



# FOR THE BIRDS

## Teaching Unit

K - Grade 2

[www.massaudubon.org/education](http://www.massaudubon.org/education)

**B**irds have always inspired us by their songs, their ability to fly, their seemingly infinite variety of size, shape, and color, their many remarkable adaptations, and their always fascinating and sometimes bizarre courtship rituals. By observing and learning about birds outside the classroom and in the local community, students can acquire and increased understanding about the lives of birds, as well as the animal kingdom, in general.

This unit is ideally co-taught with a parent volunteer or other person who is already interested in birds or else is simply a nature enthusiast.

Effective nature exploration is somewhat dependent upon time of year, weather conditions, and what you hope to observe. Often, however, one observes different wildlife than expected which is one of the things that makes nature observation such fun. Outdoor natural history observations and lessons often present wonderful teaching moments that are unexpected or not planned. Enjoy these moments and relish the unexpected!

Lucy Gertz  
Statewide Education Projects Manager  
Education and Diversity Department

## Unit Introduction

### Massachusetts Curriculum Frameworks supported in this unit

#### Lesson One - Introduction to Birds

##### Activities:

1. What makes a bird a bird? (Prompted group discussion)
2. Try being a bird (Gross motor and sensory skills role play)
3. Get to know a bird (Collect information, complete a worksheet, present to class)

#### Lesson Two - Birds in the School Yard

##### Activities:

1. What do birds need? (Prompted discussion)
2. Exploring the school yard – “School Yard Bird Habitat Bingo”

#### Lesson Three - A School Yard Bird Feeding Station

##### Activities:

1. How birds eat (Prompted discussion, manipulatives, role-playing)
2. Setting up a school yard bird feeder
3. Observing birds at the school yard feeder

#### Lesson Four - Observing Birds near Home

##### Activities:

Bird Observation Exercise (Observation, Recording, Reporting)

#### Do More - Ideas for Extending this Unit



## Massachusetts Curriculum Frameworks and Learning Standards supported in this lesson

Framework	Strand	Topic	Learning Standards
Science and Technology	Life Science	Characteristics of Living Things	PreK-2 Life Science #1: Recognize that animals (including humans) and plants are living things that grow, reproduce, and need food, air, and water.
Science and Technology	Life Science	Characteristics of Living Things	PreK-2 Life Science #3: Recognize that plants and animals have life cycles, and that life cycles vary for different living things.
Science and Technology	Life Science	Heredity	PreK-2 Life Science #4: Describe ways in which many plants and animals closely resemble their parents in observed appearance.
Science and Technology	Life Science	Living Things and Their Environment	PreK-2 Life Science #6: Recognize that people and other animals interact with the environment through their senses of sight, hearing, touch, smell, and taste.
Science and Technology	Life Science	Living Things and Their Environment	PreK-2 Life Science #7: Recognize changes in appearance that animals and plants go through as the seasons change.
Science and Technology	Life Science	Living Things and Their Environment	PreK-2 Life Science #8: Identify the ways in which an organism's habitat provides for its basic needs (plants require air, water, nutrients, and light; animals require food, water, air, and shelter).
English Language Arts	Language	Questioning, Listening, and Contributing	PreK-12 Language #2: Students will pose questions, listen to the ideas of others, and contribute their own information or ideas in group discussions or interviews in order to acquire new knowledge.
Arts	Visual Arts	Observation, Abstraction, Invention, and Expression	PreK-12 Visual Arts #3: Students will demonstrate their powers of observation, abstraction, invention, and expression in a variety of media, materials, and techniques.



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## Lesson One - Introduction to Birds

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Through presentations of story, images, puppet show, and prompted discussions, students will be taught to identify the main physical traits and characteristic behaviors and adaptations of birds. By manipulating feathers, students will be introduced to these unique body parts which distinguish birds from other animal groups and enable them to survive. By participating in movement and role-playing activities, students will attempt to mimic and experience some of the physiological traits and behaviors of birds. By completing a worksheet, students will learn the distinctive physical and some behavioral characteristics of one or more species of common schoolyard birds. Students will reinforce that understanding by presenting information to the class and will learn about other birds commonly seen in the schoolyard by listening to other students' presentations.

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### Lesson Objectives

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Students will know and be able to:

- Describe how birds are living things because they grow, reproduce, and need food, air, shelter, and water
- Compare a bird's life cycle and to another animal's life cycle
- Name characteristics used to identify birds (color, size, beak type, song, etc.)
- Describe three physical characteristics of birds in general (they have feathers, lay eggs, most have hollow bones, etc.)
- Describe two adaptations of birds - one physical and one behavioral
- Create a field guide page for one local, common Massachusetts bird species



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## Activity Set #1 – What Makes a Bird a Bird?

