

I Think It Is A...

Objectives

- Participants will learn the parts of a bird
- Participants will learn techniques used to identify birds

Background

You are watching the bird feeder in your back yard, binoculars ready and at your side, waiting for the next bird to land at the feeder. Suddenly you see movement! Putting the binoculars to your eyes, making slight focus adjustments, you are now looking a beautiful red bird! Is it a Cardinal? Maybe it's a Summer Tanager? Or could it be a Purple Finch? How do you know? What do you look for to make sure you have correctly identified the bird at your feeder?

"Bird identification may seem frustrating at first, but once you have the basics down the process becomes easier and easier! Bird identification involves sorting through clues to arrive at the birds identity. It's a process of elimination in which you eliminate all the birds that are not the one you are looking for. Most of these clues — size, shape, color, habitat, and field marks — are visual. Sounds are also important and are a very effective method to identify birds" (Thompson, 1997). Once you gain enough confidence and experience, you will be surprised at how effective you are at using visual characteristics and songs to identify different birds. The more birds that you identify, the easier the process becomes.

Parts of a Bird

Knowing the parts of a bird is invaluable when it come to bird watching and identification. In the example above we viewed a red bird at our feeder. While this information is useful, what we really need to know is where the red coloring is located on the bird. To do this, we must know the parts of a bird.

If you have ever seen a chicken or a turkey, you are probably already familiar with many parts of a bird. You most likely know what the legs, feet, head, bill, breast, wings and tail look like.



Materials:

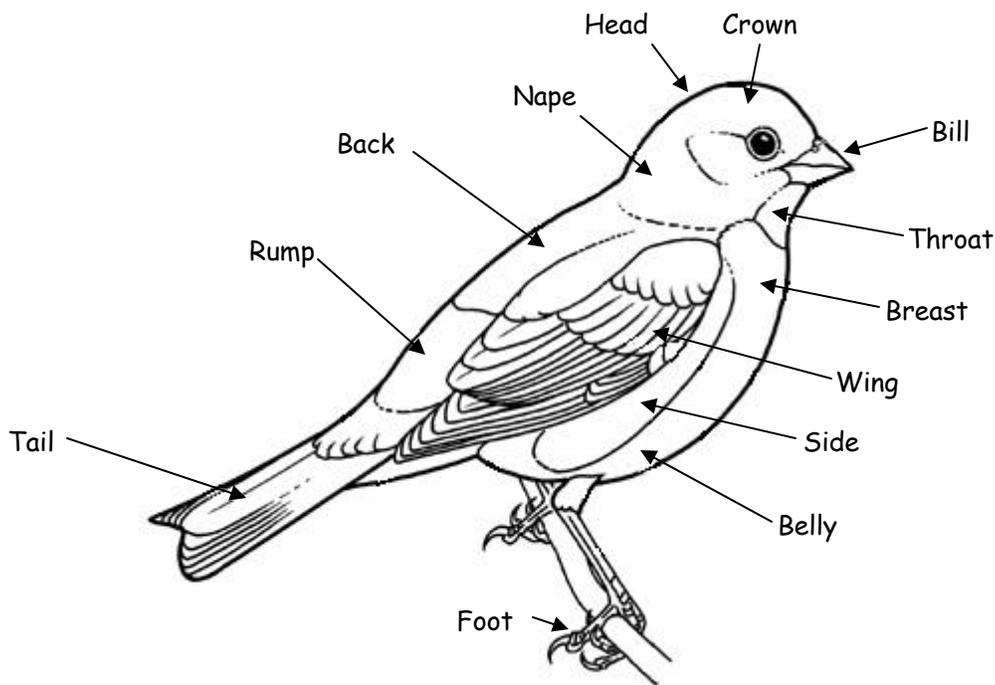
- Handout
- Field Guide

Life Skill:

- Learning to Learn
- Decision Making
- Problem Solving
- Critical Thinking
- Planning/
Organizing
- Keeping Records

Oklahoma State University, in compliance with Title VI and VII of the Civil Rights Act of 1964, Executive Order 11246 as amended, Title IX of the Education Amendments of 1972, Americans with Disabilities Act of 1990, and other federal laws and regulations, does not discriminate on the basis of race, color, national origin, gender, age, religion, disability, or status as a veteran in any of its policies, practices or procedures. This includes but is not limited to admissions, employment, financial aid, and educational services.

