

Photo Description



This image shows a snake resting on a piece of dark, weathered wood surrounded by fallen leaves and forest debris. The snake's body is tan and brown, making it very hard to see against the dark bark and leaf litter. The colors of the snake's skin blend in with the colors all around it in nature.

Scientific Phenomena

Anchoring Phenomenon: Camouflage

This image demonstrates camouflage—an animal's ability to blend into its surroundings using colors and patterns that match its environment. The snake in this photo is camouflaged because its tan and brown coloring matches the dead wood, soil, and autumn leaves around it. This happens because animals have evolved these colors and patterns over many generations to help them survive. When a snake blends in with its surroundings, predators have a harder time spotting it, and it can also sneak up on prey more easily. This is a survival adaptation—a body feature that helps an animal stay safe and find food.

Core Science Concepts

- * Animals have different colors and patterns – Just like people wear different colored clothes, animals have different colored skin, fur, or scales. These colors help them fit into their habitats.
- * Colors help animals hide – When an animal's color matches its environment (like a brown snake on brown wood), it becomes hard to see. This helps keep the animal safe from predators and helps it hunt food.
- * Animals adapt to their homes – Over time, animals develop features that help them survive in the places where they live. A forest animal might be brown and green, while a snow animal might be white.
- * Patterns matter too – Spots, stripes, and other patterns can break up an animal's shape, making it even harder to notice against a busy background like leaves and branches.

Pedagogical Tip:

For Kindergarteners, avoid using the word "predator" in complex sentences. Instead, use simpler language: "The snake hides so bigger animals don't see it" or "The snake is hiding so it can hunt for food." Use direct comparisons to their own experiences: "Your brown shirt helps you hide in the dirt, just like this snake hides in the leaves!"

UDL Suggestions:

Multiple Means of Representation: Provide the photo alongside real objects (actual bark, leaves, toy snakes in different colors) so students can physically explore the concept of matching colors. Some learners need to touch and manipulate to understand. Multiple Means of Engagement: Create a hide-and-seek game where students find tan/brown objects hidden in a pile of leaves—this makes the abstract concept concrete and playful. Multiple Means of Expression: Allow students to show understanding through drawing, building with blocks, or physically acting out being a hidden animal, not just through talk.

Discussion Questions

1. Why is it hard to see the snake in this picture? (Bloom's: Remember | DOK: 1)
2. How does the snake's color help it stay safe? (Bloom's: Explain | DOK: 2)
3. If we moved this snake to a snowy place, would its brown color still help it hide? Why or why not? (Bloom's: Analyze | DOK: 2)
4. Can you think of other animals that hide using their colors? What colors are they? (Bloom's: Apply | DOK: 2)

Extension Activities

1. Camouflage Hide-and-Seek Game: Hide objects around the classroom that match their backgrounds (brown toys in a brown box, green objects in plants, etc.). Have students find them and discuss why some are easy or hard to spot. Ask: "Why did you miss the green block? Because it matched the plant!"
2. Animal Coloring Craft: Provide pictures of different habitats (forest, snow, sand) and have students color animal cutouts to match each habitat. They can color a bunny white for snow and brown for forest, then practice moving the animals to different environments and discussing if the colors still work as camouflage.
3. Nature Detective Walk: Take a short outdoor walk and have students search for animals or animal signs (feathers, holes, nests) that are camouflaged in their environment. Take photos or make simple sketches. Back in class, discuss: "Why was it hard to find this? What colors did it match?"

NGSS Connections

Grade K Performance Expectation:

K-LS1-1: Use observations to describe patterns of what plants and animals (including humans) need to survive.

Disciplinary Core Ideas:

- K-LS1.A – All organisms have basic needs such as food, water, and appropriate conditions of temperature and light.
- K-LS1.C – Many characteristics of an organism are inherited from parents, but other characteristics are learned or influenced by the environment.

Crosscutting Concepts:

- Patterns – The snake's coloring follows a pattern that matches its environment.
- Structure and Function – The snake's brown and tan colors function to help it hide and survive.

Science Vocabulary

- * Camouflage: When an animal's color or pattern helps it blend in and hide from other animals.
- * Habitat: The place where an animal lives, like a forest, desert, or pond.
- * Adapt: To change or develop a special feature that helps an animal survive in its home.
- * Predator: An animal that hunts and eats other animals.
- * Blend: To mix together so things look like one thing instead of separate things.

External Resources

Children's Books:

- The Mixed-Up Chameleon by Eric Carle – A colorful story about a chameleon that can change its colors and patterns.
- Hide and Seek by Debbie Blecha – A simple board book showing animals hiding in their habitats.
- Who Hides? by Yoshi – A peek-a-boo book featuring camouflaged animals children can discover.

YouTube Videos:

- "Animal Camouflage for Kids" by National Geographic Kids – A 4-minute video showing real animals hiding in nature with simple explanations. https://www.youtube.com/results?search_query=animal+camouflage+for+kids+national+geographic
- "Camouflage Chameleon" by StoryBots – An animated song about how animals use camouflage to survive, with engaging visuals for young learners. https://www.youtube.com/results?search_query=camouflage+chameleon+storybots