the students trade with one another and see if they can find the hidden objects. Relate this activity to the concepts of false eye spot coloration, counter shading, etc.

Activity #2

Divide the class into groups of 3 or 4 students. Have each group select on Wisconsin endangered species. (Make sure the groups do not duplicate each other.) Using the resources provided, the groups should determine the situation of their animal in preparation for a skit to be presented in class. The skit will involve one member of each group representing their animal going to “Animal Heaven” or “That Great Habitat in the Sky.” There, that animal will relate the information they’ve gathered to the other formally endangered, now extinct, animals. The information should answer the following questions:

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- What was the situation that led to the animal becoming endangered or extinct? What happened to it?
- What could have been done to save the animal? What would this have meant for the environment? For humans?

They could also plan/make a costume for the person from their group to use. Allow sufficient time to plan their animals' part. Have the groups present their skits, but do not allow the animals to reveal their identity. Rather, have the class attempt to guess after each animal's presentation. When the skit is completed, emphasize again the reasons or causes leading to endangered species.

Activity #3

Have each student choose an endangered species to study. Assign the students the task of gathering information about their animals' life history, especially habitat requirements and behaviors. When the information is known, have the students draw a picture of their animal in its preferred habitat or in scenes which show why their animal is endangered. Also, have the students write want ads which call for what their animal needs in its habitat. For example:

WANTED – A PINE TREE APARTMENT!

Well-mannered Kirtland Warbler needs a pine tree in which to nest. Not just any pine tree will do. Must be a jack pine. Jack pine 5-17 feet tall is preferred. Location is very important. Tree must be located in North Central Michigan. Willing to fly in to visit potential apartment in early spring.

The want ads should accompany the drawings and be displayed around the room when completed.

Colorful Confusion Resources

Teacher Resources

Fogden, Michael and Patricia. 1974. *Animals and their colors: Camouflage, Warning Coloration, Courtship, and territorial Display*. New York: Crown Publishers, Inc.

Fox, Dennis L. 1979. *Biochromy, Natural Coloration of Living Things*. Berkeley, CA: University of California Press. 248 pp.

McClung, Robert M. 1976. *Lost Wild Worlds*. New York: Morrow Publishing. 288pp.

Wilks, Mike. 1993. *The Ultimate Noah's Ark*. New York: Henry Hold and company.

Endangered Species information is available from:

Bureau of Endangered Resources
Department of Natural resources: Box 7921
Madison, WI 53707
(608) 266-2172

The artwork of Bev Doolittle is an excellent resource for “hidden” pictures.

Youth Literature

Arnotsky, Jim. 1995. *I See Animals Hiding*. New York: Scholastic, Inc.

Carthy, J.D. 1974. *Animal Camouflage*. New York: McGraw Hill. 32 pp.

Duvoisin, Roger. 1979. *Snowy and Woody*. New York: Knopf. 32 pp.

McDonnell, Janet. 1989. *Animal Camouflage*. Elgin, IL: Child's World. 46 pp.

Penny, Malcolm. 1988. *Animal Defenses*. New York: The Bookwright Press. (For grades 4-6)