Owl
Life Science | Lesson Guide

Photo Description

This owl has brown and gray feathers with spots and lines. It has big round eyes and pointed ear tufts on top of its head. The owl is sitting on rocks and looks like it is resting during the day.

Scientific Phenomena

The anchoring phenomenon is camouflage in action - this owl's coloring and patterns help it blend in with tree bark and rocky surfaces. The mottled brown, gray, and white feathers with intricate patterns break up the owl's outline, making it harder for predators and prey to spot. This is an adaptive trait that has evolved over time because owls with better camouflage were more likely to survive and reproduce. The ear tufts also help break up the owl's silhouette, further enhancing its ability to hide in plain sight.

Core Science Concepts

1. Animal Body Parts and Their Functions - Owls have special body parts like large eyes for seeing in the dark, ear tufts for camouflage, and patterned feathers for blending in with their environment.

2. Camouflage as Survival - Animals use colors and patterns to hide from danger or to hunt for food. The owl's spotted and striped feathers help it look like tree bark or rocks.

3. Day vs. Night Animal Behavior - Owls are nocturnal, meaning they are active at night and sleep during the day. This owl appears to be resting.

4. Patterns in Nature - The owl's feathers show repeating patterns of spots, stripes, and colors that serve important purposes for survival.

> **Pedagogical Tip:**
> Use "I notice, I wonder, It reminds me of" thinking routines to help kindergarteners make observations before introducing scientific vocabulary. This builds their natural curiosity and observation skills.

> **UDL Suggestions:**
> Provide tactile experiences by having students feel different fabric textures that represent various animal coverings (soft for fur, smooth for feathers, rough for scales) to support multiple learning modalities.

Discussion Questions

1. What do you notice about the owl's feathers and how they look like the rocks? (Bloom's: Observe | DOK: 1)

2. Why do you think the owl has those colors and patterns on its feathers? (Bloom's: Analyze | DOK: 2)

3. How might the owl's big eyes help it survive? (Bloom's: Apply | DOK: 2)

4. What other animals have you seen that use colors or patterns to hide? (Bloom's: Apply | DOK: 2)

Extension Activities

1. Camouflage Hide and Seek - Give students different colored paper cutouts of animals and have them find the best hiding spots around the classroom where their animal would be hardest to see.

2. Design Your Own Animal - Students draw and color an animal that could hide in their backyard, choosing colors and patterns that match their outdoor environment.

3. Owl Pellet Observation - Examine sanitized owl pellets with magnifying glasses to discover what owls eat (bones, fur) and discuss how this helps owls survive.

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.C - All animals need food in order to live and grow, and 1-LS1.A - All organisms have external parts that help them survive
- Crosscutting Concepts: Patterns and Structure and Function

Science Vocabulary

* Camouflage: When an animal's colors or patterns help it blend in and hide
* Nocturnal: Animals that are awake and active at night
* Feathers: The light, fluffy covering that keeps birds warm and helps them fly
* Pattern: Colors, shapes, or designs that repeat over and over
* Predator: An animal that hunts other animals for food

External Resources

Children's Books:
- Owl Moon by Jane Yolen
- Little Owl's Night by Divya Srinivasan
- Whooo's There? by Kathy Darling

YouTube Videos:
- "Owl Babies - Amazing Animal Families" - Shows baby owls and their behaviors in nature (https://www.youtube.com/watch?v=gBjnfgnHNAQ)
- "How Do Animals Camouflage? | Animal Science for Kids" - Explains camouflage with multiple animal examples including owls (https://www.youtube.com/watch?v=ajX5A9g5R4s)