# Day 4 The social life of birds





# Introduction

Birds engage in many behaviors that humans would consider to be quite sociable — dancing, singing, meeting a mate, creating a safe environment to raise young. Some birds will cooperate with each other while others are very competitive. Finding food and feeling safe influence bird behavior.

Birds may **flock** together during **migration**, **roosting**, or feeding, but their social interactions are most robust during **breeding** season. This day explores some of the social interactions around breeding and also ways in which birds communicate with each other.

# Questions to guide explorations and experiments

- Why do birds flock together?
- In what ways are you social?
- How do birds communicate with each other?
- Why do birds sing? How do they decide what to sing?
- Do birds dance for fun? Why do birds dance?
- Why do birds build nests?
- What are nests used for?

# Books and activities

- Books: all about nests, bird communication, and courtship.
- **Activities:** explore how birds use their voices, learn how to identify their songs, dance like a bird, build a nest, and take a Bird Walk.

#### **Fiction**

- The Lion and the Bird by Marianne Dubuc (Ages 4-6)
- Make Way for Ducklings by Robert McCloskey (Ages 4-8)
- Mango, Abuela, and Me by Meg Medina (Ages 4-8)
- NOPE by Drew Sheneman (Ages 4-8)
- On Eagle Cove by Jane Yolen (Ages 4-8)
- Owl Babies by Martin Waddell (Ages 3-7)
- Red & Lulu by Matt Tavares (Ages 4-8)
- Telephone by Mac Barnett (Ages 4-8)
- Tico and the Golden Wings by Leo Lionni (Ages 4-8)
- The Trumpet of the Swan by E. B. White (Ages 9-12)

# **Poetry**

- Hello, I'm Here! by Helen Frost (Ages 4-8
- A Round of Robins by Katie Hesterman (Ages 4-8)
- Snow Birds by Kirsten Hall (Ages 6-9)

# **Nonfiction**

- About Birds / Sobre los pájaros: A Guide for Children / Una guía para niños by Catherine Sill (Ages 4-8)
- Birding Is My Favorite Video Game: Cartoons About the Natural World from Bird and Moon by Rosemary Mosco (Ages 10-12)
- Bird Talk: What Birds Are Saying and Why by Lita Judge
- Birds Make Nests by Michael Garland (Ages 4-8)
- Birds, Nests and Eggs by Mel Boring (Ages 6-9)
- Cuckoo / Cucu: A Mexican Folktale / Un cuento folklorico mexicano by Lois Ehlert (Ages 3-6)
- An Egg Is Quiet by Dianna Hutts Aston (Ages 4-8)
- Have You Heard the Nesting Bird by Rita Gray (Ages 4-8)
- Mama Built a Little Nest by Jennifer Ward (Ages 4-8)
- A Nest Is Noisy by Dianna Hutts Aston (Ages 4-8)
- Nesting by Henry Cole (Ages 4-8)
- Noisy Bird Sing-Along by John Himmelman (Ages 4-8)
- Woodpecker Wham! by April Pulley Sayre (Ages 4-8)



#### **Breeding**

The process of producing babies (offspring)

#### Call

Short vocalization of a bird usually given as an alarm or for contact

#### **Flock**

Birds of one kind feeding, resting, or traveling together

#### **Forage**

To search for food

#### Lek

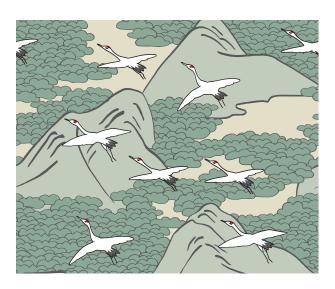
A meeting ground for male birds to gather and dance or display in hopes of attracting a female

#### **Mnemonics**

Something to help assist memory

# **Migration**

Seasonal movement of animals from one place to another



#### **Roosting**

Settling down to rest or sleep



# Scrape

A shallow depression scratched into the bare ground used by some bird species for nesting

## **Species**

Group of living things (such as birds) with similar characteristics and are able to produce young. There are more than 9,000 bird species

# **Vocalization**

To make a sound. Bird vocalization includes bird calls and bird songs



# Activity 1: Bird Songs

## Introduction

It's possible that birds may sing just because they want to, but for the most part, they are using their songs to communicate with other birds. Birds have a variety of vocal sounds they use to communicate in different situations. Kids can explore how birds use **calls** and songs to communicate and learn how to listen for songs and use **mnemonics** to identify the birds they hear and see.

