A 5-day science adventure for kids



Explore, read, play, invent, build and learn all about birds and birding in your community



Brought to you by Reading Rockets, with support from the Park Foundation

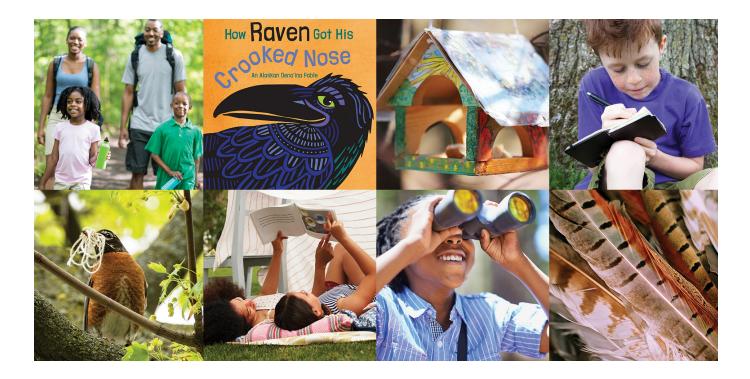




A book-based adventure about birds and birding

Contents

Welcome to Bird Buddies Planning the daily Bird Walk, Observation Stations	1
Day 1: Bird beginnings Flying Dinosaurs, Fantastic Feathers, My Bird Journal	13
Day 2: Habitats, food, and foraging Eating at Home, Eating Out, Hunting Prey	33
Day 3: Bird brains Caching In, Experimental Learning	61
Day 4: The social life of birds Bird Songs, Bird Dancing, Nest Building	74
Day 5: Birds and human Litter Walk, Building a Watershed, Bird Detective	91
APPENDIX	
Best of the birds	110
Bird words	111
Printable templates (name tags, nature journal cover, certificate)	115
Reading Rockets tip sheets	117



Welcome to Bird Buddies

The best way to get kids learning is to build on their curiosity and interests. The Bird Buddies program is kid-centered with an emphasis on inquiry and creativity.

We've designed the program to be user-friendly and adaptable. Use the materials each day for five days in a row, or once a week, for five weeks, (or any other way you like) to add hands-on learning to your summer programming.

- Day 1: Bird beginnings
- Day 2: Habitats, food, and foraging
- Day 3: Bird brains
- Day 4: The social life of birds
- Day 5: Birds and humans

Getting yourself ready

- Each day has an emphasis on one or more topics related to birds. You'll find an introdution to the concepts covered and recommended books for each day, as well as a list of questions to guide explorations and activities, and a list of **Bird Words** that kids might not be familiar with.
- Start by gathering books from your library using the booklists here in the toolkit.
- Choose both fiction and nonfiction books from the lists provided.
- Read them through before you read them to the kids, so you know what happens and can spot any unfamiliar words or concepts you'll need to explain. Also, look for places to ask questions while you're reading to engage listeners.



- Think about which other parts of the program you'd like to do after reading the books. An activity is always a good idea, and you may also want to include writing, exploring related websites, videos and apps, and heading outside, too.
- Familiarize yourself with local birds and places nearby to go to find them. You can check with your local Audubon chapter, a community nature center, or visit Cornell University's eBird website.

https://www.audubon.org/about/audubon-near-you https://ebird.org/explore



For tips on reading aloud and sharing nonfiction books with kids, see pages 117-123 in the Appendix.

Learning with the kids

- Introduce the theme for the day and ask kids what they know about it. (See "Activating background knowledge" on the next page.)
- Read one or more of the books aloud and ask questions. Listen carefully to the kids' answers. By reading to them and asking questions, you'll get them thinking about the

topic, and what they want to learn. You'll also increase their understanding and excitement. Read another book and repeat.

- **Choose a hands-on activity** to let kids explore theme. By doing an activity, the kids get to use the concepts and new words they have learned.
- Look for a local connection. How can you connect the ideas in the books or the activities with the kids' personal experience? Think about bird walks, visiting a nature center or park, or watching birds visiting a feeder.
- Keep asking questions and listening carefully to the children's answers.
- Encourage kids to write about what they are learning or curious about by using one of the writing prompts in this toolkit, and by keeping a **Bird Journal** for observations, drawings, questions, and creative writing activities.
- Provide access to books about the topic for kids to look at on their own.
- Share digital media with kids (websites, apps, videos, and podcasts) that they can use to learn more about the topic and give kids time to try them out.
- Take a field trip to one of the recommended locations to further explore your topic for the day or theme for the week. Activities for each day will include a **Bird Walk** with special attention to different aspects about birds and their lives.

