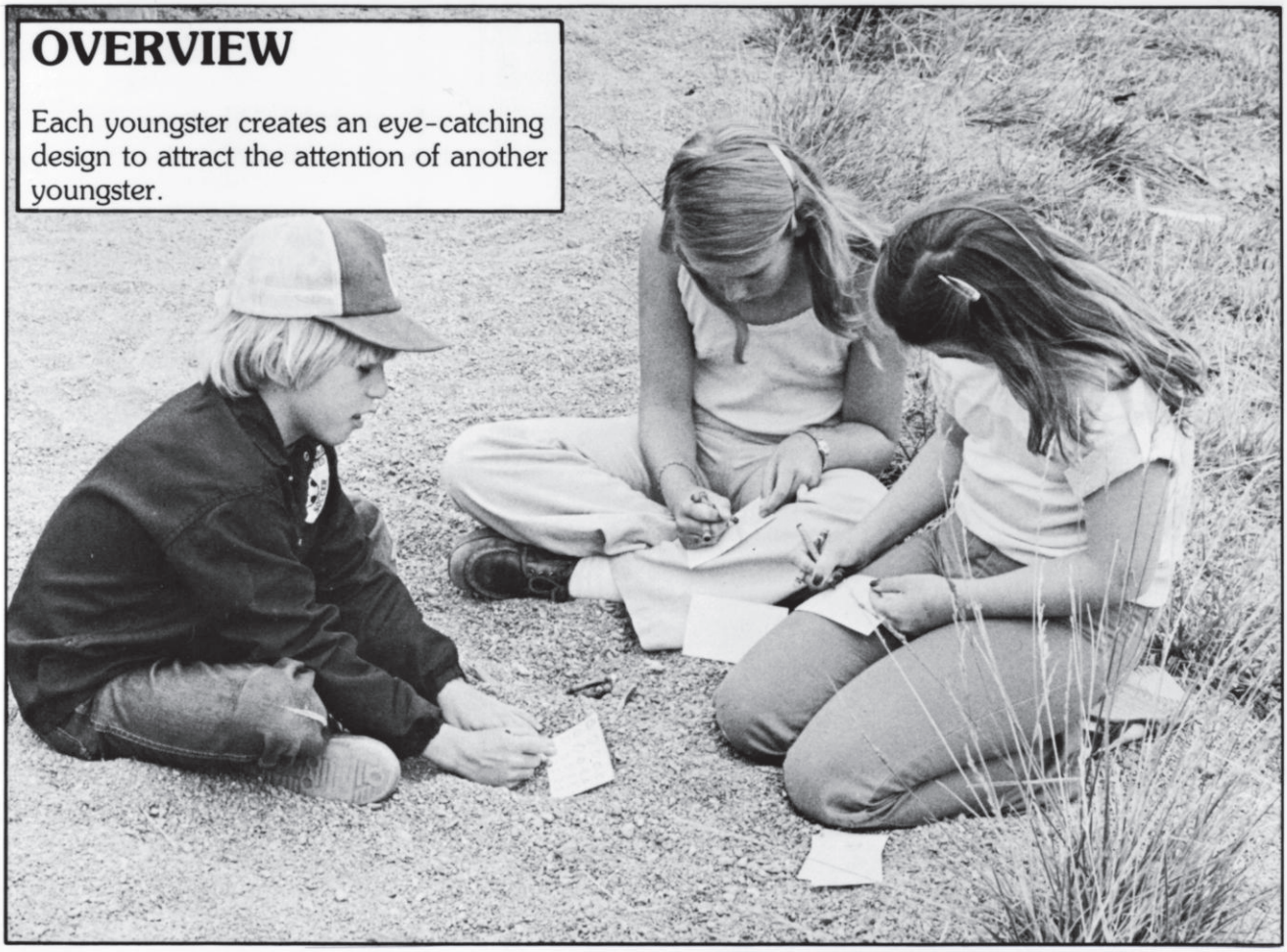
ATTENTION!

BIO KEY

Game/Simulation
Arts and Crafts
Adaptation

OVERVIEW

Each youngster creates an eye-catching design to attract the attention of another youngster.



BACKGROUND

Plants that depend on insects or other animals for pollination or seed dispersal have features that attract the attention of animals. Such features include brightly colored flowers or fruits; and sweet, savory, or minty fragrances that help to attract bees, butterflies, moths, flies, ants, and other pollinators.

Animals also have features that attract attention. The bright colors or pattern of an animal may help to attract a mate, startle or distract a predator, or serve as a warning. The male peacock uses his colorful feathers to attract the attention of the female. Certain fish and insects have large spots that look like eyes and discourage would-be predators from attacking. The bold orange, white, and black pattern of the Monarch butterfly; the black and white stripes or spots on skunks; the bright yellow and black bands on bees and hornets; and the red or orange bellies of certain salamanders and newts serve as a warning that these animals are foul-tasting or dangerous. After one or two unpleasant experiences with these brightly colored animals, potential predators learn to recognize and avoid them in the future.

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Some animals, such as the Viceroy butterfly, have evolved false warning coloration that protects them from being eaten. Birds avoid the Viceroy because its coloration is similar to that of the Monarch butterfly, which is foul-tasting.

