



Schoolyard Birds

Connected Next Generation Science Standard

K-ESS2-2 Construct an argument supported by evidence for how plants and animals (including humans) can change the environment to meet their needs.

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

Featured Science and Engineering Practice

Developing and Using Models

Featured Cross-Cutting Concept

Structure & Function

Read the book *Ruby's Birds* by Mya Thompson or another animal picture book to introduce how to make bird observations.

Depending on the student grade level, either use the term "home" or "habitat" and remain consistent with verbiage throughout.

Overview

This bird lesson can be adjusted to meet your objectives with many additional bird resources at the end. Practice observation skills and mapping for a lesson or expand it to include bird videos and creating a bird habitat. Birds and school yard habitat lessons work well in colder weather when the garden is inactive and quick outdoor lessons are needed.

Students will

- Practice good observation behavior to find schoolyard birds
- Identify if the schoolyard is a good bird habitat
- Determine if birds and humans change the schoolyard to meet their needs

Teacher Preparation

- Walk through the schoolyard and notice where birds might be found and if any nests are visible in the trees.
- Decide what (if any) bird habitat solution your class will do in the Making Connections section.

Guiding Question - Is the schoolyard a good home for birds?

Explore

- Before going outside, ask students to wonder if the schoolyard will be a good home (**habitat**) for birds. Have students turn and talk about why or why not they think birds can live by the school.
- What do birds (and all animals) need to survive? Lead students to understand that **food, water**, and a place to live, or **shelter**, are all needed for birds. Do you think the schoolyard has all 3?
- *What parts of the schoolyard do you think we will see the most birds - the parking lot, on the building, in trees, etc?*



Schoolyard Birds

Materials

- Teacher - small whiteboard, chalkboard, or poster-board
- Garden notebooks or worksheets and clipboards
- Marker, crayons, or colored pencils
- *Optional* - Classroom iPads or other another way to take photos. Real binoculars or fake toilet paper roll "binoculars." Printouts of the school grounds.

Setting

- Schoolyard or walk around a city block.
- Works well in the winter.

To keep students engaged during the bird walk, introduce the idea that some birds flap their wings and others soar. As students walk longer distance, mimic birds by flapping their arms as they walk or keeping their arms straight out to "soar."

Which is more tiring?

- Tell students, *today we are going to go outside to answer this question. If we want to observe birds, how should we act?*
- Brainstorm as a class how scientists and the students act to make animal observations - be quiet, walk slowly and calmly, and look all around.
- *Optional:* To help students focus their observations, either introduce real binoculars or make easy fake "binoculars" out of 2 toilet paper rolls duct taped together with a string strap. Students can also decorate the binoculars with tissue paper or other materials. Alternatively, students can take pictures.
- Depending on student writing ability, students can record notes or the teacher can take notes of student observations.
- Divide the class into two groups. Half the class is looking for birds and the other half is looking for bird needs - food, water, and shelter (nests).
- Go on a schoolyard bird walk or walk around the block. For younger students, overemphasize the importance of moving quietly by whispering and dramatically walking heel-to-toe with bent knees.
- Periodically circle up to notice or take pictures of birds, nests, food sources, or water.

Digging Deeper

- Once you have finished the bird walk, tell students they are now going to imagine they are a bird looking down on the schoolyard. They are going to draw a "birds-eye view" map of the habitat they just explored.
- From memory, notes, or photographs, students will draw a map of the schoolyard, including where they saw birds and potential bird food, water, and shelter/nests.
- Hand out paper and art supplies.
- The maps do not need to accurately capture the school grounds but are an exercise to show their understanding. *Optional:* Print out or display the Google Earth image of the school yard. Students can draw directly on the map.
- As students draw, walk around to ask guiding questions about their observations.



Schoolyard Bird Habitats

Additional Bird Resources

Bird identification and videos

www.allaboutbirds.org

Bird Curriculum Resources

www.birds.cornell.edu/k12/

Missouri Bird Guide

nature.mdc.mo.gov

To emphasize bird migration and changing seasons, complete the Explore section multiple times throughout the year.

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Resources

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Discover season-specific gardening how-to's and examples of current lessons:



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Making Connections

- When students have finished drawing, look back at the guiding question. Have students discuss in small groups or pairs why or why not the schoolyard is a good bird habitat. *What evidence did they draw on the map to support their argument?*
- Bring the class back together and ask, *How do birds change the schoolyard habitat?* Discuss or have students circle on the map places where the birds have made nests.
- In some habitats, people can help animals get what they need to survive. What bird need do you think is the hardest for birds to find?
- Depending on student observations and time, create a solution to meet the birds' need.
 - **Food** - Set up or create a bird feeder outside the classroom window.
 - **Shelter** - Decorate or make a birdhouse or make fake bird nests using garden materials.
 - **Water** - Install a birdbath or water the garden frequently.