You can choose any of the activities in this toolkit, all of them, or just one or two, but we recommend that you **always Start With a Book**.



Review and teach new words

When you are pre-reading your books or looking at activities, websites, apps, or field trips, look out for words kids might not know. Take time to talk about those words and tell kids what they mean. You can provide images, video, and real objects to help them build an

understanding of unfamiliar words. You can even act words out! You can do this before you read, before you do an activity, or while you are reading or trying a hands-on activity.

If words or concepts are being repeated, ask kids if they remember what they mean and how they might be used the same way or differently in this new context.

Activating background knowledge

Ask kids what they know about birds as you begin this program.

- What characteristics do birds have in common?
- How are birds different from each other?
- How are birds similar and different from people?
- How are birds useful to people?
- What do you wonder about birds e.g. how they can fly?



Connecting the days and concepts

Children will learn more readily and remember more if you review all five days of materials in advance and decide which books and activities you want to use. Connecting the ideas and activities day to day will help them create a big picture.

At the beginning of the day, ask them, "What did we talk about yesterday?" Then tie their answers to the focus for the day.

You may choose to use all the days or you may select specific days for your program. You may select different activities; however, the **daily Bird Walk** is critical in helping children connect ideas with their everyday environment.

Setting up an **Observation Station** — a spot where kids can find field guides and binoculars and enjoy observing bird behavior from a window — will provide opportunities to practice identification and reflect on their observations as well as help build compassion and interest in nature.

Ultimately, children will develop a deeper understanding if they connect the different ideas from each day.

Planning the daily Bird Walk



You never know quite what you are going to find on a Bird Walk. Hopefully, you will see some birds! But the Bird Walk is just as much an opportunity to encourage exploration and a chance for kids to discover nature.

Bird watching is often about being patient and waiting for the birds to show themselves.

While kids wait and watch for birds, there's much to observe. The highlight of the walk may not even be a bird, but an interesting rock formation, a flitting dragonfly, or a burst cattail.

To fire up kids' powers of observation before the walk, talk about where you'll be walking and what kinds of birds are often found there. Encourage kids to choose a bird or birds they really want to see. Let them take a look at the bird in a field guide and read up on its habits and habitat. As different species have specific patterns of when they like to be active during the day, if possible, you may want to align the time you take your Bird Walk with when birds of interest are out and about.

In taking a daily Bird Walk, you can plan to visit a wide variety of habitat types or visit the same spot each day. There are benefits to each approach. One will give kids the chance to see more varieties of bird species and learn more about their relationship with their associated habitats. The other lets kids get to know the "regulars" and their behaviors, helping them better be able to notice when something unusual comes along.

What you'll need for daily Bird Walks:

- A place to walk and look for birds
- Field guide
- Bird Journal or notebook and pencil
- Binoculars (optional)
- Water, sunscreen, and first-aid items (optional)



Finding locations for your Bird Walks

You don't need to go far. Some of the best birdwatching can be in your own backyard! Birds can be seen on city and suburban streets as well as in parks, yards, and nature preserves. If you can, walk in areas near water, where more easy-to-spot birds are usually found.

You may also check with your local bird clubs, Audubon chapters, Black birder groups, and other local nature organizations to find out where to go to find birds in your community. These groups frequently lead nature walks and can direct you to good spots and answer your questions.

Get more information here:

Bird Club Finder https://www.birdwatchersdigest.com/bwdsite/connect/birdclubs/clubfinder.php

Audubon Chapters Near You https://www.audubon.org/about/audubon-near-you

Outdoor Afro: Where Black People and Nature Meet https://outdoorafro.com/_____

Black Birders Week (usually the first week in June). Follow this group on Twitter: https://twitter.com/hashtag/blackbirdersweek

eBird can also help you discover the best places for birding action near you. Visit <u>https://ebird.org/explore</u>, then choose "Explore Regions" and type in the name of the county where you will be holding your bird walks. Scroll down to find "Top hotspots" on the right side of the page. When accessing a hotspot to visit, check out "Recent visits" on the page to get a good idea of what birds are currently being seen at that location. You can also use eBird to search for species and then see on a map where that species can be found locally.



