

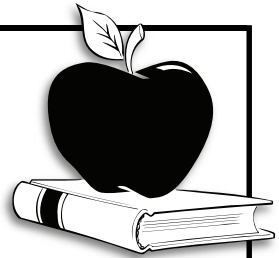
**SUGGESTED GRADE LEVEL:** 4

**NEXT GENERATION SCIENCE STANDARDS:**  
4-LS1-2

**SKILLS/PROCESSES:** mapping, observation, communication, data collection

**OBJECTIVE:** Students will recognize some bird **songs** of common Illinois species and the importance and differences between songs and **calls**.

# TEACHER'S GUIDE

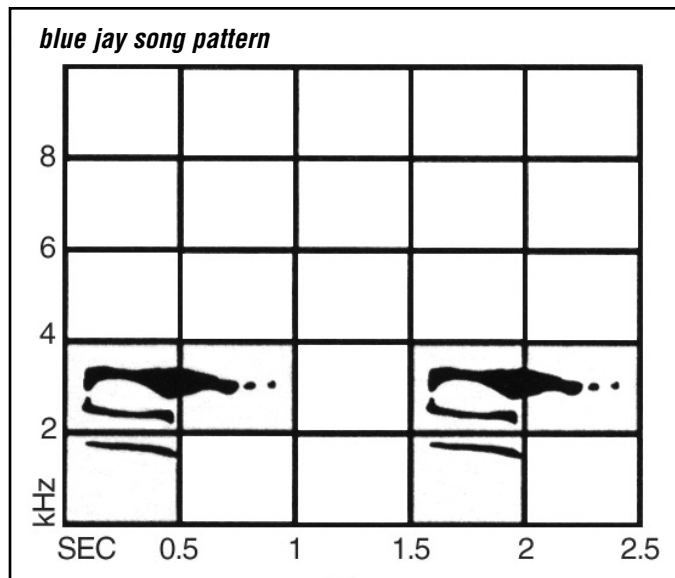


## UNIT 2 ■ LESSON 2

# Bird Banter

### BACKGROUND

Communication is important to birds, especially in habitats where vegetation impedes vision, such as forests, grasslands and wetlands. Birds communicate by vocalizations, such as songs and calls, other noises, like tapping and **drumming**, and behaviors such as courtship flights and dances.



Songs are specific patterns of notes repeated with few variations. They are used to attract mates and mark the territory necessary for production and rearing of young. Birds use the peaceful "war of words" to settle boundary disputes, instead of the dangerous "war of weapons" people sometimes use.

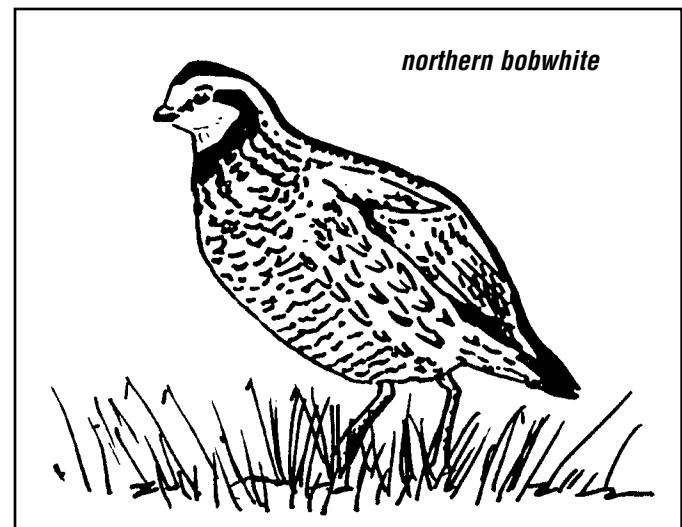
Each species has its own specific song or songs. Some birds have over a dozen calls and songs (northern cardinal). Some birds are able to mimic the songs of other birds (gray catbird, northern mockingbird), humans and our products (European starlings can imitate a car alarm). Just like humans, bird songs have regional dialects. Some birds are born knowing how to sing.