Issued in furtherance of Cooperative Extension work, acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture, Robert E. Whitson, Director of Oklahoma Cooperative Extension Service, Oklahoma State University, Stillwater, Oklahoma. This publication is printed and issued by Oklahoma State University as authorized by the Vice President, Dean, and Director of the Division of Agricultural Sciences and Natural Resources and has been prepared at no cost to the taxpayer.



Used with permission from the Cornell Lab of Ornithology's All About Birds web site:
www.allaboutbirds.org

Figure 1: Bird Parts

When you spot a bird, the first characteristics you see are important in helping to identify that bird! These characteristics, known as **Field Marks**, are unique characteristics and are useful in identifying one bird from another. Many times you are not able to make a quick identification and field marks allow you to narrow the possibilities and get you to the correct pages in your field guide.

Size

Size refers to the measurement of the bird from bill-tip to the end of the tail. Many bird watchers find it useful to compare the bird in question to a bird that you are familiar with. Is it larger or smaller than a robin? a sparrow? a hawk?

Shape

Shape is a great characteristic to use in bird watching. Is the body thin or fat? Is the tail long or short? Are the legs long or short? Is the bill short or long, thick or thin, long and broad, or hooked at the tip?

Habitat

Just as ducks prefer water and robins prefer grassy lawns, most birds prefer a specific habitat for feeding or nesting. It is also important to notice where in the habitat the bird is viewed. Is it on the ground or high in the tree? On a lake, does it remain close to shore or stay out in the middle?

Behavior

When you are watching a bird, try to note how it acts. How does the bird feed? Does it catch insects while in flight, or does it feed on the ground? Does it cling to the side of a tree like a woodpecker or swim in a lake as a duck? Does it walk or hop when it is on the ground? How does the bird fly? Does it undulate up and down like a woodpecker or spiral up in the sky like a hawk? Is the bird approachable or secretive?

Voice (Sounds)

For many birds, especially songbirds, the voice can be helpful in identification. Birds use **songs** to attract a mate or declare a territory. **Call notes** are used by birds for alarms and to stay in contact with each other.

Colors and Patterns

Colors are probably the most noticeable field marks for birds, but it is important to note where the color is located. Many birds have a colored head, throat, breast, or rump. Often these colors create distinct patterns such as streaks or spots. **Plumage** refers both to the layer of feather that cover a bird and the pattern, color, and arrangement of those feathers. The pattern and colors of plumage vary between species and subspecies and can also vary between different age classes, sexes, and season.

Of particular use in bird identification are the **field marks of the head** and **field marks of the wing**.

