



The Basics of Birding

Identifying Common South Texas Birds

Topic: Wildlife Techniques

Learning Objectives

1. Identify 3 bird species by common names.
2. Define field marks.
3. Learn to adjust and use binoculars.

Lesson Concept

Bird identification requires the use of binoculars and attention to detail by the observer.

TEKS

(4) Scientific Investigation & Reasoning (A) use appropriate tools to **collect, record,** and analyze information, including **journals/notebooks,** beakers, Petri dishes, meter sticks, graduated cylinders, hot plates, test tubes, triple beam balances, microscopes, thermometers, calculators, computers, timing devices, **and other equipment** as needed to teach the curriculum.

Grade: 6

Subject: Science

Time Required: 2 hours

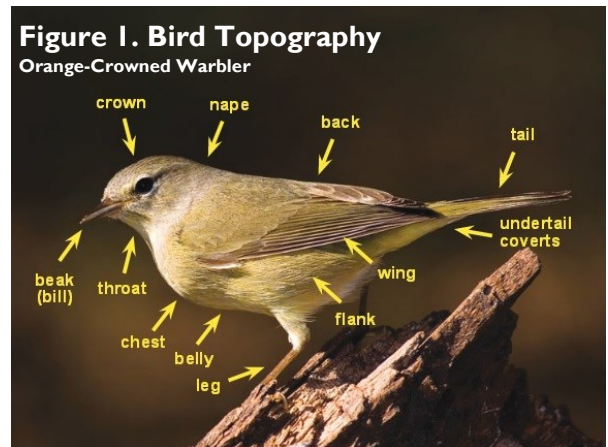
Group Size: Individual

Approx. Cost: \$0*



Birding is a hobby that encompasses bird watching, identification, and often recording the species and location in which you find them. To observe birds more closely, people use binoculars which allow you to zoom in and see the birds up close to look for identifying features. Many birders often carry with them a field guide such as Sibley's or Peterson's bird books that allow them to quickly look up a bird and aid in their identification. Guides provide images of birds in flight and stationary along with their seasonal ranges, identifying field marks, and other information.

Birds make up the class Aves and are classified by their scientific name which includes the genus and species. For example, the Orange-Crowned Warbler pictured to the right is called *Oreothlypis celata*. More often they are referred to by their common name which is used by the American Ornithologists' Union (AOU) to give each species an alpha code. The alpha code is usually made up of the first 2 letters of each word of the species' name. For the Orange-Crowned Warbler it is slightly different because of the hyphenated first word, the code is OCWA.



Learning to identify birds can be a challenging task. Using as many resources as you can will help aid the learning process. Studying is an important part of learning birds and it will take time and effort. When out in the field it is good practice to take notes and draw sketches of birds you are not quite sure of. Recognize distinct markings that stand out and can help you later on as you look through your bird guide. Create a memory snapshot of the birds in question, this will help you later! Happy birding!

Materials

EXPLORE #1:

- "Common South Texas Birds" PowerPoint

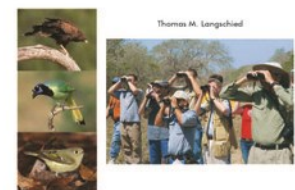
EXPLORE #2:

- "A Guide to Bird Watching and South Texas Wintering Birds" (1 copy/5 students) Pictured Right >>>
- "The Basics of Birding" Worksheet (1/student)
- Colored Pencils or Crayons (Class set)

EXPLORE #3:

- Binoculars (1/2 students)
- Field Notebook (1/student)
- Pencil (1/student)

A Guide to Bird-watching and South Texas Wintering Birds



A Special Publication of the Caesar Kleberg Wildlife Research Institute Texas A&M University-Kingsville

Special Publication No. 2 2011

FREE Download at:
<http://ckwri.tamuk.edu>

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Vocabulary

Resident: species that remains in that location throughout the year

Migratory: species that moves from one location to another during a certain part of the year

Field Marks: identifying physical characteristics of a bird

Nape: back of the neck

Flank: side part of the body

Undertail Coverts: feathers under the tail

AOU Codes: 4-letter alpha codes for common names of bird species (developed by the American Ornithologists' Union)

Teacher Background

Begin by recognizing common resident species such as Green Jays, Great-Tailed Grackles, Great Kiskadees, and others found in the CKWRI bird guide. Those are rather common that you can pick them up very quickly. Then you can move onto the rarities and migratory species. In this lesson, we are going to focus on identifying birds by sight and later as all birders know, you must move onto identifying by sound since many species can be quite secretive or hard to see in the brush.



Figure 2. Field Marks of Ruby-Crowned Kinglet and Lincoln's Sparrow (Inset)

Observing the location of the bird (on the ground or in a tree) or

even their behavior can help you ID a bird faster, but first let's focus on the appearance. To identify species you must look for specific "field marks" such as eye rings, wing bars, crown color, nape color, etc. For example in figure 2, the Ruby-Crowned Kinglet (RCKI) is light brown/olive in body color and has a distinct white eye ring. The lower wings are slightly yellow with a white wing bar right above the yellow. Its name also signifies another field mark, a ruby crown, but this is hardly ever seen in the field. Other important features to notice are the beak and leg/feet color of the bird. Eyes may also be a particular color as well. Be sure to note all these features so you can refer back to them when looking through a field guide. Most of all be patient, bird ID takes practice. Refer to the CKWRI guide introduction for more in-depth explanations and to the PowerPoint for common So. Texas birds with labeled field marks.

Engage

Take students outside to an area with trees or bushes

So what do you notice out here? (Trees, benches, etc., birds)

What about the birds? Do they all look the same? (They're flying around the tree/within the bushes.....Yes/No)

-If yes: Do you know what those are called? Are they all hanging out together? (No.....Yes, are they a family?)