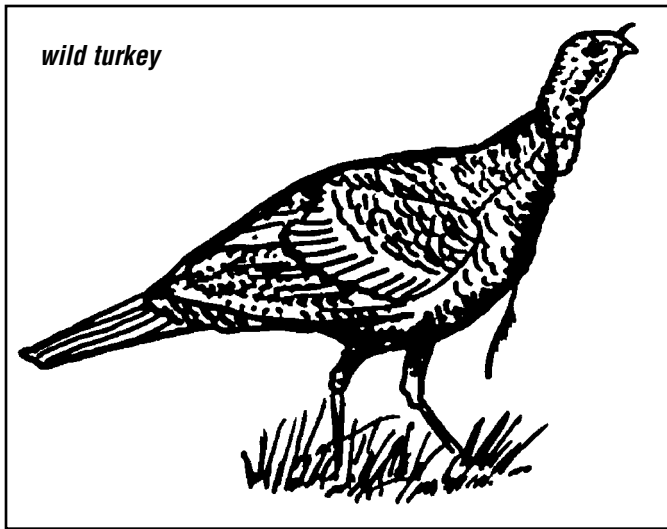
Others must listen to calls of adult birds of their kind and practice the calls before perfecting them.

When alerting others of danger, birds call. Calls are also made when feeding or **migrating**. **Precocial** (independent) young communicate with their parents through a location call. When a **covey** of northern bobwhite is split up, they locate each other and rejoin the group through a gathering call.

Birds do not have vocal cords. To produce sounds, vibrations are sent across the **syrix** (voice box) of a bird. The more muscles a bird has attached to the syrix, the more vocalizations it can make. For instance, northern mockingbirds have many muscles and can produce a variety of sounds, while rock pigeons' singular pair of muscles results in only the single "coo" sound.

A variety of other types of communications are used by birds. Hungry nestlings peck at their parents' beak or open their mouth widely to beg for food. Male ruffed grouse "drum" and greater prairie-chickens "**boom**" to attract a mate. Sandhill cranes and American woodcocks have elaborate mating dances and flights. A male



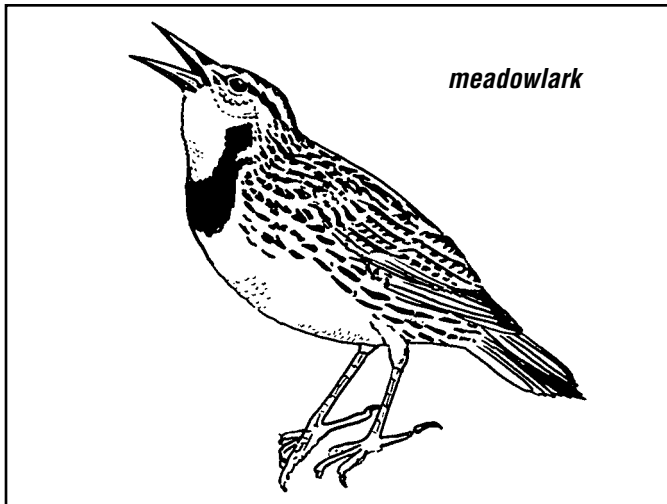


wild turkey will spread its tail and drop and "rattle" its wings to attract a mate.

Communication is very important to birds. Without communication, many birds would starve, lose their way during migration or be unable to defend a territory or find a mate.

### PROJECTS AND ACTIVITIES

1. Learn to attract birds with sound. One of the easiest sounds you can make is to suck on the back of your hand, which will attract chickadees.



2. Listen to the audio CD-ROMs in the *Illinois Birds Resources Trunk* from the Illinois Department of Natural Resources or borrow or purchase audio CD-ROMs that contain bird songs and calls.

### EVALUATION

1. After listening to bird call tapes, take students outdoors and identify bird songs and calls. Have a class bird sounds contest, seeing who can call like a robin or caw like a crow.
2. Test the students to see if they can recognize the calls of species you've studied. For hearing-impaired students, describe the calls in words.

