

Colors & Patterns in Nature

Background

All animals have specific colors and patterns that help them survive in their environment. Fish use the color of their scales to become invisible to flying predators by reflecting the sun. Walking sticks mimic the twigs of trees to hide. Even predators like the cheetah have special patterns to help them survive.

Goal

In this lesson students will observe the animals of Safari West and explore how their patterns and colors can provide clues to what type of habitat they live in and how it helps them survive. We will also examine the patterns that predators use to make themselves invisible to their prey.

Before Your Visit

Activity 1: For a fun class project before visiting Safari West, have students make binoculars. This requires two toilet paper rolls, glue, yarn, and pens/crayons. Explain what binoculars are used for and how they help scientists get a closer look at animals. Note to educators: The binoculars help young students focus on individual animals or specific morphological features (as described in the Background above).

Activity 2: You may also want to have students make their own notebooks with four pages of blank white paper so they can draw the various patterns, stripes or spots they see on some of the animals while on safari.

Materials to Bring

Ask your students bring the "binoculars" and notebooks they made in the classroom. If they did not make their own notebook, you may want to provide them with pre-made versions.

At Safari West

Once at Safari West the naturalist will take over instruction of the class. Alert your guide to your students' study focus. Your guide will highlight the following animals:

Antelope (Grant's gazelle, greater kudu, bongo, and addax/scimitar-horned oryx)

Grant's gazelle - This impala-sized antelope is found on the East African plains. It has a tan back and a very white underside.

continued



Colors & Patterns in Nature continued...**At Safari West**
continued

Dark markings include vertical lines on the face, thighs and some have a side stripe. The important thing to note is the pattern of horizontal stripes. This stripe pattern helps the gazelle blend in with the horizon. Generally, horizontal stripes indicate that an animal lives in a grass land habitat.

Greater kudu - This is the second tallest antelope. They live over much of eastern and southern Africa. They have semi-noticeable vertical stripes that help them hide in their preferred woodland, scrub and open forest habitats.

Bongo - This is the biggest, most colorful and social of the forest antelope. They have a reddish brown coat. Older males tend to be more chocolate in color. The bongo has 12-14 striking, cream colored vertical stripes on the torso. The darker hide and noticeable stripes indicate that the bongo lives in dense rainforests, where it is well-hidden by its coat

Addax and scimitar-horned oryx - Both antelope have white or cream-colored coats. The lightness of their coats tells you that they blend into a desert habitat.

Back in the Classroom

Activity 1: After returning to your school, conduct a Playground Safari. The students should try to locate all the hidden animals and insects they can find in the schoolyard and note the patterns or colors that help them hide. Alternately, students can be assigned to conduct their own Backyard Safari at home.

Activity 2: As an art project, ask students to create a habitat (real or make-believe) and then draw an animal (real or make-believe) with special colors or patterns that will help it fit into the habitat they have created

Activity 3: See instructions on the following "How Do I Move?" worksheet.



Worksheet: How do I move?

Color animals that swim, blue; animals that fly, yellow; animals that jump, red; and animals that swing, green.