# **Supplies**

- Computer or other device with audiovisual display
- Internet connection
- Bird Journals (see Appendix)
- Pencils



# Get kids thinking ...

Just like people, birds sing! They also use their voices to communicate in other ways. How do you use your voice? Why do we sing? **Ask kids:** Why do they think birds sing?

# Let's get started!

In many bird **species**, both females and males sing incredibly complex songs, but in some species, females do not sing at all. Birds may sing to attract a mate. They may also sing to identify their territory, letting other birds of the same species know that this territory is taken.

Birds also communicate when they make calls — shorter and simpler **vocalizations** — to let each other know their location or make alarm calls to warn of danger approaching, perhaps a hawk in the area. Each song is specific to a species, so you can identify a bird by what it is singing.

# Activity 1: Bird Songs

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#### Step 1: Play the videos below for each bird (or choose others if you prefer):

#### **American Robin**

https://www.allaboutbirds.org/guide/American\_Robin/sounds

#### **Barred Owl**

https://www.allaboutbirds.org/guide/Barred\_Owl/sounds

#### Black-capped Chickadee

https://www.allaboutbirds.org/guide/Black-capped\_Chickadee/sounds

#### **Mourning Dove**

https://www.allaboutbirds.org/guide/Mourning\_Dove/sounds

#### **Step 2:** Have kids watch and look and listen for:

- the size, shape, and color of the bird
- what the bird is doing in the video
- the sounds the bird is making



# Activity 1: Bird Songs

(continued from previous page)

**Step 3: Play the sound for the video again (without showing kids the screen)** or some of the audio files found on the same page, letting kids know which bird they are listening to. **Ask kids** to listen carefully and describe each of the birds' songs or calls in their Bird Journal.

**Step 4: Now see if kids can identify the bird just by hearing the song of that bird.** Use a different audio file than before and have kids close their eyes and listen. After each file ends, ask kids to offer their identifications by raising their hand when you say the name of the bird they think they heard. Discuss how successful kids were at identifying birds with just their ears.

Sometimes it is easier to remember bird songs by using **mnemonics** — a memory tool. Birders often come up with phrases or sounds in their own language to help remember bird songs. Mnemonic phrases follow the same rhythm birds use and need to be catchy to help people remember them.













Sample of bird sound mnemonics (© Bird and Moon)

#### **Step 5:** Share these mnemonics for the birds you listened to earlier:

- American Robin: Cheery up, Cheerio! Cheery up, Cheerio!
- Barred Owl: Who cooks for you? Who cooks for yooou-all!!?
- Black-capped Chickadee: Chick-a-dee-dee. Chick-a-dee-dee
- Mourning Dove: Hooo-ah hoo-hoo-hoo

**Ask kids:** Are these mnemonics good representations of the sounds the birds make? Would they help you remember the bird's song? Share additional English-language mnemonics for other birds:

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Bird Sound Mnemonics: Eastern Bird Sounds (Bird and Moon) https://www.birdandmoon.com/wp-content/uploads/2015/07/birdsounds.jpg

Bird Sound Mnemonics: Western Bird Sounds (Bird and Moon) https://www.birdandmoon.com/wp-content/uploads/2015/07/birdsoundswest.jpg

Mnemonic Bird Songs (South Bay Birders Unlimited) https://web.stanford.edu/~kendric/birds/birdsong.html

**Step 6:** After kids review the phrases, let them look up some of the birds online or use a bird identification app and **listen to the songs of birds they are interested in**. Ask them to write down the bird name and mnemonic in their Bird Journal if the mnemonic works for them. If they can think of a better mnemonic or one in a language they prefer, have them include their version in their Bird Journal.

**Step 7:** To conclude, you can play a variety of bird songs and **let kids invent their own mnemonics and drawings** similar to the Bird and Moon comic mnemonics.

