

TEACHER'S GUIDE

Includes Common Core Standards Correlations

Bird Count

Written by Susan Edwards Richmond Illustrated by Stephanie Fizer Coleman

HC: 978-1-56145-954-4 Ages 4–8 Lexile • F&P • GRL M; Gr 2



ABOUT THE BOOK

Ava is excited when Big Al asks her to record their team's tally for the annual Christmas Bird Count. Using her most important tools—her eyes and ears—and the birding techniques she's learned, Ava identifies and counts the birds on their assigned route around town. At the end of the day, Ava's team meets up with other teams in the area for a Christmas Bird Count party, where they combine totals and share stories about their observations.

This informative story by author Susan Edwards Richmond, with Stephanie Fizer Coleman's charming depictions of birds in their winter habitats, is the perfect book to introduce young readers to birdwatching. The text offers simple explanations of identification methods used by birdwatchers and clear descriptions of bird habitats. A section in the back provides more information about the twenty-four birds featured in the book and about the hemisphere-wide bird census known as the Christmas Bird Count.

The National Audubon Society's Christmas Bird Count is an example of citizen science, ordinary people doing real science research. Through an engaging fictional narrative, *Bird Count* shows young children that observing nature in their own surroundings is not only an important part of conservation research, but also lots of fun!

SKILLS

- Observation
- Identification
- Description
- Counting
- Tallying
- Classification

THEMES

- Birds
- Habitats
- Citizen science
- Biodiversity
- Humans and the environment

For detailed lesson plans and additional activities, visit:

www.susanedwardsrichmond.com/resources

TEACHING SUGGESTIONS

The nonfiction information in this engaging story makes it ideal for launching a birdwatching unit in your classroom. Your students can compare the birds Ava sees on her count to ones they observe at window feeders, in your schoolyard, or on nature walks. Because birds are visible in almost every habitat, they are ideal for introducing children to nature observation. NGSS 2-L S4-1

BEFORE YOU READ Grades K-1

- Show children the cover of the book. Ask if they have ever looked through binoculars. How did it change what they saw? Explain that the girl in the story uses binoculars to help her see the birds. But the most important tools she uses are parts of her body. Ask children what parts of their body they might use to see and hear birds. CCSS.ELA-LITERACY.RI.K-5, CCSS.ELA-LITERACY.RI.K-1.7
- Discuss the difference between authors and illustrators. Tell children that the *author*, Susan Edwards Richmond, wrote the words of the book and the *illustrator*, Stephanie Fizer Coleman, created the pictures. CCSS.ELA-LITERACY.RI.K.6

Grades 2-3

Have children read the title and look at the cover illustration. Ask them what they think the book might be about. Encourage children to share what they know about birds and write their ideas on chart paper. CCSS.ELA-LITERACY.RI.3.7

AS YOU READ Grades K-1

Ask students to think about where the main character, Ava, finds different species of birds and the ways she identifies them. CCSS.ELA-LITERACY.RI.1.1

Grades 2-3

- Brainstorm the names of some local birds. Write the names on chart paper. Tell children to pay attention to the birds Ava sees and compare them to the birds in your area. CCSS.ELA-LITERACY.RI.2.1, CCSS.ELA-LITERACY.RF.K.1B
- Review the concept of *habitat*. Ask children what a habitat must include in order for animals to live

there. Write their ideas down. Tell them to pay attention to the different habitats Ava visits on her bird count. **CCSS.ELA-LITERACY.RI.2.4**

AFTER YOU READ Grades K-1

Ask children to identify the main idea of *Bird Count*. Have children use the details they remember to support that idea. **CCSS.ELA-LITERACY.RI.1.7**

Grades 2-3

- As a group, ask students to identify two habitats presented in the book and compare them. Discuss how the habitats support the birds who live there.
 CCSS.ELA-LITERACY.RI.3.1, CCSS.ELA-LITERACY.SL.3.1.B
- Ask students to summarize what happens in the story. CCSS.ELA-LITERACY.RL.2.5