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### Materials and Resources

- Various printed images of birds and other animals, from calendars, posters, or magazines
- Small life-like stuffed (toy) birds
- Images of Massachusetts birds printed from online sources: Google Images
- Feathers – large clean ones from a craft store are fine, one for each student
- A storybook to read aloud. One suggestion is *That Chickadee Feeling* by Frank Glew [www.kw.igs.net/~fsglew/description.html](http://www.kw.igs.net/~fsglew/description.html)
- Any field guide or laminated field sheet of birds that includes Massachusetts. We recommend “A Guide to Backyard Birds of Eastern North America” published by Massachusetts Audubon Society: [www.massaudubon.org/shop/guides](http://www.massaudubon.org/shop/guides)
- For background reference: “The Birdwatcher’s Companion to North American Birdlife” published by No. Princeton U. Press, written by Chris Leahy: [www.amazon.com/Birdwatchers-Companion-Christopher-Leahy/dp/0517189089](http://www.amazon.com/Birdwatchers-Companion-Christopher-Leahy/dp/0517189089)
- Magnifying lenses, optional

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### Vocabulary

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Beak  
Bill

Feather  
Preening

Wings  
Flight

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### Procedures

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#### 1. Read an Introductory Story

Read a storybook aloud and have a brief discussion about what students know about birds (from the story or from their own experiences.) One suggestion - *That Chickadee Feeling* by Frank Glew

#### 2. Physical characteristics of birds

Show various bird images and discuss what students notice about the birds. Prompt the students to name the physiological characteristics birds share: feathers, bills/beaks, wings.



### 3. Feathers

Give a few different feathers to each student or small group of students. Have them spend a few minutes examining the feathers. Explain what feathers do for birds:

- insulate birds from water and cold temperatures
- may be plucked to line the nest and provide insulation to the eggs and young
- individual feathers in the wings and tail play important roles in controlling flight
- some species have a crest of feathers on their heads or other “decorations” to identify their species or attract a mate
- the color patterns of feathers serve as camouflage
- some feathers are also important for display purposes during the nesting season (bright colors, for example)

Have the students look at each feather using magnifying lenses if available. The shaft of the feather is like the trunk of a tree with the barbs of the vane coming off of it like branches. Each barb is lined with barbules that hook to other barbules. Barbules work a bit like Velcro. Students can try splitting the feather’s barbs apart, and then try to comb them back into place using a pencil as a “beak.” Birds constantly clean and repair their feathers; this is called “preening”



#### *Fun facts*

***Songbirds have 3500 to 5000 feathers, and water birds may have 12,000 feathers.***

***Some species of male and female birds have different colored feathers. In many species, the female is subtly colored for camouflage while the male is brightly colored for display.***



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## Activity Set #2 – Try being a bird

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### Materials and Resources

- Puppet show on birdsong – from *Hands-on Nature*
- Various printed images of birds and other animals, from calendars, posters, or magazines
- Images of Massachusetts birds printed from online sources such as Google Images
- Bird song recordings (optional) - lots are available online. “Urban Bird Songs Project” is a great one.

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### Vocabulary

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Wingspan  
Flight

Bird song  
Territory

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### Procedures

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#### 1. Physical characteristics and distinctive behaviors of birds

Show various bird images. Prompt the students to recall the physical characteristics birds share: feathers, bills/beaks, wings. Through a prompted discussion, have students try to identify the distinctive behaviors of birds – singing, flight, etc.

**2. Birdsong Puppet Show (from *Hands-on Nature*)** This great book can be purchased at [shop.vinsweb.org/browse.cfm/4,18.html](http://shop.vinsweb.org/browse.cfm/4,18.html)

#### 3. Have students try being birds:

- Stand on one leg like a heron
- Sing like a bird – try to whistle, hoot, quack, squawk, and chirp
- Bird vision – test how well students can read a message or word taped to a classroom wall. Raptors can see up to 8 times more clearly than the sharpest human eye. A golden eagle can see a rabbit from a mile away.
- Spread your wings – measure the outstretched arms of the students to determine their wingspan and then show wingspan of an albatross (12 feet) or condor (11 feet) for comparison.
- Fly like a bird - soar like a hawk, fly like a songbird, flap their wings really fast like a hummingbird, test their endurance and see how long they can flap their wings



# Bird Song Puppet Show

**Characters:** Rocky Raccoon  
Mr. Bird - brightly colored  
Ms. Bird - same shape, duller coloration

**Prop:** Sign saying: Next day 5:00 AM

**Mr. Bird:** Twee Tweedle Dee, Titter Tatter Teer  
Twee Tweedle Dee, Titter Tatter Teer

**Rocky Raccoon:** (waking up) Uh, Mr. Bird, Mr. Bird. You have been singing that same song with those same words over and over and over again since 5:00 this morning. No offense, but it's *driving me crazy!* If you insist upon singing for so long, can't you at least change the song?

