

## Photo Description



This image shows a small lizard sitting on a bright green leaf. The lizard has brown and tan coloring on its head, back, and tail, with a white belly and pale legs. You can see the lizard's eye, bumpy skin texture, and long tail clearly in the photo. Lizards are reptiles that live in many different places around the world.

## Scientific Phenomena

Anchoring Phenomenon: Animal Growth and Change (Life Cycle)

This image represents how animals grow and change over time. Lizards, like many reptiles, shed their old skin as they grow bigger—a process called molting or shedding. As a lizard grows, its skin becomes too tight, so the old skin peels away to reveal new, larger skin underneath. This happens several times during a lizard's life. The color and pattern variations visible on this individual lizard (mixing of old and new skin tones) suggest the natural color changes that occur as reptiles mature and grow.

## Core Science Concepts

- \* Living Things Have Life Cycles: All animals, including lizards, are born, grow, change, and eventually grow old. Shedding skin is one way we can observe that animals are growing and changing.
- \* Adaptations Help Animals Survive: Lizards have special features like tough, scaly skin that protects them. Their coloring helps them blend in with plants and rocks so predators cannot easily see them.
- \* Reptiles Are a Group of Animals: Lizards belong to a group called reptiles. Reptiles have dry, scaly skin, lay eggs (usually), and are cold-blooded, meaning their body temperature changes with their environment.
- \* Observable Physical Characteristics: We can describe what we observe about animals using our senses—like the lizard's bumpy skin, color patterns, body shape, and size.

### Pedagogical Tip:

For First Grade, avoid technical jargon like "ecdysis" or "thermoregulation." Instead, use accessible language: "The lizard sheds its skin to grow bigger," and "The lizard's skin color helps it hide." Use repetition and visual aids (pictures, real examples if safe) to reinforce concepts. Allow students to touch safe, non-living reptile items (shed snake skin, smooth rocks) to build sensory understanding.

### UDL Suggestions:

**Multiple Means of Representation:** Provide the lesson in multiple formats—use the image, real photos of molting, video clips, and tactile models. Read vocabulary aloud while showing written words. **Multiple Means of Engagement:** Ask students to predict what happens next in a lizard's life or share if they've seen a lizard. **Multiple Means of Expression:** Allow students to draw, act out, or build with blocks to show how a lizard grows and sheds skin. Pair verbal discussions with drawing activities for students who process information differently.

## Discussion Questions

1. What do you notice about the lizard's skin? (Bloom's: Remember | DOK: 1)
2. Why do you think the lizard has different colors on its body—brown on top and lighter on the bottom? (Bloom's: Infer | DOK: 2)
3. What do you think happens to the lizard's skin as it grows bigger? (Bloom's: Analyze | DOK: 2)
4. How is a lizard different from a bird or a fish? What special things help it survive? (Bloom's: Compare | DOK: 3)

## Extension Activities

### Activity 1: Skin Shedding Simulation

Provide students with old socks or gloves to wear. Explain that the sock is like the lizard's old skin. Have students carefully remove the sock to reveal their hand/foot (the "new skin" underneath). Discuss how the lizard's old skin gets too tight as it grows, just like the sock getting too snug. This hands-on activity helps students understand shedding without needing a real animal.

### Activity 2: Lizard Habitat Sensory Walk

Create a small "lizard habitat" station with safe items: smooth rocks, twigs, leaves, sand in a shallow bin. Let students explore and feel these textures. Explain that lizards like to hide under rocks and among plants. Ask: "Where would you hide if you were a lizard?" Students can arrange items to make a pretend lizard home.

### Activity 3: Color and Camouflage Art

Provide colored paper, markers, and crayons. Students draw a lizard and color it to match a specific background (green leaf, brown branch, gray rock). Discuss how the lizard's coloring helps it blend in so it stays safe. Display drawings around the room and play a "Find the Lizard" game where students hunt for the drawings on matching colored backgrounds.

## NGSS Connections

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 Structure and Function – Animals have body parts that help them survive (skin protects them).
- \* K-LS1.C Organization for Matter and Energy Flow – Animals need certain things from their environment to live and grow.

Crosscutting Concepts:

- \* Patterns – Students observe patterns in how animals change and grow over time.
- \* Structure and Function – Students see how a lizard's skin (structure) helps protect it (function).

## Science Vocabulary

- \* Reptile: An animal with dry, scaly skin that lays eggs and is cold-blooded (its body temperature changes with the air around it).
- \* Skin: The outer covering that protects an animal's body.
- \* Shed (or Molt): When an animal loses its old skin so new skin can grow underneath.
- \* Adapt/Adaptation: A special body part or behavior that helps an animal survive in its environment.

- \* Camouflage: Colors or patterns on an animal's body that help it hide from other animals.
- \* Cold-blooded: An animal whose body temperature changes depending on how warm or cold its surroundings are.

### External Resources

#### Children's Books:

The Lizard and the Sun\* by Joanne Ryder (a poetic story about a lizard's day and life)

Lizards\* by Gail Gibbons (colorful non-fiction with clear illustrations of different lizard types)

Bearded Dragon\* by Theresa Greenaway (introduces students to a specific type of lizard)

#### YouTube Videos:

\* "What is a Reptile? | Reptiles for Kids" by National Geographic Kids (2:30 min) – Clear, age-appropriate overview of reptile characteristics with engaging visuals. <https://www.youtube.com/watch?v=VHq7bwBh2ao>

\* "Why Do Snakes and Lizards Shed Their Skin?" by Crash Course Kids (3:15 min) – Simple explanation of molting with real footage and friendly narration. <https://www.youtube.com/watch?v=vp2C7rLWu5U>

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Teacher Notes: This lesson emphasizes observable characteristics and life processes appropriate for First Grade. Students should engage in hands-on exploration rather than memorizing facts. Consider inviting a local nature expert or visiting a nearby nature center if available. Always prioritize safety—live animals should only be handled by trained adults with proper precautions in place.