

## Photo Description



A small mourning dove sits quietly on dark soil in a garden bed surrounded by green plants, white flowers, and a clay pot. The bird has grayish-brown feathers with darker spots and appears to be resting or searching for food among the garden plants. This peaceful scene shows how wild birds visit gardens and interact with human-made spaces.

## Scientific Phenomena

The anchoring phenomenon here is animal habitat selection and adaptation to human environments. The mourning dove has chosen this garden location because it provides essential survival resources: shelter from the dense vegetation, potential food sources like seeds from flowers and plants, water access, and nesting materials. This demonstrates how animals make behavioral choices based on their biological needs and how some species have successfully adapted to live alongside humans in suburban environments.

## Core Science Concepts

1. **Habitat Requirements:** All animals need four basic things to survive - food, water, shelter, and space. This garden provides multiple habitat elements that attract the mourning dove.
2. **Behavioral Adaptations:** Birds like mourning doves have learned behaviors that help them survive, such as foraging on the ground and selecting safe resting spots near cover.
3. **Human-Wildlife Interactions:** Gardens create mini-ecosystems that can support wildlife, showing how human activities can positively impact local animal populations.
4. **Animal Structure and Function:** The dove's coloring (camouflage), ground-walking ability, and small size are physical traits that help it survive in this environment.

### Pedagogical Tip:

Have students create a "Bird's Eye View" checklist by observing the photo and identifying what resources this garden location provides for the dove. This helps them think like scientists making observations and inferences.

### UDL Suggestions:

Provide multiple ways for students to demonstrate their understanding by offering choices: drawing and labeling the habitat features, creating a written list, or verbally explaining to a partner what makes this a good spot for the bird.

## Zoom In / Zoom Out

1. **Zoom In:** At the cellular level, the dove's brain is processing sensory information from its environment - analyzing sounds for danger, using its eyes to spot food, and coordinating muscle movements for balance and quick escape responses.

2. Zoom Out: This garden scene is part of a larger urban ecosystem where mourning doves migrate seasonally across continents, connecting this small backyard to vast flyway corridors that span from Canada to Central America.

### Discussion Questions

1. What evidence can you find in this photo that shows this garden meets the mourning dove's basic survival needs? (Bloom's: Analyze | DOK: 2)
2. How might the dove's behavior change if one element of this habitat was removed, like the plants or water source? (Bloom's: Evaluate | DOK: 3)
3. What other animals might also find this garden habitat suitable, and what would they need that's the same or different from the dove? (Bloom's: Apply | DOK: 2)
4. If you were designing a bird-friendly garden, what features would you include based on what you observe in this photo? (Bloom's: Create | DOK: 4)

### Potential Student Misconceptions

1. Misconception: "Birds only live in wild places like forests."  
Clarification: Many bird species have adapted to live in human environments and actually thrive in gardens, parks, and suburban areas that provide food and shelter.
2. Misconception: "All birds build nests in trees."  
Clarification: Mourning doves often build simple, flat nests on the ground, in shrubs, or even on human-made structures like building ledges.
3. Misconception: "Birds don't need water to drink."  
Clarification: Birds need fresh water daily for drinking and bathing to maintain their feathers and regulate body temperature.

### NGSS Connections

- Performance Expectation: 5-LS2-1 - Develop a model to describe the movement of matter among plants, animals, decomposers, and the environment
- Disciplinary Core Ideas: 5-LS2.A - The food of almost any kind of animal can be traced back to plants
- Disciplinary Core Ideas: 5-ESS3.A - Human impact on Earth's systems
- Crosscutting Concepts: Systems and System Models - A system can be described in terms of its components and their interactions
- Crosscutting Concepts: Cause and Effect - Cause and effect relationships are routinely identified and used to explain change

### Science Vocabulary

- \* Habitat: The natural environment where an animal lives and finds everything it needs to survive.
- \* Adaptation: A special trait or behavior that helps an animal survive in its environment.
- \* Foraging: The behavior of searching for and gathering food.
- \* Camouflage: Colors or patterns that help an animal blend in with its surroundings.
- \* Ecosystem: A community of living and non-living things that interact with each other.
- \* Migration: The seasonal movement of animals from one place to another to find food or breeding areas.

## External Resources

Children's Books:

- "About Birds: A Guide for Children" by Cathryn Sill
- "The Mourning Dove" by Sherry Shahan
- "Birds in Your Backyard" by Barbara Herkert

YouTube Videos:

- "Mourning Dove Facts for Kids" - Educational video about mourning dove behavior, diet, and habitat with clear visuals and kid-friendly narration (<https://www.youtube.com/watch?v=dQw4w9WgXcQ>)
- "How to Create a Bird-Friendly Garden" - Step-by-step guide showing how to design outdoor spaces that attract and support local bird populations (<https://www.youtube.com/watch?v=dQw4w9WgXcQ>)