Colors and other attention-catching features of organisms are examples of adaptations. An ***adaptation*** is a feature of an organism that helps it to survive and reproduce.

CHALLENGE: CREATE A DESIGN THAT WILL ATTRACT ATTENTION IN A PARTICULAR HABITAT.

MONARCH BUTTERFLY ON THISTLE

MATERIALS

For each youngster:
1 copy of an Action Card
1 pencil*
1 index card* or other small piece of paper

For each team:
crayons* or felt-tipped pens* (5 to 8 different colors)

For the group:
8 strips of flagging* (for marking boundaries)
1 sheet of Action Cards*

Optional: Rather than using index cards, you may have the youngsters construct make-believe animals like those used in the activity *Invent an Animal*. See the "Materials" and "Preparation" sections of that activity. Note: Remember that the idea in *Attention!* is to make animals that *attract* attention, rather than camouflaging them to blend into their surroundings (the goal of *Invent an Animal*).

*Available from Delta Education.

PREPARATION

Group Size. This activity is suitable for any size group.

Time. Plan on forty to fifty minutes for this activity.

Site. Choose a site that has a variety of habitats (grassy, shrubby, leafy, rocky, etc.). Flag two areas that are situated so that a team in one area cannot see the team in the other area. Each area should measure about 100 to 150 square meters.

Materials

1. Provide a set of five to eight colored crayons or felt-tipped pens for every four youngsters. Include mostly bright colors such as reds, oranges, yellows, and light blues and greens.

2. Make a copy of the Action Card for each youngster.

ACTION

1. Begin the activity by mentioning that some organisms are easy to see because they are brightly colored. Ask the youngsters to describe a few brightly colored plants or animals that have attracted their attention. Use examples from the "Background" section to help explain how attractive or bright coloration helps some organisms to survive. Tell the

youngsters that they are going to make colorful designs to attract the attention of another member of the group.

2. Divide the group into two equal teams and point out each team's activity area. (**Note:** if you have an odd number of students, you should become a member of the "short" team.)

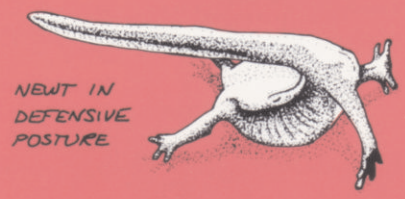
3. Give each student an Action Card and a pencil. Show the group the different colors they have to choose from, and describe the habitats (the places where organisms live) that are present in the site. Ask the youngsters to fill out their cards. Collect the cards, keeping the cards from each team separate.

4. Give each youngster in one team an Action Card filled out by a youngster in the other team. Ask the youngsters not to tell whose cards they have. Explain that each youngster will use the colors, pattern, and habitat listed on the Action Card to make a design that is as eye-catching as possible. The design should attract the attention of the person who filled out the card.

STRIPED SKUNK

5. Give each team coloring materials and index cards, and send one team to each site to make their designs. (If your youngsters are making the optional make-believe organisms, make those materials available, and ask the kids to make the designs on the organisms they construct.) Circulate among the youngsters as they work.

6. Allow fifteen to twenty minutes for the teams to make their designs and place them in the habitats as indictated on their Action Cards. The designs should be placed inside the activity area so that they are easy to spot. Have each design maker sign the back of his design and keep the Action Card.

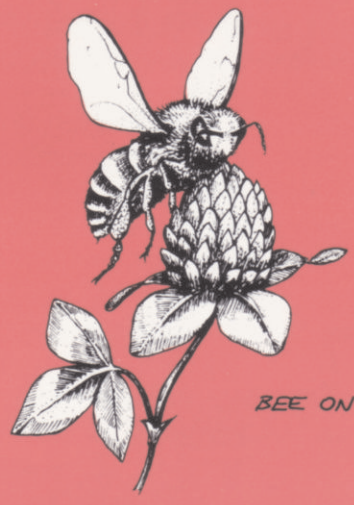


NEWT IN DEFENSIVE POSTURE

7. Call the group together. Announce that the teams are now going to switch sites. Each youngster will search for the design that was created to attract his attention. Suggest that the youngsters look at all the designs in the site before picking up the design made for them.

8. Send the teams off to find their designs.

9. After the kids have selected their designs, call everyone together. Let the design-makers verify that their designs were picked up by the right youngsters.



BEE ON CLOVER

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BRIGHT IDEAS

1. Ask the youngsters which designs were the most effective attention getters. What made the designs so effective?

2. Use bright flowers and bees or hornets as examples to introduce the concepts of ***attractive coloration*** and ***warning coloration.*** Explain that colors and other attention-catching features of organisms are ***adaptations,*** which are features that help organisms to survive and reproduce.

3. Ask the youngsters:

- How would having the shape and colors of a bee or hornet help a fly to survive?
- Describe plants or animals that have features other than bright colors to attract or warn away animals. (Mention some of the examples from the "Background" section.)
- What kinds of sensory displays do humans use to attract attention to themselves?

BRANCHING OUT

Ask the youngsters to spend a few minutes looking for plants and animals that attract attention by smell, sound, or sight. Which organisms caught the youngsters' attention? Do the attention-catching features warn or attract?

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