**Mr. Bird:** Change the song! I can't just change my song. It'd be like asking you to start barking like a dog.

**Rocky:** What do you mean? I hear lots of different bird songs.

**Mr. Bird:** Yes, but they're coming from lots of different birds. Each different kind of bird has a different special song of its own and mine is Twee Tweedle Dee, Titter Tatter Teer, Twee Tweedle Dee . . .

**Rocky:** Yes, yes I know what your song is. Ok, I accept the fact that you only sing one song. But *why* do you have to *keep* singing it?

**Mr. Bird:** Because I'm looking for a mate, a partner, a Mrs. Bird . . .

**Rocky:** Oh brother, I should have known, the same old story.

**Mr. Bird:** That's what my song means:  
Twee Tweedle Dee  
Come see me  
Titter Tatter Teer  
I'd like you here  
(flies off singing)

**Rocky:** Twee Tweedle Dee. Come see me. I think this bird is going to drive me crazy. I think it's *driven* me crazy. I'm starting to talk to myself. Well, I think the only way I'll get that bird to stop singing is to find him a mate. Here goes: Twee Tweedle Dee. Come see me. Titter Tatter Teer, I'd like you here. Come on audience, I could use some help. Twee Tweedle Dee. Come see me. (Ms. Bird appears)

**Ms. Bird:** Why I could have sworn I heard a Twee Tweedle Dee, Titter Tatter Teer coming from here. But I don't see any bird like me around. (starts to leave)

**Rocky:** Don't leave yet, Ms. Bird. If you go right by that tree over there, I'm sure you'll find yourself a handsome mate.

**Ms. Bird:** Thanks for the advice, Rocky. (leaves)

**Rocky:** Oh, I think this is going to work. Maybe I'll be able to sleep late now. (Mr. and Ms. Bird seen flying around together) It looks good. It looks very good! Thank you so much for the help audience. No more 5:00 mornings for me. (lies down, snores a little; sign saying Next Day 5 AM appears)

**Mr. Bird:** Twee Tweedle Dee, Titter Tatter Teer. (repeat)

**Rocky:** (waking up) I don't believe it. He's still singing at 5:00 in the morning. Mr. Bird. What is going on? I found you a mate.

**Mr. Bird:** Yes, but my song is not only to find me a mate.

**Rocky:** But you told me it meant Twee Tweedle Dee. Come see me. Titter, Tatter Teer, I'd like you here. Isn't that right audience? (pause)

**Mr. Bird:** Yes, but it also means:  
Twee Tweedle Dee  
Stay away from me  
Titter Tatter Teer  
Don't come near

**Rocky:** One song means two different things?

**Mr. Bird:** You said it. To a Ms. Bird it means one thing and to a Mr. Bird it means something else.

**Rocky:** But why are you trying to keep birds away?

**Mr. Bird:** Because this is *my* territory, *my* home. Mrs. Bird and I are going to build a nest and raise young here. My song will keep other birds like me away.

**Rocky:** Have you ever considered No Trespassing signs?

**Mr. Bird:** I'd rather sing.

**Rocky:** So when spring is over and Mrs. Bird and you have built your nest, raised your young, and we're well into summer, *then* will you be quiet?

**Mr. Bird:** Well, not completely quiet. I won't be singing my Twee Tweedle Dee so much, but I'll still be making my short calls to warn others of danger and tell them where there's food.

**Rocky:** As long as there won't be *quite* so much Twee Tweedle Deeing.

**Mr. Bird:** Speaking of which, I better get singing. Twee Tweedle Dee. Titter, Tatter, Teer. Bye, bye everyone. Twee Tweedle Dee . . .

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#### 4. Imitate real bird songs

Play a recording of bird songs and ask the students to imitate the rhythm, pitch, and intonation as well as they can. Explain that bird songs are one way people identify birds and that the call of some birds sounds like their name (Chickadee and Jay for example.)



