Teacher Resources for NC Bird Count

How You & Your Students Can Participate

Visit the NC Bird Count webpage at https://scienceacrossnc.org/events/birds/ to learn how you and your students can participate.

Science NCSCOS and Science Essential Standards Correlations

Elementary School

- **K.L.1,** K.L.1.1, K.L.1.2
- **1.L.1,** 1.L.1.1, 1.L.1.3, **1.L.2,** 1.L.2.2
- **2.L.1,** 2.L.1.1, 2.L.1.2, **2.L.2,** 2.L.2.1, 2.L.2.2
- **3.L.1,** 3.L.1.1, 3.L.1.2, **3.L.2,** 3.L.2.1, 3.L.2.2
- **4.L.1,** 4.L.1.1, 4.L.1.2, 4.L.1.3, 4.L.1.4
- **5.L.2,** 5.L.2.1, 5.L.2.2, 5.L.2.3, **5.L.3,** 5.L.3.1, 5.L.3.2

Middle School

- **6.L.2,** 6.L.2.1, 6.L.2.3
- **7.L.2,** 7.L.2.1, 7.L.2.3
- **8.L.3,** 8.L.3.1, 8.L.3.2, 8.L.3.3

Northern cardinal and eastern bluebird, both males. Photo Credit: Mike Dunn, NCBG

High School

- Bio. 2.1, Bio.2.1.1, Bio.2.1.2, Bio.2.1.3, Bio.2.1.4, Bio.2.2, Bio.2.2.1, Bio.2.2.2
- APES: ERT-1.A, ENG-1.B, ENG-1.D, ERT-2.A, ERT-2.B, ERT-2.C, ERT-2.F, ERT-2.G, ERT-2.H, ERT-3.A, ERT-3.F, EIN-4.A, EIN-4.B, EIN-4.C

Lesson Ideas & Tips

Brown-headed nuthatch. Photo Credit: Mike Dunn, NCBG

- Compare data, such as number of birds, number of species, or number of each species, among students in your class.
- Compare your students' data with other data on eBird.
- Compare data across more than one location at school. Discuss why the numbers might be different.
- Use nature journaling prompts, such as draw and describe one bird you saw.
- Incorporate cross-curricular lesson opportunities. For example, assignments that include writing or speaking may include language arts standards and looking at data may incorporate math standards.

Lesson Ideas Correlated to Standards

Elementary School

K.L.1.1: Use pictures of birds or observe birds outside to discuss the physical differences between bird species. Use this discussion to then collect your bird watching data.

1.L.1.3: After watching birds, discuss how people improve habitat for birds, such as by adding birdhouses or growing native plants in their yard or community.

2.L.1 & 2.L.2: Explore the lifecycle of a bird. Compare pictures of birds of the same species at different stages and discuss how their size and feathers change. Then have students observe birds.

3.L.2.1 & 3.L.2.2: Observe birds. Have students turn and talk about how they saw birds interacting with plants. Observe birds again. Discuss as a class or have students write about how plants are important to birds (shelter, food, place to raise young, water) and how birds are important to plants (seed dispersal, pollination).

4.L.1.2: After completing the bird count, have students answer the question, "Describe 3 bird adaptations you observed."

5.L.2.3: As students are counting birds, have them pay attention to how the birds are interacting with their ecosystem. Then ask students to do a think, pair, share about the connections between the birds and their ecosystem. Have each student explain in writing the impacts of changing one thing in the ecosystem, such as cutting down a tree or installing a bird feeder.

Middle School

Pine warbler. Photo Credit: Mike Dunn, NCBG

6.L.2.1: After observing birds, have students write a story about a food chain or food web involving one of the birds.

7.L.2.3: After completing the bird count, have students observe the birds for evidence of inherited and learned behaviors. Then have students describe one inherited behavior and one learned behavior in birds.

8.L.3.1: After observing birds, have students list density-dependent factors affecting the birds living on your school grounds. Then have them label the factors as abiotic or biotic.

High School

Bio.2.1.2: Based on their observations, have students describe one behavioral adaptation and one structural adaptation.

APES ERT-3.A: While watching birds, have students pay attention to what the birds are eating. Divide the class in half. Have one half of the class research a bird species that is a generalist and the other half a bird that is a specialist. Have the students share their research in small groups with a mix of generalists and specialists. Have them discuss the advantages and disadvantages of each in their group and then present their findings to the class.

How to use with your class

- Create a bird watching station at a window allowing students to rotate through this station.
- Take your whole class outside to an area to watch birds.
- Have students work in pairs or small groups.
- For younger grades, enter the data as a class. For older students, create a group account or have students create accounts with their school email. Students 13 years old and older can create their own eBird accounts.
- If counting birds from a stationary position, eBird recommends reporting the highest number of individuals seen at one time during the observation period, as well as any clearly different individuals.

Red-bellied woodpecker.
Photo Credit: Mike Dunn, NCBG

Additional Resources

Great Backyard Bird Count – For Educators: https://www.birdcount.org/learn/educators/

Audubon for Kids: https://www.audubon.org/get-outside/activities/audubon-for-kids

Cornell Lab of Ornithology *For Future Scientists* Video Playlist:
https://www.youtube.com/playlist?list=PLgSpqOFj1Ta6UGjrger7b8Q_2V5POmzsk

Cornell Lab of Ornithology *eBird Essentials – Bird Academy* Video Playlist:
https://www.youtube.com/playlist?list=PLgSpqOFj1Ta4lgTH4LD2N5VeN8QLbuZ7F

Bird ID Guides

- Merlin Bird ID mobile app from Cornell Lab of Ornithology: https://merlin.allaboutbirds.org/
- Audubon Bird Guide mobile app: https://www.audubon.org/app
- Cornell Lab of Ornithology All About Birds Online Guide: https://www.allaboutbirds.org/guide/
- Audubon Online Bird Guide: https://www.audubon.org/bird-guide