Mourning Dove

Life Science | Lesson Guide

3rd Grade

Photo Description

A small, brown bird called a mourning dove sits quietly on dark soil in a garden. The dove has gray-brown feathers with small spots and is surrounded by green plants, white flowers, and a large clay pot.

Scientific Phenomena

This image represents the Anchoring Phenomenon of habitat selection and animal adaptation. The mourning dove has chosen this garden location because it provides essential survival needs: shelter from predators among the plants, potential food sources like seeds, and suitable nesting materials. The dove's neutral coloring helps it blend with the soil and plant debris, demonstrating camouflage as a survival adaptation. This behavior shows how animals actively select environments that meet their basic needs for survival.

Core Science Concepts

1. Animal Habitats: Animals choose specific environments that provide food, water, shelter, and space to raise their young.

2. Camouflage and Protection: The dove's brown and gray coloring helps it blend into its surroundings, making it harder for predators to spot.

3. Basic Needs of Animals: All animals, including birds, need food, water, shelter, and a safe place to reproduce.

4. Human Impact on Wildlife: Gardens created by humans can provide habitat for wild animals like birds.

Pedagogical Tip:

Use the "Think-Pair-Share" strategy when discussing animal needs. Have students first think individually about what the dove might need to survive, then discuss with a partner, and finally share with the class. This builds confidence and ensures all students participate.

UDL Suggestions:

Provide multiple ways for students to express their observations by offering options like drawing, verbal descriptions, or using movement to show how the bird might behave. Consider creating a sensory bin with different textures representing soil, leaves, and twigs for tactile learners.

Zoom In / Zoom Out

Zoom In: The dove's feathers have microscopic structures called barbules that hook together to create smooth, waterproof surfaces. These tiny structures help keep the bird warm and dry while also creating the patterns and colors we see.

Zoom Out: This garden is part of a larger urban ecosystem where human-modified landscapes create corridors and patches of habitat that connect to larger natural areas, allowing wildlife like mourning doves to move between food sources and nesting sites across the community.

Discussion Questions

1. What evidence can you see in the photo that shows this garden provides what the dove needs to survive? (Bloom's: Analyze | DOK: 2)

2. How might this dove's behavior change if the garden had no plants or hiding spots? (Bloom's: Apply | DOK: 2)

3. What other animals might also find this garden habitat suitable, and why? (Bloom's: Evaluate | DOK: 3)

4. If you were designing a garden to help birds, what features would you include based on what you observe about this dove's needs? (Bloom's: Create | DOK: 3)

Potential Student Misconceptions

1. Misconception: "Birds only live in trees or birdhouses."
Clarification: Many birds, like mourning doves, spend significant time on the ground searching for food and may even nest in low shrubs or on the ground.

2. Misconception: "All brown birds are the same kind of bird."
Clarification: There are many different species of brown birds, each with unique features, behaviors, and habitat preferences.

3. Misconception: "Birds don't need water because they don't drink like dogs or cats."
Clarification: Birds need water for drinking and bathing, and they get it from various sources including puddles, bird baths, and dew on plants.

Cross-Curricular Ideas

1. ELA - Narrative Writing: Have students write a short story from the perspective of the mourning dove. "A Day in the Garden" could describe the dove's morning routine, what it eats, where it hides, and how it stays safe. This connects writing skills with scientific understanding of animal behavior.

2. Math - Data Collection and Graphing: Students can conduct a simple bird observation study in a school garden or outdoor space. They count how many birds they see over several days and create a bar graph showing which types of birds visit most often. This builds graphing skills while reinforcing habitat observation.

3. Art - Camouflage Patterns: Students create their own animal using earth tones and natural patterns inspired by the mourning dove's coloring. They can paint or draw their animal in a habitat setting and explain how the colors help the animal hide from predators, combining art with scientific communication.

4. Social Studies - Community Gardens: Explore how gardens in neighborhoods help both people and wildlife. Students can research local community gardens, interview gardeners about the animals they've seen, and create a class map showing where gardens are located in their community.

STEM Career Connection

1. Ornithologist (Bird Scientist): An ornithologist is a scientist who studies birds. They observe birds in their habitats, learn about their behaviors, diets, and how they raise their babies. Ornithologists help protect birds by understanding what they need to survive. They work outdoors in forests, gardens, and wetlands, and sometimes in museums or universities studying bird collections. Average Annual Salary: $65,000 - $75,000

2. Landscape Designer: A landscape designer plans and creates beautiful outdoor spaces like gardens, parks, and yards. They think about which plants to include, where to place water features, and how to make spaces where both people and animals can thrive. These designers help create habitats for wildlife while making neighborhoods more attractive. Average Annual Salary: $55,000 - $70,000

3. Habitat Restoration Specialist: These scientists and workers restore natural habitats that have been damaged or changed by humans. They plant native plants, remove invasive species, and create safe spaces for animals like birds to live and raise their families. This job combines outdoor work with environmental science to help wildlife communities recover. Average Annual Salary: $45,000 - $60,000

NGSS Connections

Performance Expectation: 3-LS4-3 - Construct an argument with evidence that in a particular habitat some organisms can survive well, some survive less well, and some cannot survive at all.

Disciplinary Core Ideas:
- 3-LS4.C - Environmental changes can affect organisms and their habitats
- 3-LS4.D - Populations live in a variety of habitats

Crosscutting Concepts:
- Cause and Effect - Students can identify how habitat features cause certain animals to thrive
- Systems and System Models - Gardens function as small ecosystems with interacting parts

Science Vocabulary

* Habitat: The natural home where an animal finds everything it needs to survive.
* Camouflage: Colors or patterns that help an animal blend in with its surroundings.
* Adaptation: A special feature that helps an animal survive in its environment.
* Predator: An animal that hunts and eats other animals.
* Environment: All the living and non-living things in a place where an animal lives.

External Resources

Children's Books:
- "Are You My Mother?" by P.D. Eastman
- "A Nest Full of Eggs" by Priscilla Belz Jenkins
- "About Birds: A Guide for Children" by Cathryn Sill