##### *Fun facts*

*Most of the bird songs we hear are males singing to either attract female birds or to claim their territory.*

*Birds have a special “song box” called a syrinx in their throats that allows some birds to sing two songs at the same time.*

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### Activity Set #3 – Get to know a bird

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#### Materials and Resources

- Various printed images of birds and other animals, from calendars, posters, or magazines
- Field sheet of common schoolyard birds
- Images of Massachusetts birds printed from online sources: Google Images
- Any field guide to birds that includes Massachusetts
- Bird worksheets – one copy for each student or each small group of students
- Info about specific bird species –
  - [www.allaboutbirds.org](http://www.allaboutbirds.org)
  - [www.massaudubon.org/Nature\\_Connection/wildlife/common\\_birds.php](http://www.massaudubon.org/Nature_Connection/wildlife/common_birds.php)
- Any field guide or laminated field sheet of birds that includes Massachusetts. We recommend “A Guide to Backyard Birds of Eastern North America” published by Massachusetts Audubon Society: [www.massaudubon.org/shop/guides](http://www.massaudubon.org/shop/guides)
- For background reference: “The Birdwatcher’s Companion to North American Birdlife” published by No. Princeton U. Press, written by Chris Leahy: [www.amazon.com/Birdwatchers-Companion-Christopher-Leahy/dp/0517189089](http://www.amazon.com/Birdwatchers-Companion-Christopher-Leahy/dp/0517189089)

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#### Vocabulary

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Species  
Coloration  
Camouflage

Adaptation  
Nest  
Habitat

Migration  
Nocturnal  
Diurnal



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## Procedures

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### 1. Focus on one bird

From the field sheet of common schoolyard birds, have each student or small group of students select one bird to study. Instruct the students to start their bird worksheet, trying to accurately color the male and female birds and eggs so they match the printed images available for reference.

### 2. Learn about your bird

Using a field guide, websites, books, or other reference materials, have students look up information about the bird species they are studying and complete the worksheet

- What it eats
- Its habitat (in the woods, near a pond, in a meadow, etc.)
- Where it lives (nests on the ground, in a tree cavity, on a building, on a branch, for example)
- If it lives in Massachusetts year-round or if it migrates to live elsewhere in winter

### 3. Share what you have learned

Have each student present their completed worksheet and share some of the information they have learned about the bird they chose. Students can describe how the female birds and eggs are camouflaged.



***Fun fact - Of the 9000+ different species of birds in the world, approximately 300 are regularly seen in Massachusetts.***



