

Introduction to Local Bird Identification

Grades: 3-6

Time: 45-60 minutes

NGSS Connection: 4-LS1-1. Construct an argument that plants and animals have internal and external structures that function to support survival, growth, behavior, and reproduction.

In this lesson students will learn about bird anatomy and names of bird parts; be introduced to a few local birds; practice using field guides; and develop the skills needed to begin to identify birds in the field. Our Exploring Birds Kit is an excellent complement to this lesson (available for loan through our website).



Materials:

- Birds of Oregon field guides (*a class-set is available for loan by request*)
- Bird Parts diagram (below)
- Pictures of local birds
- Bird call recordings (optional; available on-line)

Exploring Birds Kit (optional; available for loan from LCEP)

Learning Objectives:

1. Students will be able to use vocabulary to describe parts of birds
2. Students will be able to use a bird guide to identify bird species
3. Students will compare and contrast similar birds

Introduction and background discussion:

Excellent resources for images and information of local birds and their calls can be found at:

The Cornell Lab of Ornithology's All About Birds website: <http://www.allaboutbirds.org>

Audubon's Guide to North American Birds website: <https://www.audubon.org/field-guide>

Share bird images with the class and challenge students to give a clear description of the bird. Which details would they include? How would they describe it to someone else? If they saw it again, would they be able to identify it? When learning to identify birds, no single characteristic can be used alone. Birds are identified through a variety of characteristics.

As a beginning birder, you will need to learn some common vocabulary. To start, distribute the Bird Parts diagram and Birds of Oregon field guides. The field guides have a section on Bird Basics including a diagram of bird parts for reference on page viii.

Activity (45 min.):

This activity allows students to practice observing bird parts and become familiar with the bird guide for identifying and describing birds.

To begin, have students spend time exploring the field guides to see how they are organized:

They are designed for right handed individuals (sorry south paws)

Place your right thumb on the top right corner of the book and thumb through the pages.

Notice the colors? That is how the book is organized.

As a group, have students practice identifying pairs of birds. Suggested bird pairs to use for this are listed below. Choose birds that are likely to occur where you are and as many pairs as time and interest allow. Place two bird pictures side by side using the doc cam or on the board. Ask students to use bird part vocabulary to describe what is similar and what is different between them. Can students find the birds in the field guide? Does everyone agree? Which bird parts are most important for correctly identifying these birds?

Have students complete several rounds of bird comparisons. You can also play bird call recordings for comparison. Some of the calls may sound familiar.

After practicing identifying birds as a group, assign students additional birds to identify on their own using the attached worksheet. Challenge students to first write down the bird's characteristics and then use the field guide to identify the bird. As a follow-up activity, have students head outdoors and spend a few minutes looking for birds around the schoolyard to identify.

Suggestions for local birds to compare:

1. Black-capped Chickadee and Chesnutt-backed Chickadee

Emphasized vocabulary: back and flank

Bird calls

Chestnut-backed is squeakier

Talking points

Chickadees sound as if they are saying their name. Listen to their chick-a-dee-dee-dee call. Researchers have discovered that when they make an alarm call, they will add additional dee-dee-dee's relative to the size and threat of the predator. Read more here <http://www.washington.edu/news/2005/06/23/chickadees-alarm-calls-carry-information-about-size-threat-of-predator/>

2. Steller's Jay and Scrub Jay

Emphasized vocabulary: crest, eye line, cheek

Bird calls

These two calls are fairly distinct.

Talking points

These are members of the corvid family which includes some of the most intelligent birds. Other clever-corvids are Crows and Ravens. Jays usually hang out in family groups with one bird taking on the job of watching for predators and warning the family of danger.

3. American Goldfinch and Lesser Goldfinch

Emphasized vocabulary: wing bar, cap, bill color

Bird calls

The flight call and flying pattern of the Goldfinch is sometimes referred to as the “potato-chip-dip”. This bird will call “po-tato-chips” and then “dip” in its undulating flight.



Talking points

They are seed eaters with strong conical bills used for cracking seeds. The American Goldfinch is Washington’s state bird.

4. Hairy Woodpecker and Downy Woodpecker

Emphasized vocabulary: bill size is the best way to identify these two

Bird calls

The Hairy has a more metallic. See if you can tell the difference.

Talking points

The bill on the Hairy is $\frac{3}{4}$ the size of its head if folded back on itself. The Downy’s bill is half the size of its head.

The feet on these birds have two toes that face forward and two that face backwards. This is called zygodactyl and is an adaptation that helps in climbing on trees. They also have a very stiff tail which also helps it to climb trees.

Woodpeckers have specialized tongues which are very long. They are attached above the eyeball and wind completely around their eye and out through their mouth. Their tongues are barbed which helps them grab their prey.

5. Varied Thrush and American Robin

Emphasized vocabulary: eye line, wing bars, and bill color

Bird calls

These calls are distinct and likely familiar.

Talking points

Thrushes have two voice boxes so they can harmonize with themselves.