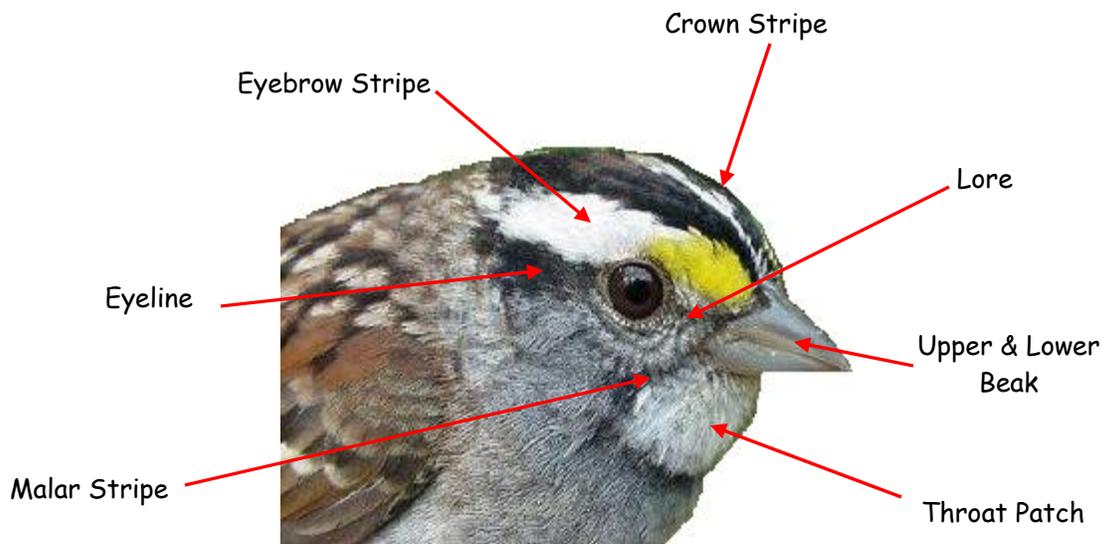


Figure 2: Field Marks of the Head of a White Throated Sparrow

Knowing the common field marks of the head will be useful as you begin learning to identify a bird,

Crown Stripe — the stripe in the midline of the head

Eyebrow Stripe — the line above the eye

Eyeline — the line that runs through the eye

Eyering — ring of color around the eye

Malar Stripe

Throat Patch

Beak— notice the color, shape and size

Lore — the area between the base of the beak and the eye

Does the bird have a ***crest*** ?

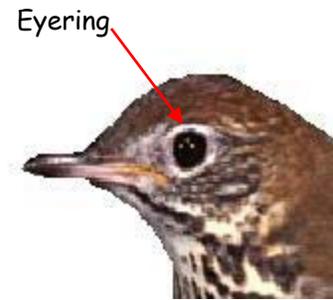


Figure 3: Eyering of a Wood Thrush

Crest present



Figure 4: Cardinal

Crest absent



Figure 5: White Crowned Sparrow

Wings

Bird wings are actually a collection of several different types of feathers (Figures 6a and 6b).

Flight feathers are separated into primaries and secondaries. The **primaries** are the outer flight feathers and are also the longest of the wing feathers. These are responsible for propelling the bird through the air. The **secondaries** are the inner flight feathers and located between the primaries and the body of the bird. They serve to sustain the bird while in flight, giving it lift.

Wing **coverts** are the small feathers at the front of the wing, covering the bases of the primaries and secondary flight feathers. These feathers are present on both the upper and lower surfaces of the wing. Coverts are also separated into primary and secondary coverts. The coverts serve to streamline the body, protect the wing feathers, and help to optimize the body temperature

Some bird species (particularly warblers and vireos) possess stripes that run across the shoulder of the wing. These stripes, called **wingbars**, can be useful in making positive identification.