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**Common Schoolyard Birds**

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White-breasted Nuthatch



Tufted Titmouse



American Crow



Black-capped Chickadee



Blue Jay



House Sparrow



Pigeon



Northern Cardinal



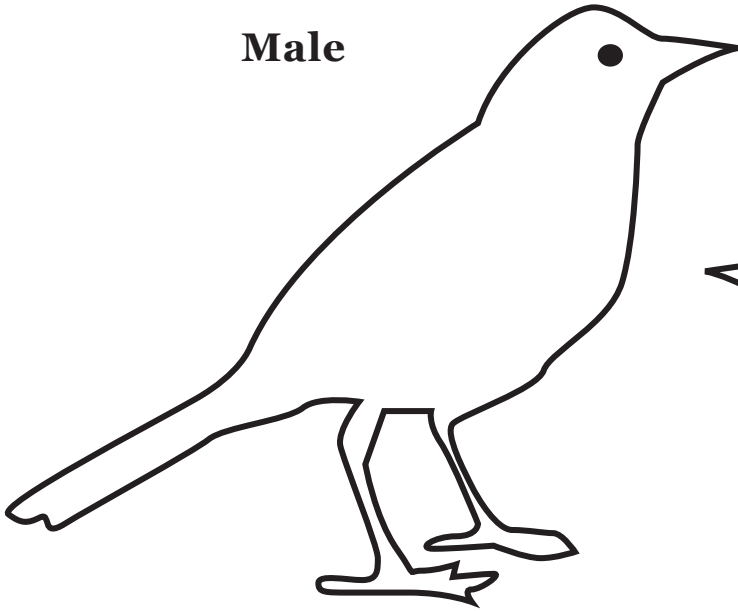
Mourning Dove



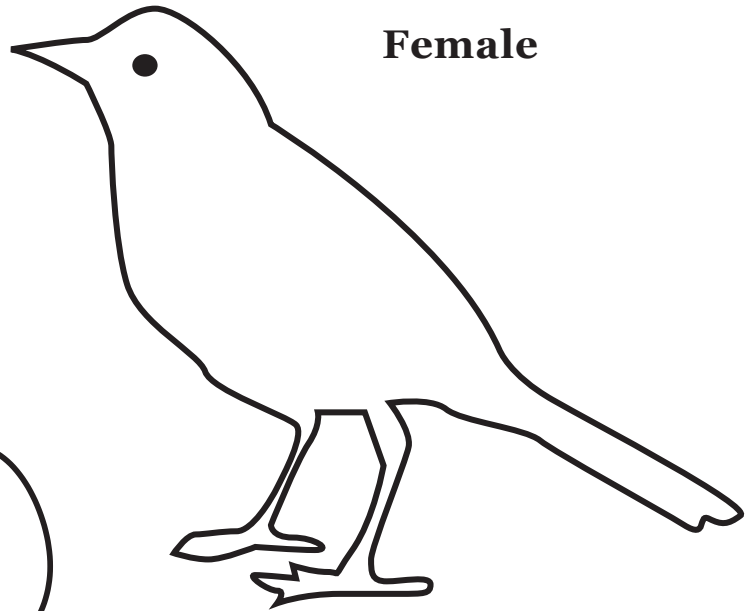


### Bird Worksheet

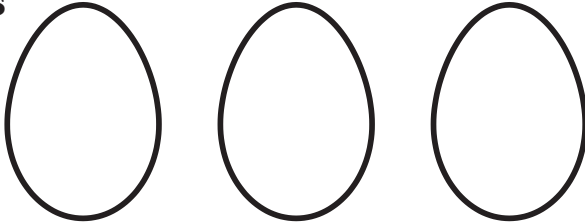
**Male**



**Female**



**Eggs**



Name of Bird \_\_\_\_\_

Habitat \_\_\_\_\_

What kind of nest it builds \_\_\_\_\_

Where does this bird spend the winter? \_\_\_\_\_

Food this bird eats \_\_\_\_\_

Something interesting about this bird \_\_\_\_\_





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## Lesson Two - Birds in the School Yard

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Through visual presentations, prompted discussions, hand-on activities, and guided schoolyard explorations, students will be taught the basic essentials for the physical survival of birds, and all animals. Students will be introduced to the concept of habitat as a place where an animal can find everything it needs (food, water, shelter, air, and space) and that different species have different habitat requirements. Students will learn how to behave to maximize their chances of observing animals in the schoolyard and elsewhere. Students will be introduced to a variety of nests and nesting resources and will create one of their own.

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### Lesson Objectives

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Students will know and be able to:

- Understand the basic needs of birds and all animals
- Learn how birds meet their basic needs in order to survive through pictures, models, and observation of live birds in the schoolyard
- Understand bird adaptations and behaviors for nesting and feeding
- Identify bird habitats
- Understand that birds are living things that grow, reproduce, and need food, air, shelter, space, and water
- Understand the bird life cycle and compare it to life cycles of other animal groups



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## Activity Set #1 – What birds need to survive

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### Materials and Resources

- Various printed images of birds featuring shelters (nests, habitats, nesting boxes) and feeding behaviors (birds catching food, eating, feeding young) from calendars, posters, magazines, or online sources
- A storybook to read aloud. One suggestion is *Stellaluna* by Janell Cannon
- Any field guide or laminated field sheet of birds that includes Massachusetts. We recommend “A Guide to Backyard Birds of Eastern North America” published by Massachusetts Audubon Society: [www.massaudubon.org/shop/guides](http://www.massaudubon.org/shop/guides)
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- Nest building materials– sticks, dried plant materials, leaves, string, yarn, etc. These can be collected around the schoolyard by the students, or they can be brought in by the teacher or volunteer. You can also supply paper cups, bowls, or bags to use as a base, and some mud to use as “glue.”

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### Vocabulary

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Nest  
Shelter

Habitat  
Camouflage

Behavior

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### Procedures

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#### I. What birds need to survive

Lead a prompted discussion of what we need to survive – food, water, a place to live, adults to care for us, staying safe and clean, etc. Using the various printed images of birds featuring shelters, lead a prompted discussion of what birds need to survive – food, water, parental care, and shelter. Introduce the word habitat to describe a place where a bird can find everything it needs (food, water, shelter, air, and space) and give examples of habitats - meadows, forests, marshes, schoolyards, and backyards.



## 2. Nests

Explain that birds need nests to shelter and protect their eggs and hatchlings. Show images of various types and sizes of nests – woven sticks and plant materials, baskets, tunnels, mounds, etc. Discuss that nests are made of many different materials – sticks, stems, leaves, sand, mud, pine needles, moss, hair or fur, bark, feathers, spider web silk, etc. depending on what is available in a bird’s habitat and how that species of bird has evolved. Explain that birds nest on the ground, in and on buildings, in the branches of living trees and shrubs, in holes and cavities in both living and dead trees, in nest boxes people provide, and sometimes in the nests of other birds. Some birds make no nest at all, just scrape a little depression in sand, for example. Using various nest building materials, have each student (or small group of students) build a nest. Ask students to imagine building a nest with only a beak to work with. When nest-building with students, it may be helpful to provide a base structure such as a paper bag or bowl. After gathering materials for nests, mud may be used as the ‘glue’ for the rest of the materials. Students can also make simple nests in a sand pit/digging area to learn how this is done by some ground nesting birds.

