

## Photo Description



This image shows a bright green lizard resting on a tree branch. The lizard has a long tail, bumpy skin covered in tiny scales, and a pointed head with a clear eye visible. You can see the lizard's body blends in with the gray tree bark, which helps it hide from other animals.

## Scientific Phenomena

Anchoring Phenomenon: Animal camouflage (or protective coloration) in action.

**Why This Is Happening:** This lizard's green color helps it blend in with leaves and plants in its environment. Animals develop colors and patterns over many generations that match their surroundings, making it harder for predators to find them. This is a survival strategy called camouflage—the lizard's appearance protects it by helping it "disappear" into nature. The lizard isn't consciously choosing to hide; instead, its green color is a physical adaptation that increases its chances of survival in a forest or woodland habitat.

## Core Science Concepts

- \* **Animal Adaptation:** Animals have special body features (like color, shape, or size) that help them survive in their environment. This lizard's green color is an adaptation.
- \* **Camouflage:** When an animal's color or pattern matches its surroundings, it becomes hard to see. This helps animals hide from predators and sometimes helps them hunt for food.
- \* **Observable Physical Traits:** All animals have features we can see and describe, such as skin texture, color, size, and body shape. These traits can help us identify animals and understand how they live.
- \* **Survival and Environment:** Animals need certain environments to survive. This lizard lives in places with trees and plants because its green color helps it blend in there.

### Pedagogical Tip:

For Second Grade, avoid overcomplicating the "why" of evolution. Instead, use simple cause-and-effect language: "The lizard's green color helps it hide, so predators can't find it as easily." Use the word "adaptation" repeatedly so students build familiarity, but always pair it with a concrete example they can see in the photo.

### UDL Suggestions:

**Representation:** Provide both verbal descriptions AND visual comparisons (e.g., show the lizard photo next to a photo of green leaves side-by-side). Some students may benefit from a simplified illustration highlighting the lizard's key features.

**Action/Expression:** Allow students to demonstrate understanding through drawing, role-play (pretending to be the lizard hiding), or sorting images of animals by camouflage type, rather than relying solely on written or verbal responses.

**Engagement:** Connect the concept to students' lives by asking them to find things in the classroom that are "camouflaged" or blend in with their surroundings (e.g., a green pencil in a green cup).

### Discussion Questions

1. What color is this lizard, and why do you think it is that color? (Bloom's: Analyze | DOK: 2)
2. If this lizard lived in a desert with brown and tan rocks instead of green trees, would its green color still help it hide? Why or why not? (Bloom's: Evaluate | DOK: 3)
3. What animals do you know that have colors or patterns that help them hide? (Bloom's: Remember | DOK: 1)
4. How do you think a green lizard's color helps it stay safe from animals that want to eat it? (Bloom's: Understand | DOK: 2)

### Extension Activities

1. Camouflage Hunt Walk: Take students on a nature walk (or around the classroom/schoolyard) and have them search for animals or objects that blend in with their surroundings. Have them draw or photograph what they find and share with the class. This reinforces the concept that camouflage exists all around us.
2. Color Matching Game: Provide students with colored paper (green, brown, yellow, blue, etc.) and small toy animals or animal pictures. Have them place animals on the paper that matches them best, then on paper that doesn't match. Discuss which placements make the animal "hard to see" and why. This is kinesthetic and builds conceptual understanding.
3. Design Your Own Animal: Give students a choice of three different habitat images (forest, desert, ocean) and have them draw an animal that would be camouflaged in that habitat. Ask them to explain their color and pattern choices. This connects observation to creative thinking and requires them to apply the concept.

### NGSS Connections

Performance Expectation: 2-LS4-1

Make observations of plants and animals to compare diversity of life in different habitats.

Relevant Disciplinary Core Idea:

- 2-LS4.A Different plants and animals live in different habitats based on the characteristics of that habitat and the needs of the organisms.
- 2-LS4.D There are many different kinds of living things in any area, and they exist in different places on land and in water.

Crosscutting Concepts:

- Patterns The green color of the lizard follows a pattern found in nature—matching its environment.
- Structure and Function The lizard's physical structures (color, scales, body shape) help it function in its habitat.

### Science Vocabulary

- \* Adaptation: A special body part or behavior that helps an animal survive and live in its environment.
- \* Camouflage: Colors or patterns on an animal's body that help it blend in and hide from other animals.
- \* Scales: Tiny, overlapping pieces of hard skin that cover a reptile's body and protect it.
- \* Habitat: The place where an animal lives that has everything it needs, like food, water, and shelter.
- \* Predator: An animal that hunts other animals for food.

## External Resources

### Children's Books:

- The Mixed-Up Chameleon by Eric Carle (explores color change and adaptation in an engaging, visual way)
- Hide and Seek by Alyssa Satin Capucilli (about animals using camouflage to survive)
- Lizards by Gail Gibbons (factual, illustrated introduction to lizard traits and habitats)

### YouTube Videos:

- "Animal Camouflage for Kids" by National Geographic Kids — A 4-minute overview of how animals hide in nature with stunning real footage. <https://www.youtube.com/watch?v=v7ScGV5128A>
- "What Is Camouflage?" by Crash Course Kids — A simple, animated explanation of camouflage as an animal adaptation, about 3 minutes long. <https://www.youtube.com/watch?v=MHkbH2x5xQI>

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Teacher's Note: This lesson positions camouflage as an observable, real-world phenomenon that Second Graders can directly experience through nature exploration and hands-on activities. The focus on "seeing" and "comparing" aligns with Second Grade cognitive development and NGSS expectations for this grade level.