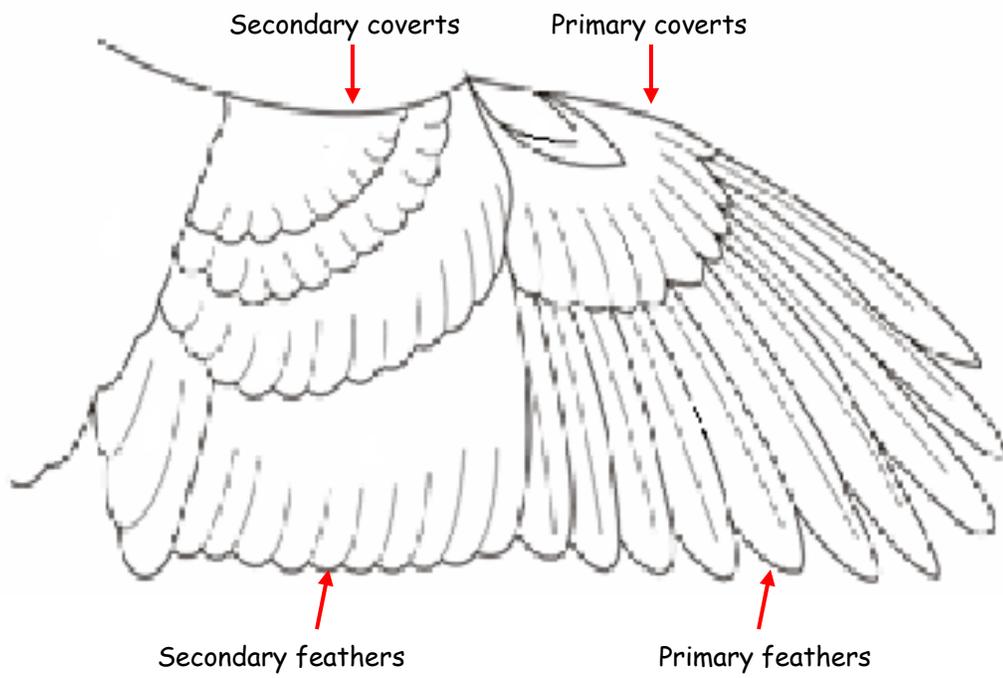


Figure 6a: Bird Wing

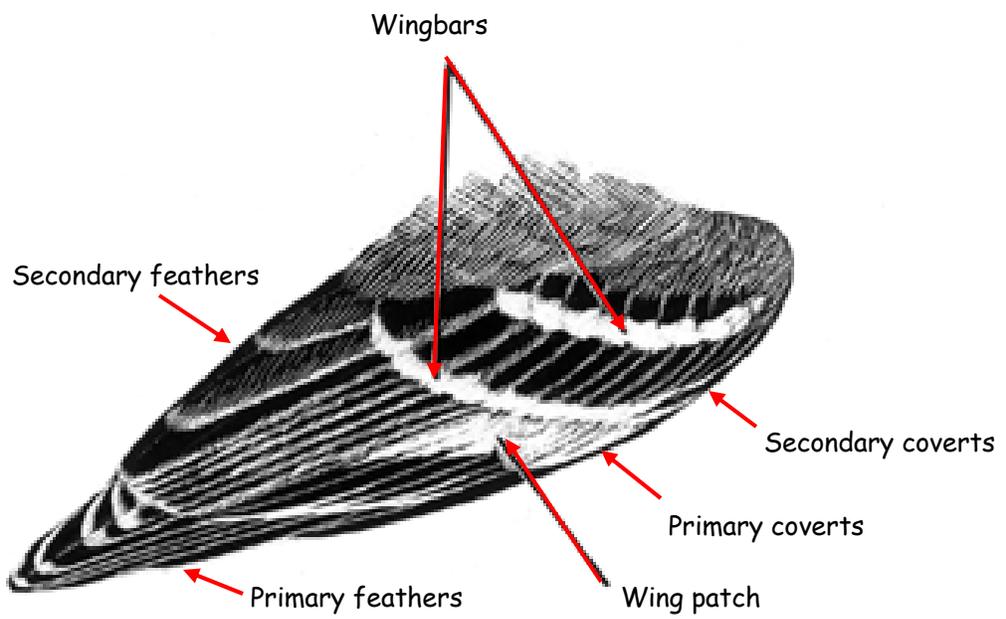


Figure 6b: Bird Wing

Tail

The tail is comprised of long feathers extending from the rear of the bird. Like the primaries and secondaries feathers of the wing, the tail feathers are considered flight feathers. These feathers are used in steering and balancing, acting as a rudder, which allows the bird to twist and turn in flight as well as a "braking system" prior to landing. The tail is also an asset used to attract potential mates

The **uppertail coverts** are relatively shorter feathers covering the upperside of the base of the tail. They originate on the rump and partially cover the tail giving it a "layered" look. The **undertail coverts** are feathers in a triangular area on the under-side of a bird between its vent and the base of its tail feathers. (See Figure 7)