# More bird song activities

Blrd Communication (The Cornell Lab) https://www.birds.cornell.edu/k12/bird-communication/

Songbird Songs – Activities (Nearby Nature) https://nearbynature.fwni.org/2018/09/09/songbird-songs-activities/



# Activity 2: Bird Dancing

# Introduction

Bird dancing is primarily used for finding a mate, so there's always an audience for the dance — a potential mate! Some male birds take things a little farther with a spiffy dance floor or gather in **leks**, a meeting space where birds get together to dance in a group to attract female birds. Kids learn more about the kinds of displays birds put on to attract a mate and can try some bird moves of their own.

# Get kids thinking ...

#### Watch:

This Cockatoo Sure Can Dance https://youtu.be/D8MFhizls\_8

Birds of Paradise (Our Planet) https://youtu.be/rX40mBb8bkU



The cockatoo Snowball is the first animal to dance to music without any training. He is responding to the beat and experimenting — much like people do when they dance. Other bird dances — like that of the Western Parotia — have to be more perfectly choreographed and attuned to what is of interest to a potential mate — not a driving beat. A bird that makes mistakes in the dance might be thought of as weak or inexperienced and not a good choice for mating.

# Let's get started!

Put on some music (Rockin' Robin: <a href="https://music.youtube.com/watch?v=uLF3YZIjucs&list=R-DAMVMuLF3YZIjucs">https://music.youtube.com/watch?v=uLF3YZIjucs&list=R-DAMVMuLF3YZIjucs</a>), have kids stand up, and see what happens. Human brains are primed to move to music. Scientists think it's likely that most birds and animals don't have the same traits that create an impulse to dance. They also don't have access to a lot of music!

Have kids get moving even more deliberately and interpret bird activity using their bodies or imitate the ways different birds move.



# **Activity 2: Bird Dancing**







Get them started with the dances below, and then have them come up with some dances of their own!

#### "The Pigeon"

Bert from Sesame Street made it famous, but everyone can move their heads in and out as they walk in short steps with hands behind their backs.

https://youtu.be/VDJsgtoizj8

#### "The Turkey Vulture Soar"

Like the birds, kids hold their wings (arms) in a wide letter v-shape and rock gently from side to side as they glide around the room.

## "Bird Hop"

Just like sparrows and robins who spend a lot of time hopping around on the ground looking for food, kids can fold their wings (arms) next to their bodies and hop around!

## "The Penguin Walk"

The penguin can't fly, but it is a great swimmer, and its walk is distinct; kids can hold their arms down on their sides or straight out and take short wide steps and wobble while they walk.

# **Do the Penguin Walk / Wild Clips (Sesame Studios)**

https://youtu.be/a6Ur326zJtM

# More bird dancing

Dancing With Birds Merengue routine (English and Spanish) https://youtu.be/qzM1TyNsVrl

Weird and Wonderful Dancing Birds Compilation https://youtu.be/wTcfDCjBqV0



# **Activity 3: Nest Building**

# Introduction

Some birds are more social than others. Crows for example, may **roost** together in the thousands on winter nights. Roosting together has advantages; younger birds can learn from more experienced birds about where to successfully **forage**. Different birds will roost together for different reasons, and will often change their roosting habits in different seasons.

When birds are nesting, birds focus on their mate, building a nest, and raising their young. Kids will learn more about how nests are built and what they are used for as they create a nest of their own.

# **Supplies**

- Natural materials that you find outside such as twigs, grass, leaves, dirt, mud, moss, rocks, sand, etc.
- Ribbons
- Yarn
- Bits of trash, such as plastic bags
- You might also want to provide some of the tools used in the Eating at Home activity (see page 36), such as pliers, tweezers, tongs, etc., if kids want to build using their "beak"



# Get kids thinking ...

**Ask kids:** Why does a bird build a nest? Do all birds build nests? What is the nest used for? Explain that birds typically only use their nests when they are raising their young. Once chicks become capable of flight, adults and young do not usually continue to use the nest. When they aren't nesting, birds select a roosting spot to rest. They often use the same spot to roost night after night.