CURRICULUM CONNECTIONS

SCIENCE Grades K-1

- Install a window feeder or feeders near your classroom to observe birds up close. Provide colored pencils, fine-tipped markers, or other drawing implements and paper to encourage observational drawing. Ask children if they would like to add words to their drawings. NGSS K-LS1-1
- Discuss with children what birds eat. Refer to Bird Count to talk about the foods birds eat in the story. Compare this to what children see your local birds eating. Be sure to include the season in your discussion. For example, if you are reading Bird Count in winter, ask children what kinds of foods would be available in winter, and what foods might be harder to find. Talk about if and how seasons vary in your area, and how that might affect food availability for birds. NGSS K-LS1-1
- Brainstorm with children how to create a bird feeder they can hang in the schoolyard or at home. If time permits, provide materials and enact student ideas.
 NGSS K-2-ETS1-1

Grades 2-3

- After closely observing birds at feeders or on nature walks, ask children to describe the parts of a bird. As children name different parts (for example, beak, head, wings, feathers), draw a generic bird on a piece of chart paper and fill in the parts. Compare and contrast birds to people or to another wild or domestic animal you have recently studied. NGSS 2-LS4-1
- Ask children to look at examples of bird beaks in Bird Count or other reference materials. Ask: Why do you think birds have different shaped beaks? Explain that beaks on birds, like teeth in mammals, are related to the type of foods they eat. Present children with a variety of implements simulating the mechanisms of different bird beaks. Pair five mechanisms with pictures of the corresponding kind of bird and its food. Invite children to use the implements to "feed" like different kinds of birds, providing materials that imitate food. Some examples are:
 - o Hawk (scissors)—prey (packing peanuts)
 - o Mallard (slotted spoons)—duckweed (small plastic beads in a basin of water)
 - o Hummingbird (pipettes)—nectar (clear plastic cup of colored water)
 - o Heron (toothpicks)—fish (raisins)
 - Chickadee (tweezers)—seeds (sunflower or other seeds) NGSS K-2-ETS1-2

All Grades

Provide field guides and bird identification charts or cards near feeders or take students on nature walks. Encourage children to identify birds they remember from *Bird Count*, as well as different birds you might see in your area. Keep a "life list"—a list of every bird you identify—for your class.

MATH Grades K-1

• Review the method Ava used to tally birds in *Bird Count*. As a group, identify objects in the classroom, such as tables, chairs, bulletin boards, or even students, and count them using this tally system. As you count, invite children to come up to the board or chart, and each make a mark to represent a tally.

When you get to the fifth mark, show children how to make the cross hatch for a bundle of five. When you get several bundles of five, count by fives with children to find the total.

CCSS.MATH.CONTENT.K.CC.B.4.A

 Create and laminate a simple chart with the names and pictures of birds in your area. Go over the bird species with children and provide washable markers for children to tally the birds they see. Keep the chart near a window feeder or take it on nature walks. CCSS.MATH.CONTENT.K.MD.B.3

Grades 2-3

- Hold a class bird count by having children create their own tally sheets and collect data with their families
 - Brainstorm with children the birds they see in their area and make a list. Fill in common species children may have missed.
 - o Provide paper, colored pencils, or fine-tipped markers, or cut-out bird images from old field guides, calendars, or magazines. Have children create their own bird charts with the names and images of common birds. Laminate the charts and ask children to tally the birds they see with their families over a week. (Send home a note or email families in advance to encourage participation.) Tell children that each of their families represents a team like Ava's team in *Bird Count*.
 - o When the class "count" is finished, combine team tallies to make a master list. Explain that this is the process used in the Christmas Bird Count to total all of the birds seen in a "Circle." Have children analyze their data by asking the questions:
 - a) Which bird did our Circle see the most?
 - b) Which bird did we see the least?
 - c) Were there any birds on your charts that you didn't see?
 - d) Were there any birds that weren't on your charts that you had to add?

