



Birds

Bringing nature closer

by Theresa M. Sull

When children grow up, they will be responsible for protecting our natural world and the wildlife we value. While children are young, teachers have the awesome opportunity of instilling a lifelong interest in nature.

We can foster this interest by taking children on a field trip to an arboretum, aviary, botanical garden, farm, or zoo. But we might provide even richer educational experiences by inviting wild things to visit the children.

Our schoolyards may already have a number of wild visitors—insects, spiders, frogs, lizards, raccoons, and possum, perhaps. But of all wild creatures, birds may be the most accessible. Children can watch them through a classroom window.

Bird-watching indoors is simple and practical. Young children have not yet developed the stamina or patience for long birding walks. Binoculars are not necessary for preschoolers because they cannot yet adequately focus the lenses. And the goal is not sighting a rare bird but rather learning about birds in general.

Bird-watching can build skills

Bird-watching and related activities can help children develop a number of important skills:

Gross-motor skills. Children can build muscles in their arms and legs by taking short nature walks around the block or in a local park. They can imitate birds of prey in flight while running around the play yard with arms

spread. They can pretend to be cardinals in undulating flight while swooping down a slide. Playing circle games like “Bluebird, Bluebird, In and Out My Window” also requires coordination of the large muscles.

Fine-motor control. Children can develop control in their finger muscles through art activities such as drawing or painting pictures of birds. Children can cut out silhouettes of birds to hang on the bulletin board or from a mobile. They can cut pictures of birds out of old magazines and paste them on stiff paper or cardboard to create collages. Small collages make great note cards to send to families.

Cognitive skills. Children can enhance thinking skills by learning to identify birds by shape and

Roadside silhouettes



Mourning Dove



House Sparrow



Blue Jay



Grackle



Mockingbird



color. They can practice paying attention to detail by learning to identify differences in types of birds and even individual birds. I recognize a particular cardinal in my yard by his one white tail feather!

As children listen to you reading stories, they enhance their language skills. They can dictate their observations of real birds to you while you write down what they say. Or they can compose poems and stories about imaginary birds.

Graphing the number of birds sighted is a math activity. Finding out what different birds eat, and that birds take baths in dust as well as water, is science learning.

Social skills. Taking responsibility for feeding birds is a social skill, especially when the chore is shared with classmates. Children in small groups who observe and identify birds practice social skills like taking turns, negotiation, and oral communication.

Prepare for bird-watching

Bird-watchers observe different species in different parts of the country. The birds that feed outside my window in North Carolina include bluebirds, cardinals, black-capped chickadees, brown-headed cowbirds, goldfinches and house finches, juncos, nuthatches, chipping sparrows, white-throated sparrows, titmice, yellow-rumped warblers, and Carolina wrens.

Won't the children get excited when they can identify some of these visitors?

On the grass under my feeders, I see crows, speckled flickers, shiny black grackles, mockingbirds, mourning doves, blue jays, brown thrashers, starlings, and robins. These birds and others will peck at stray seeds or look for bugs on the ground. The most colorful visitors to my feeders include indigo buntings, rose-breasted grosbeaks, red-bellied woodpeckers, and the dramatically black-and-white striped, downy woodpeckers.

True, I have an ideal backyard for bird-watching. It consists of a lawn of mowed weeds bordered with trees and shrubs and speckled with wild flowers in season. It's located on the narrow, shallow Eno River. But wild birds began to flock to my yard only after I set up appropriate feeding stations.

You can invite local birds to visit by setting up feeders. To learn more, use resources like those listed at the end of this article.

Prepare feeders

Plan where you will place bird feeders. Hang feeders where you can see them from a classroom window or a glass door. Avoid well-traveled walkways or popular playgrounds. Birds can be messy, and we don't want children playing in bird droppings. You can hang feeders outside windows using metal arms sold for that purpose.

Making bird feeders

Children can make bird feeders from a variety of household and recycled materials. These feeders won't last long, but they do provide hands-on learning for children.

Encourage children to be creative and design their own.

Egg carton feeder. Cut the top off a plastic egg carton. Wash the bottom with warm water and let it dry. Loop a piece of wire or string around each end of the carton. Tie the loops to the bottom of a coat hanger. Fill the egg holes with different kinds of seeds. Which do the birds like best?

Milk carton feeder. Wash the inside of a half-gallon milk carton and let dry. Cut out a window, about 3 inches wide by 4 inches high, in opposite sides of the carton. Make sure the windows are at least an inch from the bottom. Close the spout of the carton and staple the top shut. Use a screwdriver to poke a hole through the top. Loop a piece of string or wire through the hole. Pour seed in the bottom of the carton.

Pine cone feeder. Tie a string or wire to the top of a pine cone. Spread peanut butter over the sides. Roll the cone in seeds. Or press a doughy feed mixture (see recipe on page 39) all over the cone.