Binoculars

Binoculars really help when you're watching birds from a distance or want to get a closer view for identification.

However, binoculars are expensive and many families and youth programs cannot afford to buy a pair. Some local bird clubs, local Master Naturalist chapters, or Audubon chapters may be able to lend you binoculars or have grants available to help you purchase kid-friendly binoculars for student groups.

Bird Club Finder https://www.birdwatchersdigest.com/bwdsite/connect/birdclubs/clubfinder.php

Directory of Local Naturalist Chapters (ANROSP) https://anrosp.wildapricot.org/directory

Audubon Chapters Near You https://www.audubon.org/about/audubon-near-you

If kids do have binoculars, be sure to demonstrate how to use them. Most kids will likely not have experience with or know how to use binoculars properly — which end to look in, how to adjust them for their own eyes, how to use the focus knob in the center — and, most importantly, to always keep the bird in view as you bring the binoculars to your eyes.

If you don't have binoculars for everyone, help kids focus on making the most of what they do have — their eyes and ears. Moving quietly, frequently holding still, and looking for the movements of birds and other animals will increase their chance of seeing birds during a Bird Walk.

Plan to have kids stop, sit or stand, and listen for bird sounds periodically during the walk and see if they can find where the birdsong is coming from. Birds are often easier to hear than see.

Cardboard tube binoculars don't offer any magnification, but can help kids focus their attention. To make these "binoculars" lay two empty toilet paper tubes next to each other, then tape them together. Then use tape to secure a length of yarn or string to the sides. Other items from the recycling bin work too:



How to Make Binoculars for Kids with Recycled Items https://www.parksconservancy.org/stories/how-make-binoculars-kids-recycled-items

You can also try this: don't tape the tubes together, which provides flexibility for faces of all sizes. Separated tubes can also be used to help ears focus hearing.

Before you walk

- Set expectations. Explain to kids that they may not always see a wide variety of birds but there will be more opportunities for Bird Walks and a chance to look for birds anytime they go outside.
- **Talk about what an observation is and how to make them.** Kids have sharp observation skills and natural abilities to use their senses. Model the behavior you expect to see as you encourage them to focus attention on their surroundings, slow down, and use their senses of hearing and sight and be curious about what they see and hear.
- **Provide directions on how to take notes or set up Bird Journals with an observation chart** that helps kids make notes about the birds they see. Notes can include the following: size (e.g., small, medium, large); color(s) of birds, noting the different colors and the location of the colors (e.g. ,blue head, red breast, etc.); any unusual feature (e.g., really long beak, very short tail); where the bird was seen (in a tree, flying over, in the water, etc.); and how many birds of this type they saw together.

Bird Walk etiquette

Kids get excited when they see something unusual. Spotting a bird or animal or observing its behavior is exciting and they will want others to share in their excitement. Sharing their sightings quietly will increase the chance that others get to see them too. Let kids know that loud noises are stressful to wildlife and make it hard for others to hear birds.

If your Bird Walks take you to a wildlife area, kids also need to know that it is important to stay on trails to avoid causing damage to the land, plants, and trees. Kids also need to leave rocks, plants, flowers, feathers, and other objects of interest as they find them and give others the chance to make the same exciting discoveries. Have kids make use of a journal or take a photograph to enjoy their finds. An adult can take the photographs if kids don't have access to a camera.

A Bird Walk is a slow-paced activity that may be very different from kids' other experiences outdoors. Set this expectation ahead of time and tell kids, "We are going to walk slowly and make many stops to listen, look, and observe." They may need to stay still for a while, alert for sound and motion, in order to see birds. But even if they are only casually taking note of their surroundings, the more they pay attention to birds, the more kids will notice them wherever they are.

After the Bird Walk

When you return from your Bird Walk, be sure to make time for kids to review and reflect on what they saw. Encourage them to compare any notes they took and refer to field guides to review what they have seen. Have them add any new details they learn, questions they have, or drawings they want to make to their journals.

As part of your discussion, you can have kids select a "bird of the day" after each bird walk and give them space to create their own Bird Wall of Fame with images, drawings, and fun facts about the favorite birds they've seen.

You can also gather Bird Buddies together to create a group chart to list all the birds they saw and number of birds of each species. You may want to set up a group Bird Buddies identity on eBird and send your sightings to it. Just create a free Cornell Lab account, which works across Cornell Lab projects including eBird, Merlin Bird ID, Bird Academy, Project Feederwatch, and the Great Backyard Bird Count.