### EXTENSIONS

- Bring a duck/goose call from home and have children share examples of the sounds they can make. Sanitize the call, if shared.
- Visit a nature center where a naturalist can escort you on a bird walk and point out birds and calls. Featured birds may include chickadees, northern cardinals, European starlings, meadowlarks, ducks and geese.

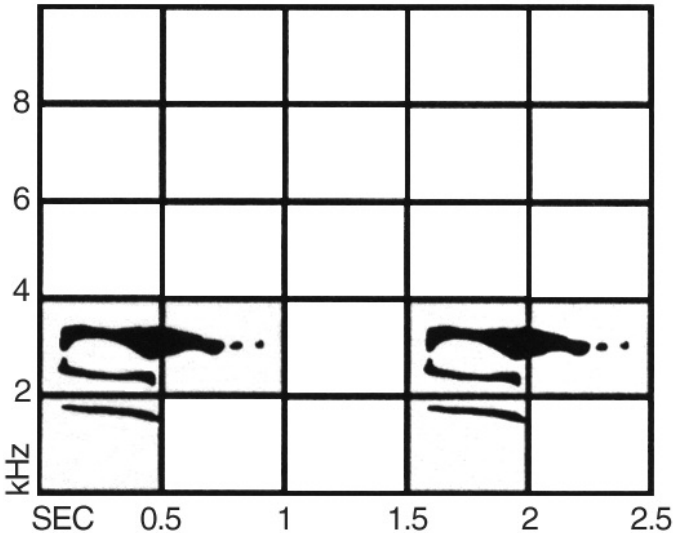
### VOCABULARY

booming	migration
call	precocial
covey	song
drumming	syrinx

# Bird Banter

# STUDENT'S GUIDE

*blue jay song pattern*



Birds communicate by songs and calls or other noises, like tapping and drumming. Courtship flights and dances are other ways birds communicate.

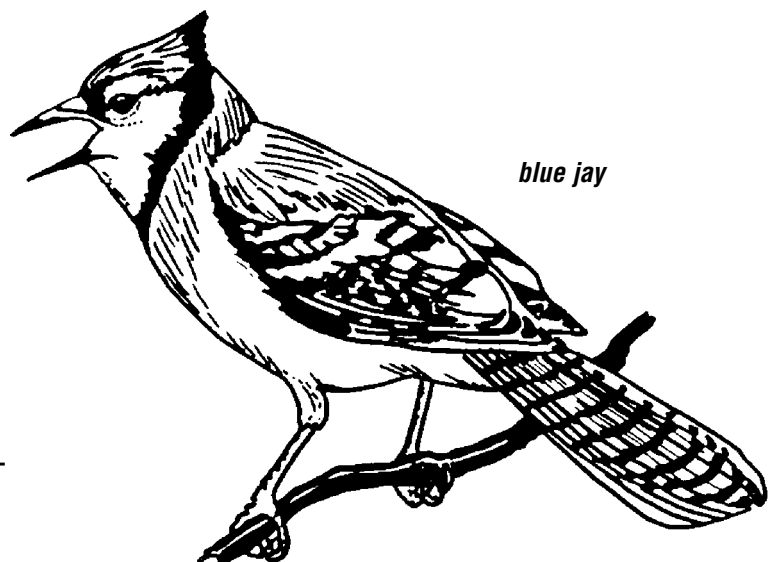
Songs are specific patterns of notes repeated with few variations. Songs are used to attract mates and mark the territory necessary to raise young. Each species has its own specific song or songs. Some birds have over a dozen calls and songs (northern cardinal). Some birds are able to mimic the songs of other birds (gray catbird, northern mockingbird), humans and car alarms (European starling). Some birds are born knowing how to sing. Others must listen to calls of adult birds of their kind and practice the calls before perfecting them.

When alerting others of danger, birds call. Calls are also made when feeding or migrating. Precocial (independent) young communicate with their parents through a location call. When a covey of northern bobwhite is split up, they locate each other and rejoin the group through a gathering call.