6. Barred Owl and Spotted Owl (neither are in book but their descriptions can lead to their names)

Emphasized vocabulary: barring on breast, spots on breast

Bird calls

Barred Owl call can be reproduced if practiced

Talking points

Spotted Owls can lead to a discussion of forestry and the endangered species act. Habitat changes have led to the non-native Barred Owls taking over Spotted Owl territory in many places. Students may wish to discuss how they would handle spotted owl protection. For more info:

<http://news.nationalgeographic.com/news/2014/07/140717-spotted-owls-barred-shooting-logging-endangered-species-science/>

7. Bald Eagle and Osprey

Emphasized vocabulary: breast color

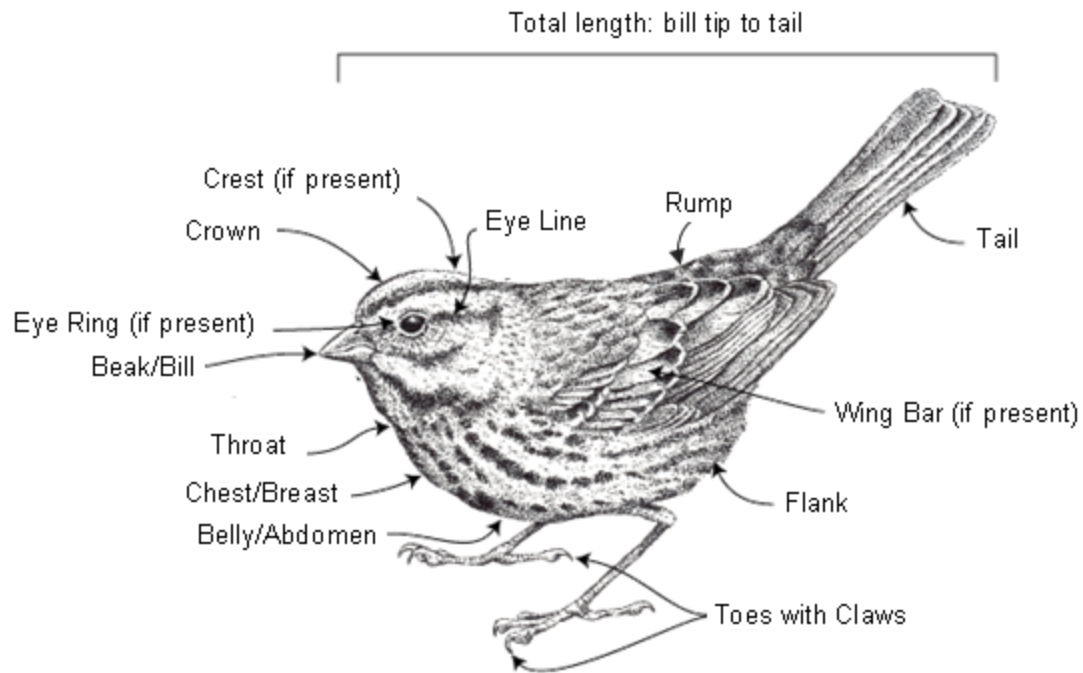
Bird calls

Try playing the Red-tailed Hawk call and the bald eagle call and have students guess which they think is the eagle. Movies and commercials often use the red-tailed hawks call to replace the eagles when showing images of eagles.

Talking points

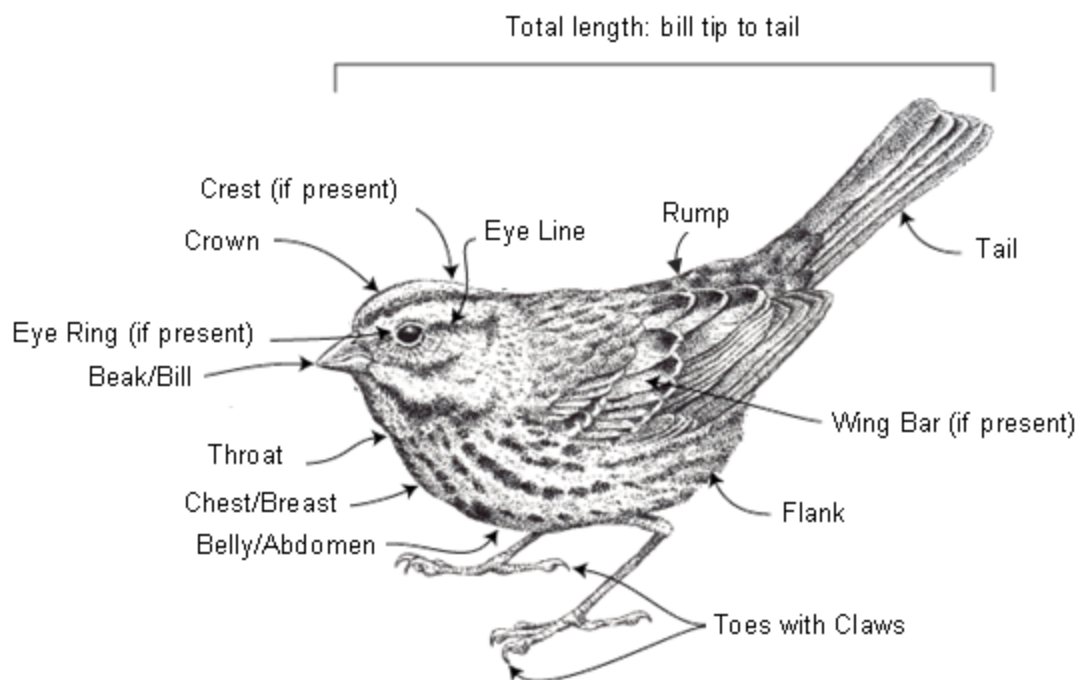
Ospreys are excellent at catching fish. The bald eagle will often wait for the osprey to make a successful catch and then swoop in and steal the fish mid-air. The osprey will not bother to fight back against this much larger foe.

Bird External Anatomy



Song Sparrow

Bird External Anatomy



Song Sparrow

Name: _____

Date: _____

Bird Identification Practice

Characteristics of bird – EXAMPLE: *Orange chest, thin dark bill, black eye line, white wing bars*

Which bird is this? *Bullocks Oriole*

1. Characteristics of bird:

Which bird is this? _____

2. Characteristics of bird:

Which bird is this? _____

3. Characteristics of bird:

Which bird is this? _____

4. Characteristics of bird:

Which bird is this? _____

5. Characteristics of bird:

Which bird is this? _____