Create a Cornell Lab Account https://secure.birds.cornell.edu/cassso/account/create

When you submit bird observations, talk with your Bird Buddies about how and why their contributions are valuable for scientists and conservationists around the world to learn more about the populations, distributions, and breeding activities of birds.

Observation Station

Fine tune kids' attention to the natural world when you set up an indoor bird-watching station near a window for your Bird Buddies. Choose a window where kids will have the most opportunities to observe what's happening outside. Have a basket with field guides and binoculars and comfy places to sit, watch, read, and write or draw in their Bird Journals. Add posters or images of birds common to your area to help Bird Buddies identify the birds they see.



Kids will see more birds outside the window if you attract them to the spot. Birds will flock to native plants and flowers in summer, but also to feeders. And hummingbirds always welcome nectar in feeders to help fuel their high metabolism.

Safe bird feeding in the summer:

- Fill feeders halfway and refill frequently to keep seeds from getting moldy in hot, humid summer weather. Don't use suet in the summer as it can become rancid in the heat.
- Move feeders occasionally and don't allow bird droppings and seed waste to build up in one area.
- Clean feeders regularly with hot water and soap or diluted bleach.
- If you live in a location where bears are active, it's best to not have a bird feeder in the summer.

Birds need water too! You can purchase a bird bath or use shallow pans or dishes. Birds are happy with baths that are at ground level, but raised baths will attract birds too. Change the water every day to keep it fresh and clean.

Kids can help set up the Observation Station, feeders, and bird bath. Keep a duty roster at the station and assign Bird Buddies to keeping food and water fresh and plentiful for feathered friends outside the window. Make sure that kids get the opportunity to use the Observation Station and reflect on and talk about what they've seen.

Resources for your Observation Station

- About Birds: A Guide for Children by Cathryn Sill (Ages 6-9)
- Birds, Nests & Eggs (Take Along Guides) by Mel Boring (Ages 6-9)
- *National Geographic Kids' Bird Guide of North America* by Jonathan Alderfer (Ages 6-9)
- Peterson Field Guide for Young Naturalists: Backyard Birds by Karen Stray Nolting and Jonathan Latimer (Ages 9 -12)
- Peterson Field Guide for Young Naturalists: Songbirds by Karen Stray Nolting and Jonathan Latimer (Ages 9 -12)
- The Sibley Guide to Birds by David Allen Sibley (All ages)
- Stokes: Beginner's Guide to Birds Eastern Region by Donald and Lillian Stokes (Ages 9-12)
- Stokes: Beginner's Guide to Birds Western Region by Donald and Lillian Stokes (Ages 9-12)
- The Young Birder's Guide to Birds of North America by Bill Thompson III (Ages 9-12)

Download Common Feeder Birds Poster (Feederwatch)

https://feederwatch.org/learn/identifying-birds/#download-feederwatch-posters

Dancing with Birds Posters [in English and Spanish] http://birdday.org/birdday/free-materials?id=176

Why Do Birds Migrate poster (Audubon Adventures) http://www.audubonadventures.org/docs/AA_Migration_poster_final.pdf

Window Bird Feeder (The Cornell Lab) https://store.birds.cornell.edu/products/pennington-feeders-for-teachers

Make Your Own Bird Feeder (National Geographic Kids) https://kids.nationalgeographic.com/nature/article/make-a-bird-feeder

Hummingbird Nectar Recipe (Smithsonian National Zoo) https://nationalzoo.si.edu/migratory-birds/hummingbird-nectar-recipe

How to Make a Birdbath (Audubon) https://www.audubon.org/news/how-make-birdbath

Resources on types of feeders, types of food, and recommendations for keeping things clean (The Cornell Lab) https://www.allaboutbirds.org/news/browse/topic/feeding-birds/



Acknowledgements

Thank you to the following for their expert review of the Bird Buddies toolkit.

Jane Matthews, 30+ year veteran early childhood educator, and education facilitator for the Idaho Fish and Game Project WILD and the Idaho Forest Products Commission Project Learning Tree, and a docent for the Peregrine Fund's World Center for Birds of Prey.

Maddie Koenig and Ken Rosenthal, Park Naturalists at the Gulf Branch Nature Center, Arlington County (Virginia) Department of Parks and Recreation.

The development of the Bird Buddies toolkit was made possible by a generous grant from the Park Foundation.

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