Shore and water silhouettes



Great Blue Heron



Mottled Duck



Cormorant

Comfortable seating that faces the window will encourage children to relax indoors while they wait for their avian visitors. Be cautious about placement of shelves, bookcases, or other furniture. Children may try to climb to get a better look at the birds, and we want to keep children safe.

Discourage the children from tapping on the windows to get birds' attention. The wild creatures can be frightened away from feeders by loud noises. That's why bird-watching is a great way for children to practice patience and quiet. Children's calm behavior can be richly rewarded by glimpses of colorful birds.

Choosing a feeder

Check out types of feeders at a garden supply store or discount store, or in a bird-watchers' catalog. Or have children make their own feeders.

A tray feeder is a raised, flat surface that holds bits of fruit, nuts, or bread. It can be mounted on a post or deck railing. Unless it has a roof, however, it offers no protection from rain. And it can quickly become soiled from bird droppings.

A hopper is a "house" with bottom, roof and walls. It can be mounted on a post or hung from a tree branch. Dowels on either side allow birds to perch while feeding. While this type protects seed from weather, the seed can get moldy if not changed often.

A window feeder is usually made of clear plastic and attaches

to a window by suction cups. It allows close-up views of birds. But because the birds stand on the food while feeding, the food can become soiled.

Tubular, clear-plastic feeders have several advantages: It's easy to determine the level of seed before refilling. Several birds can feast at once on separate perches. A squirrel baffle can help prevent those hungry acrobats from gobbling up the seed. The feeders can be lowered on pulleys to be easily refilled.

You might see more birds at your feeders if you add a bird-bath. Birds need water not only to drink but also to cool themselves in warm weather. You can use a concrete birdbath, but any shallow container or tray will do. Place it on a tree stump or table, and hold it in place by putting small rocks or sand in the bottom.

Keep bird feeders and bird-baths clean so you don't contribute to the spread of parasites or mosquitoes. The children will probably remind you to feed the birds, and will even enjoy taking turns helping with these tasks.

What to feed birds

Birds will feed on a variety of foods. Black-oil sunflower seeds attract the greatest variety of birds. Dried corn kernels attract jays, pigeons, and doves; cracked corn is easier for smaller birds to eat. Safflower is a favorite of cardinals but more expensive. Thistle (also called "nyjer" or "niger") will attract finches but is

Bird feeding hygiene

- Wash your hands thoroughly after filling or cleaning feeders.
- Disinfect feeders by scrubbing with a weak bleach solution (1/4 cup of bleach to 2 gallons of warm water) every few weeks. Disinfect more often in summer or rainy periods. Rinse and allow feeders to dry before refilling.
- Move feeders when the ground beneath becomes covered with seed hulls and droppings.
- Store seed in a clean, dry, airtight container, such as a metal or plastic garbage can.
- If seed becomes moldy or infested with cobwebs, discard it.

expensive and often sold in special feeders.

Ask your cook—and parents—to save pumpkin, squash, and melon seeds. Rinse them in water, let dry, and run through a food processor. Some birds like these seeds even more than sunflower seeds.

You can try mixed birdseed that you buy at the supermarket. Be aware that it often contains a low proportion of sunflower seeds and lots of filler. Birds may pick out the sunflower seeds and scatter the rest, which can be wasteful or attract other critters like raccoons.



Black Bellied Plover

Herring Gull



Brown Pelican





You can also make your own: Mix 25 pounds of black-oil sunflower seed, 10 pounds of white proso millet, and 10 pounds of cracked corn. Store in a dry, airtight container.

Birds such as robins and mockingbirds will eat diced fresh fruit such as apple, melon, grapes, and orange. Birds also like raisins, but soften them first by soaking in water.

Woodpeckers, cardinals, and jays will feast on roasted peanuts, shelled or whole. Avoid peanuts with salt or sugar. If only raw peanuts are available, roast them at 350 degrees for 10 to 20 minutes. Try shelled walnuts and pecans and other nutmeats.

Bird feed does not have to cost a lot of money. Leftover bread and cheese crumbs, pastry and cake, fat, and even scraps like chicken bones can make a meal.

It can be educational to experiment with treats for the birds in your neighborhood but you're sure to attract squirrels, too. Luckily, squirrels can be fun and educational for children to watch, as long as the birds aren't kept away.

Expand to learning centers

Set up the science or discovery center with materials to help children learn about birds. *National Audubon Society First Field Guide: Birds* contains color photographs and easy-to-read descriptions of 50 common birds that beginners are most likely to see. Dover

How to identify birds

Talk with children about their experiences with birds. They may be familiar with pigeons and grackles in urban neighborhoods, ducks in parks, or pelicans and gulls at the beach. Introduce concepts they can understand and show interest in, based on their experiences and age.