# **Activity 3: Nest Building**

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#### Watch:

7 Nests That Will Change How You Think of Birds https://youtu.be/mhWDCcBhxLQ

Discuss the requirements for a bird's nest, e.g., right size for the bird, right depth for the eggs, ways to camouflage the nest and protect the young. **Ask kids:** What materials do you think would make a good nest?

# Let's get started!

Bird nests come in all shapes and sizes. Sometimes male and female birds work together to build their nests; in other species, the male builds the nest. In some species, such as the hummingbird, only the female builds the nest — a very tiny nest! Kids might also be interested in birds who lay their eggs on the ground in **scrapes**, like killdeer.







Hummingbird

Killdeer

Osprey



# **Activity 3: Nest Building**

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**Step 1: Provide field guides, pictures of birds and their nests**, or have kids research online for a specific bird they want to build a nest for:

Guide to Common Nesting Birds (The Cornell Lab) https://nestwatch.org/learn/focal-species/

#### **Clutch Size for Common Species**

https://nestwatch.org/learn/general-bird-nest-info/clutch-size-phenology-for-common-species/

**Step 2: When nest construction is complete, have kids share information** about the bird they chose and the nest they built, explaining the nesting materials they used and what they learned about building nests.

Step 3: For an additional challenge, see if kids' nests are able to withstand various tests. Can the nest hold the approximate weight of eggs and parent? Can the nest withstand a windstorm (a fan blowing air on the nest) or rainstorm (a deluge from a watering can or garden hose)?

# More nest-building activities

**Step 4:** After building nests, **split kids into teams to place the nests in appropriate locations outdoors** without the other team watching. Then have kids see if they can find each other's nests: https://dnr.maryland.gov/wildlife/Documents/BirdNests.pdf

WILD at Schools: Build the Best Nest (Maryland Department of Natural Resources) <a href="https://dnr.maryland.gov/wildlife/Documents/BuildtheBestNest\_LessonPlan.pdf">https://dnr.maryland.gov/wildlife/Documents/BuildtheBestNest\_PicturePack.pdf</a>

#### **Guard Your Nest**

https://migration.pwnet.org/pdf/Guard\_Your\_Nest.pdf

Life in a Nest (The Cornell Lab) https://www.birds.cornell.edu/k12/life-in-a-nest-2/



# Focus on some careful listening to help kids find and identify birds.

Spend more time on this walk sitting in one place and have kids listen carefully to the sounds around them. Have them describe what they hear — from passing cars to leaves rustling to bird calls and songs — in their Bird Journal.

# Get them thinking about these questions:

- Did they hear some things at the same time?
- Were they able to hear distinctive sounds?
- Did they hear any sounds that they couldn't identify?
- Was there ever a moment when they heard no sounds at all?

Sitting in one place and listening for a while will help kids learn to determine if the bird is staying in one spot or moving around while singing. As kids listen for birds, have them look for birds based on where the sounds are coming from. As they see a bird, have them watch where the bird is moving and track its movements.

Kids can also more closely (and carefully!) investigate where the bird has been. Perhaps they'll also spot a bird's nest!



# Secret signals

Harriet Tubman grew up in an area full of wetlands, swamps, and forests. Her knowledge of the outdoors helped her and those she led to freedom survive. She used the call of an owl, probably the Barred Owl ("Who cooks for you? Who cooks for you?"), as a signal to slaves seeking freedom. Learn more in this article:



Harriet Tubman, an Unsung Naturalist, Used Owl Calls as a Signal on the Underground Railroad <a href="https://www.audubon.org/news/harriet-tubman-unsung-naturalist-used-owl-calls-signal-underground-railroad">https://www.audubon.org/news/harriet-tubman-unsung-naturalist-used-owl-calls-signal-underground-railroad</a>

Have kids work in pairs to research bird calls for birds in your area that can be easily imitated that they could use to develop their own secret signals. Get them to develop their own signal book with entries for each bird, call, what the call means, and when to use it. You can also work as a group to develop a signal book with bird call signals that can help you locate each other when out on Bird Walks or to announce a change in activity.