**become familiar with the species around your school beforehand and identify the bird species for the students*

-If no: What's different about them? (Their color/size/etc.)

Did you know that surrounding you there are hundreds of different types of birds? We only see a few here but because of the location of where we live many different birds move through our state.

How many birds can you name? (Students raise their hands or shout out names/numbers...)

Well today we are going to learn some of the birds here in South Texas you may see right outside your window. Let's head back inside to get started!

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Procedure

TEACHER	STUDENT	CONCEPT
<p>EXPLORE #1: (15 minutes) Display “Common South Texas Birds” PowerPoint on the projector.</p> <p>Go through each species, allowing students to participate in naming the bird if they have a guess. Present the common name and AOU code to the students. Point out field marks on each species (for example: eye ring on Mourning Dove, eye stripe on Great Kiskadee, crest on Northern Cardinal)</p> <p>After each species is covered, you can go back through each of the photos to practice again.</p> <p>EXPLORE #2: (45 minutes) Pass out a set of crayons or colored pencils for students to share along with a copy of “A Guide to Birdwatching and South Texas Wintering Birds”.</p> <p>Pass out one worksheet per student and have students read the directions and complete the worksheet.</p> <p>Remind students what a field mark is or ask them. Students will be drawing and coloring a few of the common species while labeling field marks.</p> <p>EXPLORE #3: (1 hour) Guide students outside for bird observations. Have each student take a pencil, field notebook/paper, and their shared binoculars.</p> <p>Point students to groups of trees to go and observe birds, if no trees are available, a good place to start is by looking in the cafeteria area or outdoor lunch area. Birds love food scraps!</p> <p>Identify birds seen by their common name and have students begin to tally the number per species that they see.</p> <p>Encourage dialogue back and forth between students in the class. Have them discuss each bird and call out their field marks.</p> <p>WRAP UP & FOLLOW UP: End the exploration components with repeating the “Common South Texas Birds” PowerPoint. Allow students to record the bird species (by common name) shown in each picture and have students compare answers (THINK-PAIR-SHARE). For retention, one week later show them the PowerPoint again and see if they remember!</p>	<p>“Is that a dove?”</p> <p>“Something on the bird that helps you identify it?”</p> <p>“Look there’s a red bird!” “Is that a cardinal?” “It has the crest and black face.” “It also has the red-orange bill!”</p>	<p>South Texas consists of a diverse number of bird species and each have their own characteristics that make them identifiable.</p> <p>Attention to detail is key when identifying birds.</p> <p>Observations are a key step in the scientific method.</p>

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Assessment

Pre-Assessment

Identify 3 birds by common names. (Objective 1)

Activity Embedded Assessment

Define field marks for common bird species of South Texas. (Objective 2)

Learn to use binoculars for bird identification and observation. (Objective 3)

Post-Assessment

Identify common South Texas birds by photos provided in PowerPoint (Materials). (Objective 1)

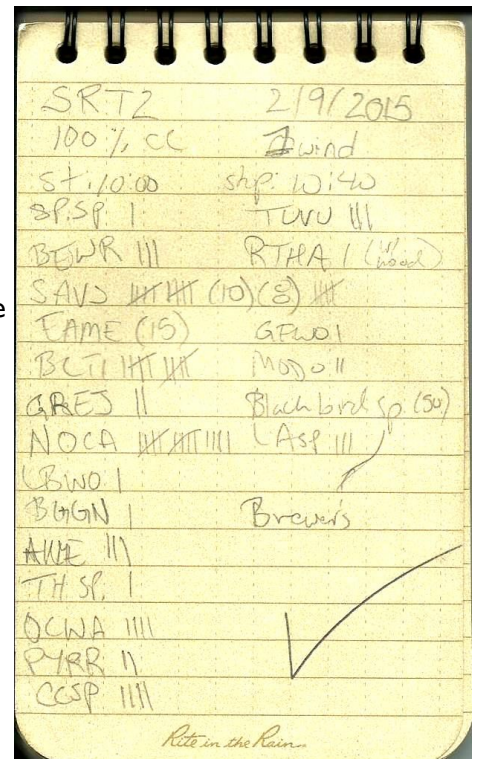
Activity Extensions

Every month you can increase the number of birds to identify. Beginning with the 3 birds selected in this lesson for you to focus on, you can expand to an additional 5. By the end of two months students will know 8 species. They will be expert birders in no time!

Activity Scaling

For younger students, begin by identifying only 3 species. It would probably be best to stick to the 3 most commonly found in your area or the 3 most unique looking species.

For older or advanced students, for the 5 species learned, have students memorize the AOU codes for each species. When out observing have them write codes and tally the number of individuals seen of each species (like the field notes to the right, you can also test them on their AOU codes by asking how many Northern Cardinals were seen during this survey, etc.). Repeat observations or surveys over the course of 3-5 days, whatever works best for the class' schedule. Using Excel, have students plot out the number of individuals of each species seen over time. You can have students develop hypotheses and see if their data supports or rejects the hypothesis.



Donations*

- Local Audubon chapters may have funding available to help you with needed birding equipment. Be sure to mention you are a teacher teaching ___ grade and explain how the equipment would help supplement your classroom activities and learning.
 - Contact a local university's wildlife department and ask if they have any old class sets of binoculars lying around that they wish to donate. It's worth a shot!
 - Contact Texas Parks & Wildlife for funding opportunities in the GK-12 setting.
 - Hard copies of the "**Guide to Bird-Watching and South Texas Wintering Birds**" can be requested by emailing Dr. April Conkey (april.conkey@tamuk.edu).
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References

A Guide to Bird-Watching and South Texas Wintering Birds, Thomas Langschied
The Sibley Guide to Birds 2nd Ed., David Allen Sibley

Contact Information

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