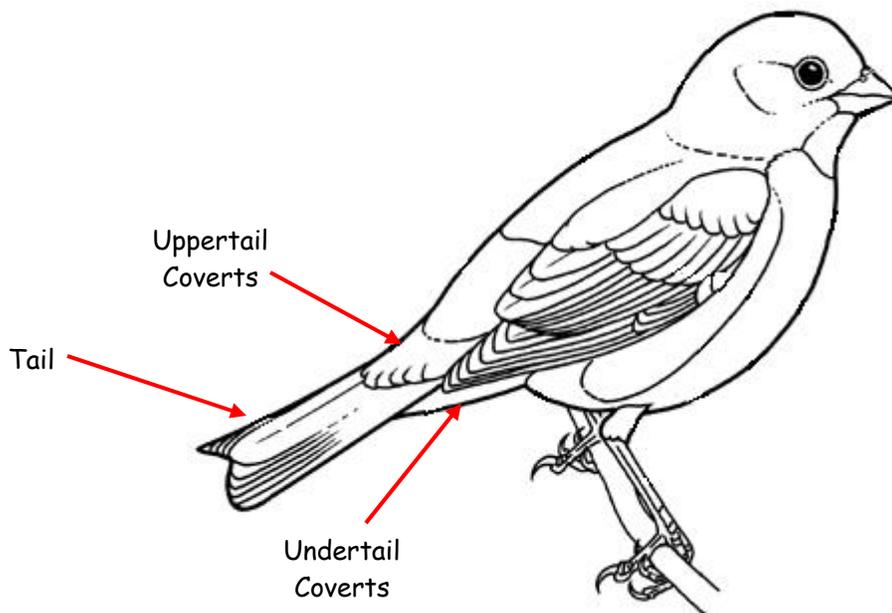


Figure 7: Bird Tail

Used with permission from the Cornell Lab of Ornithology's All About Birds web site: www.allaboutbirds.org

Bills and Beaks

Beaks and bills come in a variety of shapes and sizes, with each design being an adaptation to a specific methods of feeding.

Long, slender beaks of hummingbirds are useful for getting nectar from flowers



Long, thick, chisel-like beaks of woodpeckers are used for drilling into wood and chipping away tree bark.



Short, slender beaks are used for prying into tight places. Some examples include warblers, gnatcatchers, vireos and titmouse.



Short, stubby, powerful beaks are used for opening the shells of seeds. Sparrows, juncos, and finches are some examples.



Short, wide beaks, sometimes with hooked tips, are adapted for catching and holding onto flying insects. Flycatchers fall into this category.



Short, thick, curved, pointed beaks of eagles, hawks and owls have hooked bills to tear prey into bite-sized pieces.



Duck bills are fringed to strain plants, seeds, and small animals from mud and water

Shorebirds have long, thin bills that are used for jabbing at fish and into the mud. Herons and egrets are some common examples.



Activity Sheet I

Bird Identification

Below is a list of twenty birds that are commonly found in Oklahoma.

Use this to keep a record of when and where the specific bird was identified.

<input checked="" type="checkbox"/>	Species	Date Observed	Location
	American Robin		
	Bewick's Wren		
	Carolina Chickadee		
	Cliff Swallow		
	Dickcissel		
	Downy Woodpecker		
	Field Sparrow		
	Indigo Bunting		
	Lark Sparrow		
	Mallard		
	Mississippi Kite		
	Northern Bobwhite		
	Northern Cardinal		
	Northern Flicker		
	Northern Mockingbird		
	Red-tailed Hawk		
	Ruby-throated Hummingbird		
	Scissor-tailed Flycatcher		
	Tufted Titmouse		
	Western Kingbird		

Find a Bird

(activity for younger youth 5 to 8)

Submitted by:

Gerri Ballard

Extension Educator

Oklahoma Cooperative Extension

Bird watching with younger children can be an exciting and fulfilling experience. The trick is making sure that youth actually have the opportunity to "see" a bird. Nothing more is more frustrating for the kids and their leaders is to go bird watching and not see any birds! If you don't want to leave your outing to chance you may want to consider using the following activity.

Materials

Toilet paper rolls (2 per child)

Yarn

Small paper punch

Masking tape

Photo of Birds

Clothes pins

Clip boards or use stiff cardboard with binder clips

Pencils

Bird Tally Sheet

Bird Field Guide (Simple one for Children to use)

Do

Set up your Nature Walk area:

Locate photographs of birds seen most often in your area during the time of year you are conducting your bird watching session. One place to search is the photo gallery at birdsofoklahoma.net. Print the pictures in color and as close as you can to the size of the species you have selected (that will eliminate large birds). Laminate your photographs and clip them (using a clothes pin) in or around the habitat they would found in the area of your Bird Nature Walk. Information concerning the appropriate habitat can be found in your field guide.

Prepare your tally sheet.

Make Binoculars:

While younger children will definitely want to get their hands on a pair of binoculars, they may experience some difficulty learning to correctly use and focus the "real" thing. Have them make their own pair by using the toilet paper rolls. Tape 2 rolls together to create the objective lens tubes found on binoculars. Punch holes close to the top on the outside and tie yarn long enough to allow youth to hang the binoculars around their neck.

