

Colors and Patterns

This packet is to help introduce your students to terms and ideas that will be discussed during your visit to the Peoria Zoo. It is designed to enhance your program experience, either through class prep or follow-up.

By using the vocabulary, activities, and ideas it will help reinforce the program and meet the State Standards listed on page 2.

Terms to introduce to students:

- bio fact-an object in nature including (but not limited to) feathers, eggs, teeth, bones, etc
- Camouflage-hiding by protective coloring, pretending to be part of the natural surroundings
- Counter shading-form of camouflage where there is darker coloring located on the top and a lighter shade on the bottom, making it difficult for it to be seen from either above or below.
- Mimicry-a type of camouflage where an animal looks and acts like another species of animal

Ideas covered in program:

- The idea of camouflage; help students identify some animals that use camouflage (snakes, sugar gliders, owls, etc.)
- Why it is beneficial for animals to use camouflage (hunting, protection)
- Introduce the idea of warning colors and colors to attract mates
- Introduce counter shading, mimicry, and imitation
- How/why camouflage only works for animals when they stay in certain places
- How each animal introduced used their colors and patterns (depends on the animals we bring)
- Why some animals use colors to warn others to leave them alone (poisonous, taste bad, territorial, etc.) like beaded lizards warning they are venomous or monarch butterflies warning they taste bad
- How/why some animals use colors and patterns to attract mates (most birds you see this, students can see male cardinals as a good example in their own backyard)

Activities for Students:

WRITE ABOUT IT

- After the program, have students write about what they saw, which animals they liked best/least and what colors all of the animals were.

MAKE YOUR OWN ANIMAL

- Gather pictures of fish from different habitats (brightly colored from coral reefs-students will probably recognize these from Finding Nemo to fish found in rivers and lakes). Discuss how fish look different depending on where they are living, colors help them survive.

Now have the students create their own fish, using whatever patterns/colors they would like, as long as the fish blends in someplace in the classroom. Let the students display their "fish" in the part of the room they camouflage with.

CAMOUFLAGE YOURSELF

- Have students come to school camouflaged (to match the classroom or schoolyard). This can mean common colors/patterns found in the classroom to having them create their own outfit with grass/leaves to camouflage outside. Have a team of judges decide who is the hardest to find. Then discuss how easy/difficult it was to camouflage

WARNING

- Talk about why animals might use warning colors instead of trying to camouflage. Have students watch for warning colors they might find in our world for a week (stop signs-red, flashing yellow lights in school zones). Have them write down all of the things that might be warning colors.

COLOR IT

- Using coloring sheets, let students color their animals whatever color they would like. Then have each student explain why they colored them the way they did (if it was to camouflage where they live, warning of poison, to attract a mate, etc)

CAMOUFLAGE GAME

- You will need: 4-5 different colors of yarn, some that will camouflage well and some that stand out. Cut the yarn into about 3 inch pieces. Find an area, either inside or outside and scatter the pieces of yarn randomly throughout the area chosen (size of the area depends on the size of your class).
Explain to the students how important camouflage is, example: birds will eat the bugs they see first before hunting for them. Now tell the students they are going to pretend to be birds and find the bugs you have spread out in the area (show them the yarn). Give each bird a designated spot that will be their nest, this is where they will return. They will have 10 seconds to collect the bugs, but they can only carry one at a time, making trips back to the nest.
When the 10 seconds is up, which color did the birds get the most of? Why did the students go after the ones they did? You can have them go again until they are all collected (if you miss a few, that's ok, the yarn can be used by real birds in their nests).

State Standards met by:

- LISTENING TO THE PROGRAM

4.A.1a-d; 12.A.1a-b; 12.B.1a-b; 12.C.1b; 13.A.1a

- WRITE ABOUT IT/WARNING

3.A.1; 3.B.1 a-b; 5.A.1a-b; 5.B.1a-b; 5.C.1a-b

- COLOR IT

4.B.1a-b

- CAMOUFLAGE YOURSELF/CAMOUFLAGE GAME

21.A.1a-c

- MAKE YOUR OWN ANIMAL

26.A.1e; 26.B.1d



Leafy Sea Dragon (imitation)



The nonvenomous Sinaloa milk snake (*right*) closely mimics the color pattern of the venomous coral snake (*left*).



Sugar glider (counter shading)