Birds do not have vocal cords. To produce sounds, vibrations are sent across the syrinx (voice box) of a bird. The more muscles a bird has attached to the syrinx, the more sounds it can make. For instance, northern mockingbirds have many muscles and can produce a variety of sounds, while rock pigeons' singular pair of muscles results in only the single "coo" sound.

A variety of other types of communications are used by birds. Hungry nestlings peck at their parents' beak or open their mouth widely to beg for food. Male ruffed grouse "drum" and greater prairie-chickens "boom" to attract a mate. Sandhill cranes and American woodcocks have elaborate mating dances and flights. A male wild turkey will spread its tail and drop and "rattle" its wings to attract a mate.

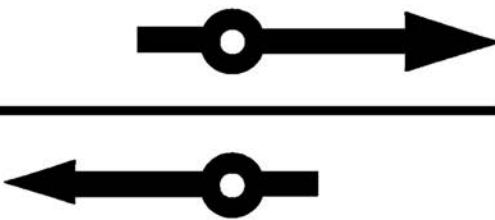
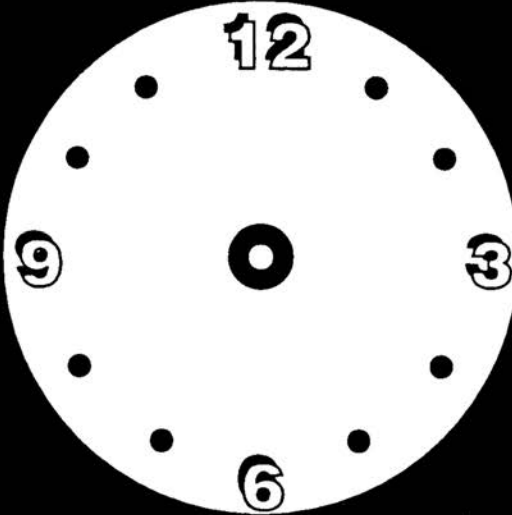
Communication is very important to birds. Without communication, many birds would starve, lose their way during migration or be unable to defend a territory or find a mate.



# ACTIVITY PAGE

## Bird Banter

If you were a bird and wanted to defend your territory or attract a mate, you might break out in song. Birds call out to alert others of danger. Read the following instructions to play this bird song game.

<p><b>WHITE-THROATED SPARROW</b> "poor Sam Peabody-Peabody-Peabody" (4 a.m.)</p>	<p>Cut out cards and clock parts. Assemble clock and distribute cards. Each player should sing at the indicated time and then quiet down around noon. Singing can also continue during evening hours.</p>	<p><b>BLACK-CAPPED CHICKADEE</b> "chick-a-dee-dee-dee" or "fee-bee" (6 a.m.)</p>
<p><b>CHESTNUT-SIDED WARBLER</b> "pleased-pleased-pleased to meet you" (6 a.m.)</p>		<p><b>RED-EYED VIREO</b> "going up – coming down" (6 a.m.)</p>
<p><b>OVENBIRD</b> "teacher-teacher-teacher" (4 a.m.)</p>		<p><b>YELLOW WARBLER</b> "sweet sweet sweet I'm so sweet" (6 a.m.)</p>
<p><b>AMERICAN ROBIN</b> "cheerio cheery me cheery me" (4 a.m.)</p>		<p><b>AMERICAN GOLDFINCH</b> "potato chip – potato chip" (7 a.m.)</p>
<p><b>EASTERN MEADOWLARK</b> "sweet spring is here" (5 a.m.)</p>		<p><b>RED-WINGED BLACKBIRD</b> "konk-la-ree" (5 a.m.)</p>
<p><b>EASTERN WOOD-PEWEE</b> "pee-a-wee" (5 a.m.)</p>	<p><b>COMMON YELLOWTHROAT</b> "witchity-witchity-witchity" (6 a.m.)</p>	<p><b>WHITE-BREASTED NUTHATCH</b> "yank-yank" (7 a.m.)</p>

Reprinted with permission from Hands-on Nature, Vermont Institute of Natural Science (1986).