## 3. Birding Expedition

When the nests are completed, have students cut out their birds and eggs from the Lesson One worksheets, and arrange their nests. The nests (containing birds and eggs) can be placed, or hidden, around the classroom or school yard. When all the birds are in the nests, go for a “classroom bird watching expedition” and see if the students can find all the birds and nests.



### ***Fun facts***

***Birds build nests with their beaks and feet!***

***A Bald Eagle’s nest is added to each year and may get to weigh more than a ton!***

***Few birds use their nest other than when they are raising their young, unlike people that live in houses year round.***

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## Activity Set #2 – Exploring the School Yard

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### Materials and Resources

- Copies of “School Yard Bird Habitat Bingo” (one for each student or small group of students)
- Pencils
- Copies of “How many birds can you find around the schoolyard?” tally sheet



- Any field guide or laminated field sheet of birds that includes Massachusetts. We recommend “A Guide to Backyard Birds of Eastern North America” published by Massachusetts Audubon Society: [www.massaudubon.org/shop/guides](http://www.massaudubon.org/shop/guides)
- For background reference: “The Birdwatcher’s Companion to North American Birdlife” published by No. Princeton U. Press, written by Chris Leahy: [www.amazon.com/Birdwatchers-Companion-Christopher-Leahy/dp/0517189089](http://www.amazon.com/Birdwatchers-Companion-Christopher-Leahy/dp/0517189089)

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## Vocabulary

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Habitat  
Niche

Nest

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## Procedures

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### I. Schoolyard bird habitat safari

Explain to the students that the class will be going out to the schoolyard to look for birds, signs of birds, and things birds need in their habitats. Ask students how they think they should behave if they see birds in the school yard. Encourage the students to step slowly and quietly, using their ears as much as their eyes. Ask them to “freeze in place” if they see or hear a bird and slowly raise their arms and point to what they observed.

Take a walk around the schoolyard and look and listen for birds. If there are any birds, stop and observe them for as long as possible.

Give each student (or small group of students) a copy of the School Yard Bird Habitat Bingo and a pencil. Using this bingo game, they will look for birds, nests, sources of food and water, places for shelter, and other things birds need in their habitats.

After the students have found as many of the items as possible, come back together and have the students orally share what they observed.

Students can also complete the tally sheet “How many birds can you find in the schoolyard?”









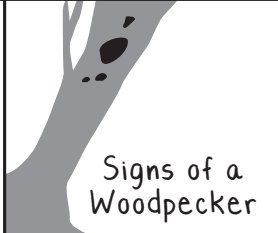


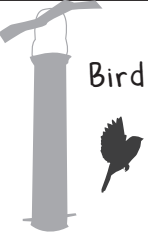


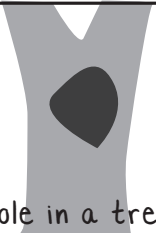







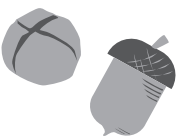
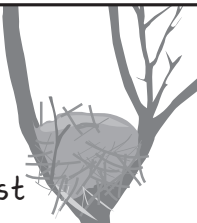


***Fun fact - Of the 300 birds species seen in Massachusetts, 200 are known to nest here.***





**School Yard Bird Habitat Bingo**

# B I N G O

<p>Bird on a branch</p> 	 <p>Feather</p>	 <p>Food-berries</p>	 <p>A bird looking for food</p>	<p>Food - an insect</p> 
<p>Flying bird</p> 	 <p>Signs of a Woodpecker</p>	 <p>Walking bird</p>	 <p>Food - a flower</p>	 <p>Bird feeder</p>
 <p>Material for nest building</p>	 <p>Bird call</p>	<p><b>Free Space</b></p>	 <p>Hole in a tree</p>	 <p>Bird tracks</p>
<p>Singing bird</p> 	<p>Water for a bird to drink</p> 	 <p>Food - seeds</p>	 <p>Shelter for a bird</p>	 <p>Hiding bird</p>
<p>Bird with more than one color</p> 	<p>Food - a nut</p> 	 <p>Nest</p>	 <p>Flying bird</p>	<p>Food - pine cone</p> 



————— **How many birds can we find in the schoolyard?** —————

<b>Habitat</b>	<b>Number of Birds</b> Count the birds you see in each area. Draw a tally mark for each bird that you see
Outdoor classroom and garden	
Playing field	
Front entrance of school (trees and bushes)	
Sky	

<b>Habitat</b>	<b>Number of Birds</b> Count the birds you see in each area. Draw a tally mark for each bird that you see
Outdoor classroom and garden	
Playing field	
Front entrance of school (trees and bushes)	
Sky	





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## Lesson Three - A School Yard Bird Feeding Station

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Through a presentation of images and prompted discussion, students will be introduced to the diets of birds and how the variety of bird beaks relates to bird diet. Students will compare their own diets and the amount of food they eat to a bird's diet. Students will enter the bird world in their classroom through a learning activity linking beak types to food sources. By manipulating a model of a bird's crop students will gain an understanding of bird digestion. Students will help set up one or more bird feeders in the school yard and observe and monitor the birds that visit the feeder, recording the avian visitors on a "Bird Feeder Observation Chart."

