



Unit Study: Birds

Accessing Prior Knowledge

What do you already know?

Consider making a unit notebook to write down what is already known and to later record what is learned. Keeping a unit notebook encourages students to record and reflect on inquiry-based observations, activities, investigations, and experiments. Unit notebooks are also an excellent way to communicate understanding of concepts through writing and drawing.

Subject Areas: Communication, Writing, Art

Fieldwork

Use your senses. What do you notice? What do you want to know more about?

- Go on a bird watching adventure. Don't forget your unit notebook and your binoculars! Look around for birds and evidence of birds. Listen for bird songs. Write about your observations in your unit notebook. Consider sketching what you see. Take photos to add to your notes. This book might be a useful resource for you: *Bird Watching for Kids* by George H. Harrison.
- Some people find it helpful to work out ways to remember what a bird's song sounds like. Here is a list of mnemonics that might help you identify birds by their songs:
<https://web.stanford.edu/~kendric/birds/birdsong.html>
- In February, you can participate in an international activity called "The Great Backyard Bird Count!" Find information and sign up here: <https://gbbc.birdcount.org/about/>
- Can you find a lost feather and an abandoned bird's nest? Use gloves to pick them up and take them home for examination. You could use a hand lens to make observations.
- Observe birds in their natural habitats all over the world. <https://www.allaboutbirds.org/cams/>
- The Audubon Society recommends some apps to enhance your experiences:
 - <https://www.audubon.org/news/six-apps-better-your-next-birding-adventure>
 - <https://www.audubon.org/news/which-bird-apps-are-best-kids#>

Subject Areas: Communication, Writing, Art, Science

Research—Using Resources to Learn More

What resources will you use to learn more about the topic? Here are some suggestions.

Videos:

- How Do Birds Fly? <https://www.youtube.com/watch?v=3So7OMwNgy8>
- Watch a Weaver Bird Build a Nest <https://www.youtube.com/watch?v=qbWM1QAVGzs>
- Blackbird Nesting <https://www.youtube.com/watch?v=g1zCj3Tltxw>
- Baby Hummingbirds Life Cycle <https://www.youtube.com/watch?v=s-PR0Egcm8k>
- The World's Most Beautiful Bird Songs <https://www.youtube.com/watch?v=q15dT8h-ORU>
- Feet and Claws of Birds <https://www.youtube.com/watch?v=15jupeMQan0>

Print Resources:

- *Birds: Winged and Feathered Animals* by Suzanne Buckingham Slade
- *Ultimate Explorer Field Guide: Birds (National Geographic Kids Ultimate Explorer Field Guide)* by Julie Beer
- *Beaks!* by Sneed Collard, III
- *Ducks Don't Get Wet* by Augusta Goldin
- *Bird Nests: Amazingly Ingenious and Intricate* by Stan Tekiela
- *Birds, Nests & Eggs (Take Along Guides)* by Mel Boring
- *The Emperor Lays an Egg* by Brenda Gulberson
- *The Atlas of Amazing Birds* by Matt Sewell
- *Feathers, Not Just for Flying* by Melissa Stewart
- *The Goose Man: The Story of Conrad Lorenz* by Elaine Greenstein
- *Ruby's Birds* by Mya Thompson
- *Two Blue Jays* by Anne Rockwell
- *Mama Built a Little Nest* by Jennifer Ward
- *Bird Log Kids (Nature Journals)* by DeAnna Brandt
- *Birds That Don't Fly (Birds Up Close)* by Bobbie Kalman

Board Games to Extend the Learning:

- *What Bird Am I? The Bird Identification Game*—Manufacturer: Outset Media
- *Bird Bingo*—Manufacturer: Laurence King Publishing

Subject Areas: Reading and Language Arts, Science

Active Learning Through Experiments, Experiences, and Simulations

What activities can I participate in that will deepen my understanding? Take notes and make diagrams about what you did and what you learned.

- Explore the relationship between a bird's beak and its ability to find food and survive in a given environment. <http://sciencenetlinks.com/lessons/bird-beaks/>
- Consider how difficult it must be for a bird to build a strong nest. How about a nest building simulation?! <https://sciencespot.net/Media/Build-A-NestChallenge2012.pptx>
- How strong are a bird's hollow bones? Here is a simulation you might want to try. <https://www.education.com/download-pdf/activity/37103/>
- How much do birds weigh? Consider using the chart on this site for weight comparisons. This chart uses U.S. coins, but you could also compare weights with other common household items. <http://lansingwbu.blogspot.com/2014/04/birds-by-average-weight.html>
- Here is an activity in which you can compare a bird's wingspan to your own. Why not include the whole family?! <https://www.wesleyan.edu/earthoutloud/resources/pdf/radicalraptors/wingspanactivity.pdf>

Subject Areas: Reading, Writing, Science, Math

Presentation and Reflection

What did you learn? Your unit notebook is an excellent collection of the work that you did, the discoveries that you made, the questions that you had.

Share your unit notebook with someone: your family, friends, your mentor.

Talk about your findings.

What feedback did you get?

What do you want to know more about?