

## Photo Description



A small brown bird sits on the ground in a garden. The bird has gray and brown feathers and is near green plants and flowers. There is a big clay pot and some white flowers around the bird.

## Scientific Phenomena

This image shows the Anchoring Phenomenon of animal habitat selection and foraging behavior. The mourning dove is demonstrating how birds choose specific locations that meet their basic survival needs. The bird selected this garden area because it provides food sources (seeds from plants), water (likely from garden irrigation), shelter (plants and structures for protection), and nesting materials. This behavior occurs because animals have evolved to recognize and seek out environments that increase their chances of survival and reproduction.

## Core Science Concepts

1. Animal Needs: All animals need food, water, shelter, and space to survive, just like this bird found in the garden.
2. Habitat Requirements: Animals choose places to live that give them everything they need to stay alive and healthy.
3. Animal Behavior: Birds and other animals act in ways that help them find food and stay safe from danger.
4. Garden Ecosystems: Gardens create small environments where plants and animals can live together and help each other.

### Pedagogical Tip:

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

### UDL Suggestions:

Provide multiple ways for students to express their observations by offering drawing, verbal descriptions, or simple written responses. Create a visual anchor chart with pictures showing the four basic animal needs (food, water, shelter, space) that students can reference throughout the lesson.

## Zoom In / Zoom Out

1. Zoom In: The bird's digestive system breaks down seeds using a special part called a gizzard, which acts like tiny teeth to grind up hard seeds since birds don't have real teeth.
2. Zoom Out: This garden is part of a larger neighborhood ecosystem where many different animals find homes, and birds like this dove help spread plant seeds to new places when they travel and leave droppings.

## Discussion Questions

1. What do you think this bird needs to survive in this garden? (Bloom's: Apply | DOK: 2)
2. How is this bird's home different from where a fish lives? (Bloom's: Analyze | DOK: 2)
3. Why do you think the bird chose to sit in this garden instead of on the sidewalk? (Bloom's: Evaluate | DOK: 3)
4. What might happen to this bird if all the plants in the garden were removed? (Bloom's: Evaluate | DOK: 3)

## Potential Student Misconceptions

1. Misconception: "Birds only eat worms and bugs."

Clarification: Many birds, like this mourning dove, mainly eat seeds, fruits, and grains, while others eat insects, fish, or other foods.

2. Misconception: "Animals live anywhere they want to."

Clarification: Animals can only live in places that have everything they need to survive - the right food, water, shelter, and space.

3. Misconception: "Birds don't need water because they don't drink like dogs."

Clarification: All birds need water to drink and sometimes to bathe, just like all living things need water to survive.

## Cross-Curricular Ideas

1. Math + Science: Create a simple data collection activity where students count and record how many different birds visit the class garden or a window bird feeder over one week. Students can then make a bar graph showing which types of birds visited most often. This connects animal observation to data representation and graphing skills.
2. ELA + Science: Have students write or dictate simple "bird journals" where they describe what they observe about birds in a garden or outdoor space. Students can draw pictures and label the bird's body parts, plants, and other habitat features. This builds descriptive vocabulary and writing skills while reinforcing science observations.
3. Art + Science: Students can create a mixed-media garden habitat diorama or collage using natural materials (leaves, twigs, seeds) and craft supplies. They must include all four animal needs (food, water, shelter, space) in their creation, combining artistic expression with scientific understanding of habitats.
4. Social Studies + Science: Discuss how people design and care for community gardens. Students can learn that gardens help both people and animals. Invite a local gardener or community garden coordinator to visit the classroom, connecting environmental stewardship to civic responsibility and community helpers.

## STEM Career Connection

1. Ornithologist (Bird Scientist): An ornithologist is a scientist who studies birds—how they live, what they eat, where they build nests, and how they behave. They might spend time in gardens, forests, or wetlands watching and counting birds to learn more about them. Ornithologists help protect birds and their habitats so they stay healthy and safe.  
- Average Annual Salary: \$65,000 - \$75,000
2. Landscape Designer: A landscape designer plans and creates beautiful outdoor spaces like gardens and parks. They decide where to plant flowers, shrubs, and trees, and how to design spaces so that both people and animals (like birds and butterflies) can enjoy them. They think about what plants and animals need to thrive together in one place.

- Average Annual Salary: \$55,000 - \$70,000

3. Wildlife Biologist: A wildlife biologist studies how animals live in nature and in different habitats. They observe animals like birds, study what they eat, where they live, and how they interact with plants and other animals. Wildlife biologists help protect animals by making sure their habitats stay healthy and safe.

- Average Annual Salary: \$60,000 - \$80,000

### NGSS Connections

Performance Expectation: 2-LS4-1 Make observations of plants and animals to compare the diversity of life in different habitats.

Disciplinary Core Ideas:

- 2-LS4.D There are many different kinds of living things in any area, and they exist in different places on land and in water.

Crosscutting Concepts:

- Patterns Patterns in the natural world can be observed and used as evidence.

### Science Vocabulary

- \* Habitat: The place where an animal lives and finds everything it needs to survive.
- \* Foraging: When animals search for and gather food.
- \* Shelter: A safe place where animals can hide from danger and bad weather.
- \* Ecosystem: A place where plants and animals live together and depend on each other.
- \* Behavior: The way an animal acts to help it survive.

### External Resources

Children's Books:

- A Seed Is Sleepy by Dianna Hutts Aston
- Birds, Nests and Eggs by Mel Boring
- In the Garden with Dr. Carver by Susan Grigsby