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### Lesson Objectives

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Students will know and be able to:

- Understand that birds are living things that grow, reproduce, and need food, air, and water
- Understand the bird life cycle and compare it to life cycles of other animal groups
- Name characteristics used to identify birds (color, size, beak type, song, etc.).
- Understand the basic needs of birds and all animals
- Learn how birds meet their basic needs in order to survive through pictures, models, and observation of live birds in the schoolyard
- Understand bird adaptations and behaviors for feeding
- Be introduced to bird diets, beak variety, feeding adaptations, and digestion



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## Activity Set #1 – Eating Like a Bird

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### Materials and Resources

- Any field guide or laminated field sheet of birds that includes Massachusetts. We recommend “A Guide to Backyard Birds of Eastern North America” published by Massachusetts Audubon Society: [www.massaudubon.org/shop/guides](http://www.massaudubon.org/shop/guides)
- For background reference: “The Birdwatcher’s Companion to North American Birdlife” published by No. Princeton U. Press, written by Chris Leahy: [www.amazon.com/Birdwatchers-Companion-Christopher-Leahy/dp/0517189089](http://www.amazon.com/Birdwatchers-Companion-Christopher-Leahy/dp/0517189089)
- Various printed images of birds featuring feeding behaviors (birds catching food, eating, feeding young) from calendars, posters, magazines, or online sources
- An identification guide of common feeder birds: [www.wildbirds.com/IdentifyBirds/CommonFeederBirds](http://www.wildbirds.com/IdentifyBirds/CommonFeederBirds)
- Small Ziploc bags containing a few small stones and a few small pieces of softened birdseed
- bird feeder tally sheet
- One or more bird feeders
- Birdseed
- Birdfeeder observation sheets

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### Procedures

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#### I. Eating like a bird

Lead a prompted discussion and make a list of the students’ favorite foods and drinks. Using the various printed images of birds featuring feeding behaviors, discuss what birds eat – a variety of seeds, nuts, fruits, and insects, fish, meat, etc. At certain times of the year, to fuel up for a long migration or to survive a cold winter season, birds eat at least the equivalent of their body weight in a day. For a 50-pound student, that could mean eating two hundred quarter-pound hamburgers!

Using the various printed images of birds featuring feeding behaviors, lead a prompted discussion of how birds’ beaks come in all shapes and sizes enabling those birds to eat certain foods. Put out a “bird buffet” of gummy worms, goldfish crackers, raisins, and other foods safe for your students to eat. Provide “beaks” of tweezers, eye droppers, spoons, chopsticks, and drinking straws. Let your students experiment with beak adaptations by attempting to pick up the various foods with the various beaks.



Give students a small Ziploc bag containing a few small stones and a few pieces of softened birdseed. By kneading the bag, students can see how a bird's gizzard grinds food that the bird has swallowed. Explain that we chew our food with teeth, but birds don't have teeth. That's why birds swallow their food whole without chewing.

## 2. Set up a schoolyard bird feeding station

Set up one or more bird feeders in the school yard. (If there is already an established bird feeding station in your school yard, you can simply use that.)

Have students observe and monitor the birds that visit the feeder. Students should record their avian visitors on the "Bird Feeder Observation Chart."



***Fun fact - Wild birds eat mostly wild foods. Even birds that regularly come to a feeder get most of their food from their own habitats.***



**Classroom Bird Feeder Observation Sheet**

Date	Time of Day	Weather	Bird seen at feeder	Observation Notes





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## Lesson Four - Observing Birds near Home

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In a prompted discussion, students will review what they have learned about birds— physical characteristics, basic needs for survival, behaviors and adaptations, and the individual traits of several species of birds observed in the schoolyard. This introduction into the world of birds will be extended beyond the schoolyard and into the students' neighborhoods. Family members or neighbors of students can be involved in this lesson, working with the students near home as needed so that the students can observe birds in their neighborhood for one week. By reporting back to the class, students will demonstrate what they have observed, learned, and now understand about bird identification, behavior, and adaptations.