CCSS.MATH.CONTENT.2.NBT.B.6

• Extend the activity to create a bar chart with bird species on the X axis, and number of each

species seen on the Y axis. Ask children to analyze the data again, and compare the experience. CCSS.MATH.CONTENT.2.MD.D.10

LANGUAGE AND LITERACY Grades K-1

Have children name as many birds from the book as they can remember. Have them recall and practice some simple bird calls from the book (great-horned owl, chickadee, catbird, robin, mourning dove, crow, raven). Add to their repertoire any other calls familiar to you. For example, the song of the American goldfinch is often expressed as "potato chip, potato chip," and the tufted titmouse as "peter, peter, peter." (For further reference, find a website that lists common mnemonics, such as the Fernbank Science Center in Atlanta, Georgia at http://www.fernbank.edu/Birding/mnemonics.htm.

CCSS.ELA-LITERACY.SL.1.2, CCSS.ELA-LITERACY.SL.1.3

 Have children learn the song, "Bluebird, Bluebird Fly Through My Window."

> Bluebird, Bluebird Fly Through My Window Bluebird, Bluebird Fly Through My Window Bluebird, Bluebird Fly Through My Window Oh, Birdie, fly away!

Starting with a Bluebird, use plush facsimiles of native birds to reinforce children's identification of a few local species. Before each round of the song, call on a student volunteer or volunteers to select a bird. Name it as a class and teach children a mnemonic for the bird's song. In the song, replace the word, "Bluebird," with whatever plush bird was chosen. Then have children join hands in a circle and lift their joined arms to allow classmate volunteers to fly in and out of the "windows" formed by their raised arms. CCSS.ELA-LITERACY.L.K.5.C

Grades 2-3

Combine identifying birds in the field with a writing activity.

 Take a nature walk through at least three different habitats. This could be done as a field trip, or in and around school grounds. The habitats could include sports fields, gardens, parking lots, sidewalks, courtyards, or parks. Have students share what they see and hear and journal about it as you walk. Allow time to stop and elicit student observations in each habitat. Ask the following questions and record the answers:

- o How would you describe this habitat? Use your five senses.
- o What birds do you see? How many of each?
- o What birds do you hear? How many of each?
- o What things surprised you?
- When you return to the classroom, have children write a collaborative story about your class bird count. Have each student create one page or spread for the story, using a combination of illustrations and text. Create front and back covers and a title page. Then laminate the pages and assemble the book to add to the classroom library. CCSS.ELA-LITERACY.SL.3.4, CCSS.ELA-LITERACY.W.3.3

ART

Grades K-1

Provide students with real bird feathers to use as paint brushes or incorporate into their paintings. Explain the parts of the feather—quill, vane, and barbs—and the function feathers serve. Then encourage students to use the feathers to make a variety of marks to create bird-inspired images. **NGSS 1-LS1-2**

Grades 2-3

Present a variety of illustration styles to emphasize to children that artists have different ways of presenting their subjects. Compare Stephanie Fizer Coleman's drawings of birds in *Bird Count* to more realistic pictures of birds in *A Place for Birds* by Melissa Stewart and illustrated by Higgins Bond or the bold illustrations in *Bring on the Birds* by Susan Stockdale. Provide children with a variety of media, such as cut paper, colored pencils, paint, feathers, or natural materials and encourage them to explore their own vision to make bird art. Display a variety of bird images for inspiration as they work. CCSS.ELA-LITERACY.RI.K.9, CCSS.ELA-LITERACY.RI.K.9, CCSS.ELA-LITERACY.RI.K.9.

GEOGRAPHY Grades K-1

• Introduce the idea that Ava and her team followed a route through their town that took them through a

- variety of habitats. Review the different habitats in the book and try recreating Ava's route on a large piece of construction paper.
- Map a route through your own school or neighborhood. Brainstorm with children to identify and locate local landmarks. Create a map for your classroom of the route children take to various locations in or around school. CCSS.ELA-LITERACY.RI.1.7, NSGS 2-LS4-1

Grades 2-3

Locate on a map a region where *Bird Count* might take place. Find your own town on the same map and compare. Ask children to imagine that they were going on a bird count similar to Ava's. What habitats would they go to that would be different from those in the book? Which would be similar? Have children create a map that shows a possible route for a bird count they might conduct, showing habitats and landmarks.

