

## Photo Description



This image shows a snake resting on a dark log surrounded by fallen leaves and twigs. The snake's brown and tan colored body blends in with the wood and leaves around it, making it hard to see at first glance. This is a great example of how some animals look like their surroundings to stay safe.

## Scientific Phenomena

Anchoring Phenomenon: Camouflage (Protective Coloration)

This image demonstrates camouflage—when an animal's colors, patterns, or shape match its environment so predators have difficulty seeing it. Scientifically, this happens through natural selection: animals with colors that blend into their habitat survive longer and have more babies with similar colors. Over many generations, this trait becomes stronger in a population. The snake in this photo has brown and tan coloring that matches the dead wood and leaf litter of the forest floor, making it nearly invisible to hungry birds or other predators searching for a meal.

## Core Science Concepts

- \* Adaptation: Animals have special features (like color or shape) that help them survive in their environment.
- \* Camouflage: When an animal's appearance helps it blend in with its surroundings so it stays hidden from predators or prey.
- \* Survival: Animals use different strategies—like hiding through camouflage—to stay safe and live longer.
- \* Variation in Nature: Not all animals of the same type look exactly alike; some have colors or patterns that work better in different places.

### Pedagogical Tip:

Start this lesson by showing the image WITHOUT labeling the snake first. Ask students, "Can you find the animal hiding in this picture?" This creates curiosity and engagement before explaining camouflage. Students will be amazed when you reveal where the snake is—this "aha moment" makes the concept stick!

### UDL Suggestions:

Provide multiple means of representation: Use the photo AND a live video clip of a camouflaged animal moving (this helps kinesthetic learners see the difference between the still animal and its background). For students who need support, use a highlighted or circled version of the image showing exactly where the snake is located. For advanced learners, ask them to predict what other animals might need camouflage in a forest.

## Discussion Questions

1. Why do you think this snake's brown color helps it stay safe? (Bloom's: Understand | DOK: 1)

2. If this snake lived in a snowy place instead of the forest, what color would help it hide better? Why? (Bloom's: Analyze | DOK: 2)
3. What other animals might need to blend in with their surroundings? What colors would help them? (Bloom's: Apply | DOK: 2)
4. How would a bright red snake do in this forest? What might happen to it? (Bloom's: Evaluate | DOK: 3)

## Extension Activities

### Activity 1: Camouflage Hunt in the Classroom

Hide colorful paper cutouts of animals around the classroom—some match the background (brown on brown bulletin board) and some don't (bright red on a white wall). Have students find the animals and notice which ones are easier to find.

Discuss: Which colors help animals hide? Which colors make them easy to see?

### Activity 2: Design Your Own Camouflaged Animal

Provide students with images of different habitats (forest floor, sandy desert, snowy field, ocean) and colored markers or paper. Students draw or create an animal that would be camouflaged in that habitat, explaining their color choices. Display their work with labels: "This animal lives in a [habitat] so it is [color] to hide!"

### Activity 3: Camouflage Game (Outdoor or Indoor)

Play a simplified "predator and prey" game where one student is a "predator" hunting for hidden plastic animals (or student volunteers in colored vests) placed around a designated area. Students with matching colors to their background are found last. Afterward, discuss: Did color matter? Why were some animals easier to find?

## NGSS Connections

Performance Expectation:

2-LS4-1: "Make observations of plants and animals to compare diversity of life in different habitats."

Disciplinary Core Ideas:

- 2-LS4.A: Structure and Function — Different plants and animals have different body structures that serve different functions in growth, survival, and reproduction.
- 2-LS4.C: Adaptation — Some behaviors and traits of plants and animals help them survive and reproduce.

Crosscutting Concepts:

- Patterns: Patterns in nature help us understand how organisms interact with their environment.
- Structure and Function: The shape and color of an animal's body is related to how it survives.

## Science Vocabulary

- \* Camouflage: When an animal's color or pattern makes it blend in with its surroundings so it's hard to see.
- \* Adaptation: A special body part or behavior that helps an animal survive in its home.
- \* Predator: An animal that hunts other animals for food.
- \* Habitat: The natural home or environment where an animal lives.
- \* Blend in: To look similar to the things around you so you're hard to notice.
- \* Survival: Staying alive and safe.

## External Resources

### Children's Books:

- The Mixed-Up Chameleon\* by Eric Carle — A fun story about a chameleon that changes colors to match its surroundings.
- Hide and Seek\* by Shelley Rotner and Sheila Kelly — Photographs of real animals camouflaged in nature with a guessing game format.
- Who Hides Here?\* by Margaret Miller — Colorful photos of camouflaged animals in various habitats.

### YouTube Videos:

- \* "Camouflage Animals for Kids" by National Geographic Kids — A 3-minute video showing amazing camouflaged animals in real habitats. <https://www.youtube.com/watch?v=DpJfV1xRpkU>
- \* "How Animals Use Camouflage" by Crash Course Kids — An engaging 4-minute overview of camouflage with clear examples and animation. <https://www.youtube.com/watch?v=cKeUG3NeHSw>