WINGIN' IT LESSON PLAN

A Conservation Nation Academy Lesson
Please visit www.conservationnation.org/lessons for complete lesson materials including the lesson video, student worksheet, and vocabulary list.

GRADES

5-8 (can be adapted to lower grades)

TIME REQUIRED

Two 45-minute class periods

SUMMARY

In this two-part lesson, students join birding expert Sam DeJarnett to learn how to spot, hear, and record bird activity—no special gear needed. They'll explore how habitat quality affects bird populations, use real scientific data to spot patterns in bird declines, and brainstorm solutions to protect species, all while seizing the opportunity to get outdoors to spark curiosity and notice the world of birds around them.

OBJECTIVES

Students will be able to...

- Spot at least three signs of bird activity using sight and hearing.
- Compare two different bird habitats and their resources.
- Analyze bird decline data and form an argument on bird habitat loss and population changes.
- Provide at least two ways to improve habitat quality for birds based on evidence and observations.

MATERIALS

Available at www.conservationnation.org/lessons

- Pre-read article, All About Birds, from Cornell Ornithology Labs with focus on two specific charts: 2.9 Billion Birds Gone and Bird Biome Declines (available at the links or to print in the lesson materials)
- US Fish and Wildlife Biome Loss map
- Simple Actions to Help Birds article
- Wingin' It video
- Wingin' It student worksheet
- Vocabulary list

NEXT GENERATION SCIENCE STANDARDS

Life Science (LS2 – Ecosystems: Interactions, Energy, and Dynamics)

- **MS-LS2-1:** *Analyze and interpret data to provide evidence for the effects of resource availability on organisms and populations of organisms in an ecosystem.*
  - Students compare bird activity in two habitats and discuss differences in resources (food, shelter, water).
- **MS-LS2-2:** *Construct an explanation that predicts patterns of interactions among organisms across multiple ecosystems.*
  - Students identify signs of bird activity, discuss predator-prey relationships, and infer patterns between habitats.
- **MS-LS2-4:** *Construct an argument supported by empirical evidence that changes to physical or biological components of an ecosystem affect populations.*
  - The Cornell bird decline data and habitat loss maps give students evidence to reason about population changes.
- **MS-LS2-5:** *Evaluate competing design solutions for maintaining biodiversity and ecosystem services.*
  - Students brainstorm ways to improve habitat quality for birds based on their observations.

INSTRUCTIONS FOR CLASS 1 (45 minutes)

1. **Introduction – 2 minutes**

a. Briefly explain the goal: to notice and record signs of bird activity, then compare bird habitats.

b. Hand out student worksheets or present the worksheet on screen for students to copy into a notebook.

2. Watch the Video – 14 minutes

View *Wingin' It* video online. Encourage students to jot down at least two birding tips from the video on their worksheet or notebook.

3. First Habitat Observation – 10 minutes

a. Students work solo or in pairs (one observer, one scribe, then switch).

b. Fill out the "Habitat" section on the worksheet first, observing and recording:

1. Different plants and trees (tall, short, leafy, or bare)
2. Any nearby water (puddles, fountains, ponds)
3. Areas that are shady or sunny. Areas that are open or covered
4. Places for birds to build nests (tree branches, bushes, building ledges, streetlights)
5. Human-made structures that could help or hinder birds (fences, playground equipment, buildings)

c. Fill out other relevant sections of the worksheet, documenting other bird clues, shapes and movement. Have students try to draw their observations as Sam did in the video.

5. Move to Second Habitat – 2 minutes

Transition to a different habitat (can be another part of the schoolyard with different vegetation or features).

6. Second Habitat Observation – 10 minutes

Repeat the same process: record habitat features and signs of bird activity on the worksheet or notebook.

7. Final Comparison Discussion – 7 minutes

As a class, compare data:

a. What signs of birds did you find?

b. Which habitat had more bird activity or variety?

c. Why might that be?
d. What might help each habitat support more birds?

INSTRUCTIONS FOR CLASS 2 (45 minutes)

1. Read or review the pre-read article – 5 minutes

As a class or individually, students read or review (if assigned as homework) the pre-read article here: All About Birds, with focus on two specific charts: 2.9 Billion Birds Gone and Bird Biome Declines

2. Introduce Global Bird Trends – 5 minutes

a. Show the 2.9 Billion Birds Gone graph from Cornell Ornithology Lab.
b. Ask students what they notice about overall bird population changes.

3. Explore Bird Biome Declines – 5 minutes

a. Show the Bird Biome Declines figure.
b. Ask the class: *Which habitats have lost the most birds? What patterns do you see?*

4. Link to Habitat Loss – 5 minutes

a. Display the U.S. Fish & Wildlife grasslands loss map.
b. Ask: *What does this map tell us? How does it connect to the bird decline data? Could this happen in other habitats?*

5. Causes & Connections – 5 minutes

a. Ask the class: What might be the possible causes of these declines in bird populations? (e.g., habitat loss, pollution, climate change, agriculture or other human activity).
b. Encourage students to connect these large-scale causes to the differences they saw in their own habitat observations.
    1. In your two habitat observations, which location had more bird species or more signs of bird activity? Why do you think that was?

2. How might human activity (like building, landscaping, or gardening) have shaped the habitats you observed?

6. Action Planning – 8 minutes

a. Students read and review Cornell's Seven Simple Actions to Help Birds. This can be printed or projected on screen.
b. In small groups, students brainstorm 2–3 actions that could improve bird habitats.
c. Have each group share one action they think is most realistic and impactful in their area.
d. Ask individual students to share an action they or their families might take to protect birds.

7. Reflection – 5 minutes

a. Ask: *How did connecting your own bird observations to real scientific data change your thinking?*
b. Have students complete the exit ticket to complete the lesson.
    1. English: https://create.kahoot.it/share/wingin-it-exit-quiz/cd7c4e4b-cc72-4791-bc62-73376262a71e
    2. Spanish: https://create.kahoot.it/share/wingin-it-cuestionario-de-salida-espanol/5ce4da60-f8be-4a34-97fc-cab4ddde037f

ADDITIONAL ACTIVITIES (for lower grades)

Try one of these activities to build on your students' exploration of birds!

- Match the bird beak to their food source! Conduct an experiment using various household tools (such as chopsticks, tweezers, pliers, eyedroppers, and sifters) to see which of these "bird beaks" is best adapted to eat different sources of food. Utilize items such as birdseed, dyed water, pipe cleaners, gummy worms, or pasta shells to represent different types of food. Discuss how different 'beaks' are adapted to different food sources.

- Test your students' camouflaging abilities! Using old magazine photos, glue, and other art supplies as needed, give students an image of a bird and challenge them to build a habitat collage that will camouflage their bird.

LEARN MORE

If you would like to dive deeper into the world of birding, check out some of the following resources:

- Cornell Lab of Ornithology K-12 Education: https://www.birds.cornell.edu/k12/
- Merlin Bird ID App: https://merlin.allaboutbirds.org/
- eBird Community Science App: https://ebird.org/
- *Flying WILD: Birds Across the Curriculum* educator's guide: https://www.fishwildlife.org/projectwild/flying-wild
- Audubon for Kids: https://www.audubon.org/get-outside/activities/audubon-for-kids

We hope you enjoyed this lesson!
Learn more about Conservation Nation at www.conservationnation.org