CCSS.ELA-LITERACY.W.3.7

ADDITIONAL RESOURCES

- All About Birds. Cornell Lab of Ornithology website. https://www.allaboutbirds.org/
- Cate, Annette Leblanc. Look Up! Bird-Watching in Your Own Backyard. Somerville, MA. Candlewick, 2013.
- Collard, Sneed B. Beaks. Watertown, MA Charlesbridge, 2002.
- Sibley, David Allen. The National Audubon Society Sibley Guide to Birds, 2nd edition. New York, NY. Knopf, 2014.
- Sill, Cathryn. About Birds: A Guide for Children. Atlanta, GA. Peachtree Publishing Company, 2013.
- Stemple, Heidi, illustrated by Clover Robin. Counting Birds: The Idea That Helped Save Our Feathered Friends. Mission Viejo, CA. Seagrass Press, 2018.
- Stewart, Melissa, illustrated by Sarah Brannen. Feathers: Not Just for Flying. Watertown, MA. Charlesbridge, 2014.

THE ACTIVITIES IN THIS GUIDE DIRECTLY ADDRESS THE FOLLOWING STANDARDS

COMMON CORE FOR ENGLISH LANGUAGE ARTS STANDARDS

- Reading Informational Text #1, 2, and 3: Identifying Key Ideas and Details
- Reading Informational Text #4, 5, and 6: Craft and Structure
- Reading Informational Text #6, 7 and 9: Integration of Knowledge and Ideas
- Reading Literature #5: Craft and Structure
- Writing #3: Text Types and Purposes
- Writing #7: Research to Build and Present Knowledge
- Foundation Skills #1B: Print Concepts
- Speaking and Listening #1B, 2, and 3: Comprehension and Collaboration
- Speaking and Listening #4: Presentation of Knowledge and Ideas
- Language #5c: Vocabulary Acquisition and Use

COMMON CORE FOR MATH STANDARDS

- Counting and Cardinality B.4
- Measurement and Data B.3, D10
- Numbers and Operation in Base Ten: B6

NEXT GENERATION SCIENCE STANDARDS PERFORMANCE EXPECTATIONS

- **K-LS1-1**: Use observations to describe patterns of what plants and animals (including humans) need to survive.
- 1-LS1-2: Read texts and use media to determine patterns in behavior of parents and offspring that help offspring survive.
- **2-LS4-1:** Make observations of plants and animals to compare the diversity of life in different habitats.
- **K-2-ETS1-1.** Ask questions, make observations, and gather information about a situation people want to change to define a simple problem that can be solved through the development of a new or improved object or tool.
- **K-2-ETS1-2:** Develop a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem.

REVIEWS

"Clever design... Count guidelines are smoothly worked into Richmond's narrative... An engaging, informative introduction." —*Kirkus Reviews*

"This charming and handsomely illustrated story about a young person's participation in a Christmas Bird Count is accurate in detail, and it wonderfully captures a child's enthusiasm."

—Wayne R. Petersen, Director of Massachusetts Important Bird Area (IBA) Program

"Great book on citizen scientists. A must read and should be in all public and elementary school libraries."

—Terry Young, retired librarian and judge for the AAAS/Subaru Science Books & Films Prize for Excellence in Science Books

ABOUT THE AUTHOR

Susan Edwards Richmond teaches preschool on a farm and wildlife sanctuary in eastern Massachusetts. She earned her MA in creative writing from the University of California, Davis, and is the author of five collections of nature-based poetry for adults. She is happiest exploring natural habitats with her husband and two daughters, and learns the native birds wherever she travels. *Bird Count* is her first children's picture book.

www.susanedwardsrichmond.com

ABOUT THE ILLUSTRATOR

Stephanie Fizer Coleman is an illustrator with a penchant for playful color and rich texture. Having grown up in a rural area surrounded by nature, it's no surprise that furry and feathered creatures are her favorite subjects to draw. When she's not drawing, Steph can be found sipping tea and reading books. She lives in West Virginia with her husband and two dogs.

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Teacher's Guide prepared by Susan Edwards Richmond

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