

Photo Description



This lizard has a bright orange and red throat flap called a dewlap. The lizard is sitting on brown sticks and leaves. Its body is gray and brown with spots and patterns.

Scientific Phenomena

The Anchoring Phenomenon is animal communication through visual displays. This lizard is displaying its colorful dewlap (throat fan) as a form of communication. Male anoles extend their dewlaps to establish territory, attract mates, or warn other lizards. The bright colors and patterns serve as visual signals that other lizards can see and understand, similar to how humans use hand gestures or facial expressions to communicate without words.

Core Science Concepts

1. Animal Communication: Animals use different body parts to "talk" to each other without making sounds
2. Animal Body Parts: Different animals have special body parts that help them survive and communicate
3. Patterns in Nature: The lizard's spots, stripes, and colors follow patterns that help it blend in or stand out when needed
4. Living vs. Non-living: The lizard is a living thing that moves, grows, and responds to its environment

Pedagogical Tip:

Use dramatic play to help kindergarteners understand animal communication. Have students practice "showing" emotions or messages using only their bodies and facial expressions, just like the lizard uses its dewlap.

UDL Suggestions:

Provide multiple ways for students to demonstrate understanding by allowing them to draw, act out, or use simple words to show how animals communicate. Offer hands-on models or toys of lizards with moveable parts.

Zoom In / Zoom Out

1. Zoom In: The dewlap contains tiny blood vessels that fill with blood to make it expand and show bright colors. Special cells called chromatophores contain the colorful pigments.
2. Zoom Out: This lizard is part of a larger ecosystem where many animals use visual signals to communicate. The forest habitat provides the perfect backdrop for the lizard's camouflage and display behaviors.

Discussion Questions

1. What do you notice about this lizard's throat? (Bloom's: Remember | DOK: 1)
2. Why do you think the lizard shows its colorful throat to other lizards? (Bloom's: Analyze | DOK: 2)
3. How else do animals talk to each other without using words? (Bloom's: Apply | DOK: 2)
4. What would happen if all lizards looked exactly the same? (Bloom's: Evaluate | DOK: 3)

Potential Student Misconceptions

1. Misconception: "The lizard is angry or hurt because it's red."
Clarification: The red color is normal and healthy - it's how the lizard talks to other lizards.
2. Misconception: "All lizards look exactly the same."
Clarification: Different types of lizards have different colors, sizes, and special features like dewlaps.
3. Misconception: "The lizard's throat is always that color."
Clarification: The lizard can make its dewlap bigger and smaller, and the colors can change.

NGSS Connections

- Performance Expectation: K-LS1-1: Use observations to describe patterns of what plants and animals need to survive
- Disciplinary Core Ideas: K-LS1.C (Organization for Matter and Energy Flow in Organisms)
- Crosscutting Concepts: Patterns

Science Vocabulary

- * Dewlap: A flap of skin under an animal's throat that can change size and color
- * Communicate: To share information or feelings with others
- * Pattern: Something that repeats in a regular way
- * Display: To show something clearly so others can see it
- * Camouflage: Colors and patterns that help animals blend in with their surroundings

External Resources

Children's Books:

- Can You See Me? by Ted Lewin
- Chameleon, Chameleon by Joy Cowley
- Lizards by Gail Gibbons

YouTube Videos:

- "Anole Lizard Dewlap Display" - Shows real footage of lizards extending their colorful throat fans: <https://www.youtube.com/watch?v=vdzbUYd7en8>
- "How Do Animals Communicate?" by SciShow Kids - Explores different ways animals talk to each other: <https://www.youtube.com/watch?v=VjE0Kdfos4Y>