# But why?

Many legends and folktales are pourquoi tales. Pourquoi (pronounced *poor-kwah*) tales — sometimes called "origin stories" — are fictional stories that explain why something is the way it is ("pourquoi" means "why?" in French). Before people were able to use science to explain nature, they used these stories to make sense of the world around them. Have kids write a pourquoi tale to explain something about birds — why do birds sing, why do parrot talk, or why the peacock has such colorful feathers.

Write Your Own Pourquoi Story! Worksheet (Read, Write, Think) http://www.readwritethink.org/files/resources/lesson\_images/lesson324/write.pdf

Teaching with Pourquoi Tales

https://www.scholastic.com/teachers/articles/teaching-content/teaching-pourquoi-tales/

# Bird beat

If observing nature were like watching a movie, bird song would be a big part of the soundtrack! Sometimes the sounds of birds singing seem like background music. Other times, the sounds of birds help tell a story of what's happening with the birds. Bird song is the music of the natural world. After spending time outside listening to birds, have kids write their own lyrics for their music.

## Riddle me a bird

Riddles often use ordinary words in unexpected ways. To write a riddle, you have to ask a question that describes something without actually naming what it is. The answer to the question is a surprise twist. Have kids use what they've learned about birds to write their own bird jokes. Here are some examples to get them started:

- What can honk without using a horn? A goose!
- What bird can you hear during mealtime? A swallow!

## Bird chat

Share images of birds in unique positions or situations. Ask kids to think about what the birds in the pictures are thinking or what they might say if they could talk. Pass out the bird chat images (see the next two pages) and ask the kids to write in captions for what they imagine the birds are thinking or saying.

## Find additional bird photos here:

https://unsplash.com/images/animals/birds







## **Websites**

All About Bird Song (The Cornell Lab)

https://academy.allaboutbirds.org/features/birdsong/songbirds-in-action

Bird Song Hero: The Song Learning Game for Everyone (The Cornell Lab) https://academy.allaboutbirds.org/bird-song-hero/

BeastBox (The Cornell Lab)

https://academy.allaboutbirds.org/features/beastbox/

Who Lives Where Game (Audubon Adventures)

http://www.audubonadventures.org/habitat\_game/index.htm

How to Learn Bird Songs and Calls (The Cornell Lab)

https://www.allaboutbirds.org/news/how-to-learn-bird-songs-and-calls/

Birds' Nests (DK Find Out)

https://www.dkfindout.com/us/animals-and-nature/birds/birds-nests/

# **Podcasts**

Cardinal Rule: Female Birds Sing, Too (Scientific American)

https://www.scientificamerican.com/podcast/episode/cardinal-rule-female-birds-sing-too/

You Can Take Part in the Female Bird Song Project (Cape and Islands NPR)

https://www.capeandislands.org/show/living-lab-radio-on-cai/2018-05-21/you-can-take-part-in-the-female-bird-song-project

# **Educational apps**

Chirp! Bird Songs \$

https://www.spinysoftware.com/chirp/

Larkwire game-based learning system for mastering bird sounds \$ https://www.larkwire.com/

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Snapshot Adventures: Secret of Bird Island \$

https://www.commonsense.org/education/game/snapshot-adventures-secret-of-bird-island

Nature Maestro \$

http://www.naturemaestro.com/

# Video

10 Outrageous Ways Birds Dance to Impress Their Mates (Audubon) https://www.audubon.org/news/10-outrageous-ways-birds-dance-impress-their-mates

Watch Blue-footed Boobies Dance (National Wildlife Federation) https://rangerrick.org/nature/watch-blue-footed-boobies-dance/

Lance-tailed Manakins Bird Cam (The Cornell Lab) https://www.allaboutbirds.org/cams/lance-tailed-manakins/

How Swallows Build Nests https://youtu.be/OhxYNPuVivw

Inside Look at a Hornbill's Nest https://youtu.be/5xQR-8EVuX8

Oropendolas — Master Nest Weavers https://youtu.be/-NRf5wpzbDI

Osprey Nest Webcam (Audubon)

https://www.audubon.org/news/hog-island-maine-osprey-nest-webcam

Symphony of the Birds (Jim Fassett) https://youtu.be/7rKjOR-4964