Toddlers: Talk about what birds are and what they do. For example, birds are animals with feathers. Some live on the ground, and others live in trees. They build nests for homes. They eat insects, seeds, nuts, and fruit. They lay eggs, which can hatch into chicks.

As you observe birds on walks and in the schoolyard, point out common birds like pigeons and grackles. Encourage children to notice coloring, like the red of the male cardinal. Ask about body parts like wings that enable flight and beaks that birds use for eating.

Preschoolers: As birds visit your feeders, encourage children to notice shape, size, and coloring. Hummingbirds, for example, are tiny, have long beaks, and fast-beating wings that look like a blur. Blue jays, by contrast, are larger, have blue feathers above and white below, and have a crested head.

Show children how to use a beginners' field guide so they can identify birds by photos. Encourage children to compare different birds. How does a robin differ from a crow? How are they alike? Why does a woodpecker's beak differ from a sparrow's?

Encourage children to listen while birds sing. Can they distinguish between a mockingbird and a cardinal? Point out how birds fly: hummingbirds hover, crows fly in a straight line, and hawks soar in a circular motion.

Schoolagers: At this age, children can begin to identify categories of birds: owls, wrens, jays, and flycatchers, for example. They may also recognize a type of bird by its shape and posture. They can read a beginners' field guide and notice finer characteristics such as color and shape of a bird's crown, chin, throat, breast, abdomen, and primary and secondary feathers.

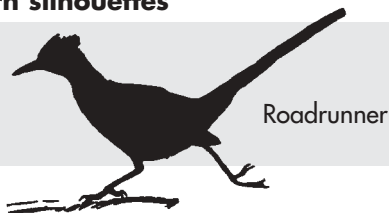
Help them understand the mechanics of flight—that is, how a bird's wing is curved on top and flat on the bottom. Because airflow is slower underneath, the air pressure is greater, pushing upward and creating lift as the wing passes through the air. Compare to an airplane wing.

Talk about where birds live and how they build nests. Find out why and how some birds migrate. Encourage children to keep a log or journal of birds they see at the feeders. Note the number and types of birds and the date.

Invite children to expand their knowledge beyond neighborhood birds. Introduce birds of prey like eagles and falcons and sea birds like pelicans and puffins. Introduce the word *ornithology*, which is the science dealing with birds.

Find out whether any birds in your area are declining. Discuss reasons such as the destruction of native habitat and pesticides. Invite a speaker from the local Audubon Society, birding group, or state park to talk about rare or unusual birds in your area.

Western silhouettes



Roadrunner



Scissor-tailed flycatcher



Turkey Vulture

Publications carries the *Favorite Birds* poster, the *Beginning Birdwatcher's Book*, and other resources.

An encyclopedia for children and magazines for bird-watchers are good publications for children's research or just for casually thumbing through. (See resources on page 39.)

The learning center will also make a handy spot for the abandoned birds' nests, feathers, and broken or unhatched eggs that children may find on nature walks. Add a magnifying glass, samples of birdseed, a diagram of bird parts, and silhouettes of common birds.

Note: If you decide to invest in binoculars for your classroom, look for a pair that is small, lightweight, rugged, and easy to focus, with a magnification power of about 4 X 30.

Bring nature closer with birds

Feeding stations can attract neighborhood birds to your play yard. Bird-watching promotes healthy development of both children and wildlife. You can support the natural world of the future by bringing nature closer to children.

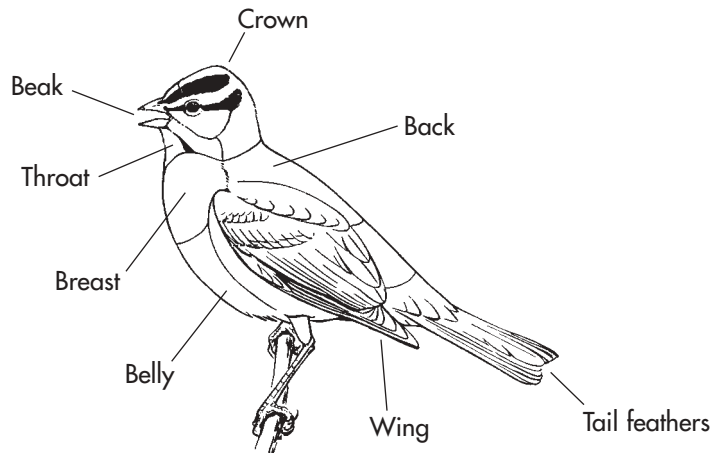
Feed hummingbirds too

Hummingbirds can be fascinating creatures to watch. Buy a hummingbird feeder with bee guards, made of plastic mesh, to keep bees and wasps away from the feeding port. Even better, buy a saucer-shaped feeder with ports in the top that the birds feed through. The nectar level is usually too low for insects to reach but is easily in range of the shortest hummingbird tongue.