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## Lesson Objectives

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Students will know and be able to:

- Review the introductory information learned about birds in this unit
- Review their understanding of bird adaptations and behaviors
- Observe birds in their neighborhoods
- Identify birds, observe behaviors, and monitor bird activity in their neighborhood
- Complete bird observation worksheets and report back on the experience



## Materials and Resources

- Any field guide or laminated field sheet of birds that includes Massachusetts. We recommend “A Guide to Backyard Birds of Eastern North America” published by Massachusetts Audubon Society: [www.massaudubon.org/shop/guides](http://www.massaudubon.org/shop/guides)
- For background reference: “The Birdwatcher’s Companion to North American Birdlife” published by No. Princeton U. Press, written by Chris Leahy: [www.amazon.com/Birdwatchers-Companion-Christopher-Leahy/dp/0517189089](http://www.amazon.com/Birdwatchers-Companion-Christopher-Leahy/dp/0517189089)
- Various printed images of birds featuring feeding behaviors (birds catching food, eating, feeding young) from calendars, posters, magazines, or online sources
- An identification guide of common feeder birds:
- [www.wildbirds.com/IdentifyBirds/CommonFeederBirds/tabid/674/Default.aspx](http://www.wildbirds.com/IdentifyBirds/CommonFeederBirds/tabid/674/Default.aspx)
- Observation sheets

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## Procedures

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### 1. Review what we have learned about the world of birds

In a prompted discussion, review what the students have learned about birds— physical characteristics, basic needs for survival, behaviors and adaptations, and the individual traits of several species of birds observed in the schoolyard. Explain to the students that this introduction into the world of birds will now be extended into their neighborhoods.

### 2. Observing birds in your neighborhood

Explain to the students that the class will be going out in their neighborhoods to look for birds, signs of birds, and things birds need in their habitats. Remind the students how their behavior will affect their success - stepping slowly and quietly, using their ears as much as their eyes, and “freezing in place” if they see or hear a bird will result in more bird observation opportunities.

Give each student a copy of the “Birds in my Neighborhood” worksheet. Using this worksheet, students will look for birds, nests, sources of food and water, places for shelter, and other things birds need in their habitats.

After a week, have the students present their completed worksheets and orally share what they observed in their neighborhoods.





Your Name \_\_\_\_\_

Date \_\_\_\_\_

**Birds I observed in my neighborhood**

Date	Time of Day	Weather	What bird I saw	Observation Notes



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## Do More

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Possible extensions for this unit:

- Have a live bird brought to your classroom by a local bird rehabilitator or bird educator (link to [www.massaudubon.org](http://www.massaudubon.org))
- Go to a local wildlife sanctuary or wildlife rehabilitation center for a program with a naturalist or rehabilitator (link to [www.massaudubon.org](http://www.massaudubon.org))
- Take a field trip or invite a birder or naturalist to present a program and lead an outdoor experience in the schoolyard (link to [www.massaudubon.org](http://www.massaudubon.org))
- Maintain the bird feeding station beyond the duration of this unit and continue to monitor and observe the birds that visit
- Create a bird habitat or bird garden in your school yard or in your community
- Put nesting materials in the schoolyard and see if birds use them to build nests – colorful pieces of yarn or string, drier lint, etc.
- Find ways to help birds at home (visit [www.Massaudubon.org](http://www.Massaudubon.org) for ideas). Birds need lots of help. Threats to birds include cats, windows, tall towers, cars, and pesticides. Look into local efforts to help birds and have students get involved in these efforts, at home, in school, and in the community.
- Keep a class list of all the birds seen during the unit and for the remainder of the school year (for a Massachusetts bird checklist, link to [www.massaudubon.org](http://www.massaudubon.org))
- Read additional books about birds and bird conservation:
  - *She's Wearing a Dead Bird on Her Head* by Kathryn Lasky
- Have students write and perform stories, plays, poems, or puppets shows about birds
- Birds need lots of help. Threats to birds include cats, windows, tall towers, cars, and pesticides. Look into local efforts to help birds and have students get involved in these efforts, at home, at school, and in the community.



**Thanks to the following people who helped produce this teaching unit:**

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**Mass Audubon** works to protect the nature of Massachusetts for people and wildlife. Together with more than 100,000 members, we care for 35,000 acres of conservation land, provide school, camp, and other educational programs for 225,000 children and adults annually, and advocate for sound environmental policies at local, state, and federal levels. Founded in 1896 by two inspirational women who were committed to the protection of birds, Mass Audubon is now one of the largest and most prominent conservation organizations in New England. Today we are respected for our sound science, successful advocacy, and innovative approaches to connecting people and nature. Each year, our statewide network of wildlife sanctuaries welcomes nearly half a million visitors of all ages, abilities, and backgrounds and serves as the base for our work. To support these important efforts, call 800-AUDUBON (800-283-8266) or visit [www.massaudubon.org](http://www.massaudubon.org).