Take a Nature Walk:

Have the children work in pairs. Each pair should have binoculars and a clip board with a tally sheet and a pencil. This allows them to practice sharing and allows for the opportunity for one of the team members to be on the look out for birds while the other team member is recording. Set out to see how many birds they can find.

Once they have spotted the photos encourage them to continue to watch for real birds as well as the photos.

Reflect

As the children locate the photographs ask these questions:

Describe the Bird?

Can you name the Bird?

Try to find the Bird in the Field Guide?

Discuss the information found in the Field Guide.

Apply

Where do should we look for birds?

What can we learn by observing birds?

How do the play binoculars help us find birds?

What do you think the difference is between real binoculars and the play binoculars?

Other activities

Measure the distance from where you were standing to the first photograph spotted. Talk about the size of the bird.

Using the field guide look up the male and female Northern Cardinal. How are they alike? How are they different? Why?

Draw one of the birds you saw today.

Activity Sheet II

Find A Bird

Team members

Make a tally mark for each bird you find

Northern Cardinal	
Scissortail Flycatcher	
Eastern Blue Bird	
Blue Jay	
House Sparrow	
Mockingbird	
Other Birds	

Contributing Authors

Kevin Allen, Ph.D.

State Extension Specialist — 4-H Environmental and Natural Resources
Department of Natural Resource Ecology and Management

Dwayne Elmore, Ph.D.

State Extension Specialist — Wildlife
Department of Natural Resource Ecology and Management

References Cited

Cornell Laboratory of Ornithology, *All About Birds*. <http://www.birds.cornell.edu/AllAboutBirds>
Thompson, Bill, *Bird Watching for Dummies*. 1997

Photographs and Images

Line drawings (Figures 1 and 7) are used with permission from the Cornell Lab of Ornithology's All About Birds web site: www.allaboutbirds.org

All photographs used in this document, unless otherwise noted, are from the *U. S. Fish and Wildlife Service Digital Library System*: <http://www.fws.gov/dls/>

Selected Resources

American Birding Association: <http://www.americanbirding.org/>

Bird Line Art Illustration: http://www.inkart.net/art/wildlife_art/birds/

Birdnet: <http://www.nmnh.si.edu/BIRDNET/>

Birding.com: <http://www.birding.com/>

Birdingguide.com: <http://www.birdingguide.com/>

Birding for Beginners: [http://www.wildbirds.com/dnn/IdentifyBirds/BirdingforBeginners/
tabid/118/Default.aspx](http://www.wildbirds.com/dnn/IdentifyBirds/BirdingforBeginners/tabid/118/Default.aspx)

Birds Amore!: <http://www.birdsamore.com/index.htm>

Birds of Oklahoma: <http://www.birdsofoklahoma.net/photogaly.htm>

Birds of Oklahoma: <http://www.stevemetzphotography.com/galleries/Oklahomagaly.htm>

Cornell Laboratory of Ornithology: <http://www.birds.cornell.edu/AllAboutBirds>

Fernbank Science Center's Ornithology Web: <http://fsc.fernbank.edu/Birding/birdpage.htm>

Fledgling Birders: <http://www.fledgingbirders.org/index.html>

List of Oklahoma Birds: http://en.wikipedia.org/wiki/List_of_Oklahoma_birds

National Audubon Society: <http://www.audubon.org/>

National Aviary: <http://www.aviary.org/>

Oklahoma Birds Listserv Pictures: <http://www.suttoncenter.org/okbirdspix.html>

Ornithology: the Science of Birds: <http://www.ornithology.com/>

Percevia Search Engine and Bird Field Guide: [http://percevia.blogspot.com/2005/06/search-when-
-you-know-field-mark.html](http://percevia.blogspot.com/2005/06/search-when-you-know-field-mark.html)

U.S. Fish and Wildlife Service Digital Library System: <http://www.fws.gov/dls/>

Virtual Birder: <http://www.virtualbirder.com/vbirder/>

WhatBird.com: <http://www.whatbird.com/>