You can make your own hummingbird feeder with a bottle, rubber cork, and the drinking tube from a hamster water bottle. The color red attracts hummingbirds, so paint the feeding port with red nail polish or tie red ribbons to the feeder.

Other tips:

- Wash hummingbird feeders thoroughly with hot, soapy water, and rinse completely, every time you refill them.
- If mold appears in a feeder, empty immediately and scrub it thoroughly.
- Make hummingbird nectar from water and ordinary white table sugar. Heat water in a saucepan and bring to a boil. (Or use distilled water.) For 2 cups of boiled water, add 1/2 cup sugar and stir. Let cool before filling.
- Use only white, granulated table sugar. No powdered or brown sugar, no honey or molasses, and no artificial sweeteners. Red food coloring is not necessary.
- If the feeder attracts insects, move the feeder or take it down for a couple of days. The insects may never find it in the new location, but the hummingbirds will quickly find it again.
- Don't use wasp killer or insecticides anywhere near hummingbird feeders—or other bird feeders.



Roadside silhouettes



Purple Martin



Cardinal



Pheasant



Hummingbird



Robin





Resources

Bird Watcher's Digest
(800) 879-2473
www.birdwatchersdigest.com

Cornell Lab of Ornithology
(800) 843-2473
www.birds.cornell.edu

Texas Parks and Wildlife
Department
(800) 792-1112
www.tpwd.state.tx.us
Note: Scroll down the home
page and click on "Texas Junior
Naturalists" and then on "Birds."

Children's books

Herkert, Barbara. 2001. *Birds in Your Backyard*. Nevada City, Calif.: Dawn Publications.
An introduction to backyard bird-watching, with color illustrations of a dozen common birds.

Kalman, Bobbie, ed. 1987. *Birds at My Feeder*. New York: Crabtree Publishing Co.
An introduction to feeding backyard birds, with descriptions and color paintings of 14 common birds. It gives ideas for simple feeders and basic facts about foods birds eat, nesting, feathers, and migration.

National Audubon Society *First Field Guide: Birds*. 1998. New York: Scholastic, Inc.
A 150-page, beginners' field guide that provides basic information about birds and how to identify them. It contains color photographs of 50 common birds, plus small photos of 125 other species, with pertinent facts about each.

Spaulding, Dean T. 1997. *Feeding Our Feathered Friends*. Minneapolis, Minn.: Lerner Publications Co.
Ideas for making bird feeders from household materials.

References

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- Brenner, B. 1972. *Is It Bigger Than a Sparrow? A Book for Young Bird Watchers*. New York: Alfred. A. Knopf.
- Elliott, L. and M. Read. 1998. *Common Birds and Their Songs*. New York: Houghton Mifflin Co.
- Kress, S. W., ed. 1998. *Bird Gardens: Welcoming Wild Birds to Your Yard*. Brooklyn, N.Y.: Brooklyn Botanic Gardens, Inc.
- Stokes, D. and L. Stokes. 2003. *Stokes Backyard Bird Book: The Complete Guide to Attracting, Identifying, and Understanding the Birds in Your Backyard*. Emmaus, Pa.: Rodale.
- Terres, J. K. 1994. *Songbirds in Your Garden*. Chapel Hill, N.C.: Algonquin Books of Chapel Hill.
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About the author

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Make your own bird feed

Children may enjoy "cooking" for their bird visitors. The recipes below are from *Songbirds in Your Garden*, by John K. Terres.

"Marvel-Meal"

- 1 cup peanut butter
- 1 cup shortening (or lard or other fat such as suet)
- 4 cups cornmeal, white or yellow
- 1 cup white flour

Mix all ingredients. The consistency will be like cookie dough. Spread on pine cones, in tree bark holes, or orange half rinds.

Variations: Substitute cracked, dried corn kernels for the cornmeal.

Quick dough

- 2 cups bacon drippings
- 2 cups cornmeal
- flour

Mix the bacon drippings and cornmeal. Add enough flour to bind the ingredients and make a paste.

You can find more recipes at www.birdwatchersdigest.com under "Backyard Birds." These recipes use ingredients like peanut butter and lard along with oatmeal, raisins, milk, and molasses. Most require baking or freezing.

Bird watching can be done anywhere. Your back yard or neighborhood will provide many opportunities to watch and identify birds. The purpose of this project is to help you appreciate the many species of birds in North Dakota and help you build skills that will help you identify birds. Some of the information included in this project is based on the Birding North Dakota guide by Dan Svingen and Ron Martin. The publication was developed by the North Dakota Game and Fish Department and is available from that agency as well as many tourism information centers.