



ACTIVITY 2

Ranch Bird Beaks



RANCH LIFE SERIES | BOOK 3 | RANCH WILDLIFE

Chapter 3

Content Area

Science

Topic

Structure and Function

Objective

Students will learn how differently shaped bird beaks affect what food the bird consumes.

Texas Essential Knowledge and Skills (TEKS)

3.10A, 4.10A, 5.10A





Ranch Bird Beaks

CONTENT AREA: Science

TOPICS: Structure and Function

READING STRATEGY: Twelve Square Chunking

This activity chunks the information from the reading in a student friendly way. The movement between sections allows for students to have a break from the reading and minimizes reading fatigue. The before, during, and after reading assignments help focus readers and strengthen comprehension of the material.

1. Students will fold a blank sheet of paper into twelve squares.
2. The four columns will be labeled: Doves and Quail, Wild Turkeys, Birds of Prey, and Buzzards.
3. The three rows will be labeled: Before, During, After.
4. Before reading chapter 3, students should fill in the “before” row with everything they know about the birds listed on their paper.
5. After most students have completed the task (1-2 minutes), they will read the section about doves and quails (p. 16-23). While reading silently, students should be taking notes in the “during” section which is the middle row of their paper.
6. When students have completed reading the Dove and Quail section and their notes are filled in, they should stand up. Once all students are standing, they will go find a partner. Students will review each other’s notes and add any information not included on their paper in the last row labeled “after”.

	Dove & Quail	Wild Turkeys	Birds of Prey	Buzzards
before				
during				
after				

This process will be repeated for each section of the reading.

ACTIVITY MATERIALS:

- Blank sheet of paper: 1 per student
- Ranch bird information cards (page a2 - 4): 1 bird card per station
- Ranch bird score sheet (page a2 - 5): 1 per student
- 9 Oz cup: 1 per student
- 4 Grocery plastic bags to use for trash at each station
- Tools: 4 tweezers, 4 halved skewers, 4 scissors, 4 nutcrackers
- Mourning dove station set up: 1 of each tool, pan containing whole sunflower seeds
- Wild turkey station set up: 1 of each tool, pan containing sunflower seeds, rice, and gummy worms
- Quail station set up: 1 of each tool, pan containing whole pecans and whole sunflower seeds
- Hawk station set up: 1 of each tool, 4 pans containing a prey (dowel rod wrapped in clay)
- The bottom line (page a2 - 6): 1 per student or student table group



Ranch Bird Beaks

ACTIVITY INSTRUCTIONS:

1. After reading chapter 3, students will role play what it is like to hunt food as each bird they studied during the reading.
2. Students should be divided into groups of four. Give each student a cup and have them move to a bird station.
3. At the bird station, students will find an information card, “beak” tools, and a pan with simulated food. Students should be instructed to pick a tool.
4. Students will have 30 seconds to gather food.

Rules:

- Students cannot use their hands to touch the food.
 - Food must be gathered one piece at a time and dropped into the cup (bird stomach).
 - If food is dropped or dragged it goes back in the pan.
 - Seeds must be opened before going in the stomach (cup).
 - The cup must remain flat on the table.
5. When the teacher calls time, students record how many pieces of food they collected on their record sheet.
 6. Direct students to discuss their results and complete the Team Score table. Have students analyze their results and try to figure out which tool was the best model for the bird beak.
 7. They should find the following combinations: Dove-tweezers, Wild Turkey-halved skewers, Quail-nut cracker, and Hawk-scissors. *Do not announce the best model to the class until the end of the activity.
 8. Once the score sheet has been completed for the station, students should discard the food collected in their cup and reset the station for the next group.
 9. When the signal is given, students will move to the next bird station and repeat the instructions.

STUDENT SKILLS ASSESSMENT:

- Have students (or student groups) complete THE BOTTOM LINE worksheet at the end of the activity.

Ranch Bird Beaks



SECURITY BRIEFING –

WORDS OF WISDOM FROM HANK THE COWDOG:

*Birds can be a good source of fun on the ranch. I mean...you can chase them, scare them, and they hardly ever retaliate...unless we are talking about the **Mississippi Kite** – those guys do not have a sense of humor! Of course, **buzzards** are not a bird to mess with either, because they eat disgusting things and you wouldn't want to ruin your reputation.*

Well...now that I think about it...only some birds on the ranch are fun. As the Head of Ranch Security, I try to understand all the critters on the ranch and sometimes the best way to do that is to "walk in its shoes for a day." Of course, birds don't wear shoes, but you know what I mean. Loper brings me my food every day in a bowl, but birds are not so lucky. For this activity, you are going to become a bird and see what it is like for birds to find food on the ranch.

ACTIVITY INSTRUCTIONS:

After your teacher has assigned you to a group and Ranch Bird Station, you will use your notes, pencil and supplies given to you by your teacher to complete the following instructions:

1. *Read the provided RANCH BIRD BEAKS - INFORMATION CARD at your bird station. Each student selects one tool each to be a "beak." Students will have 30 seconds to use this tool to pick up "food" from the pan, and transfer it to the bird's "stomach" (9 oz. cup).*

You must follow these rules to complete the activity:

- *Do not use your hands to touch the food. Use the tools only.*
 - *Food must be gathered one piece at a time.*
 - *If food is dropped or dragged, return it to the pan and try again.*
 - *Seeds must be removed from the shell before being placed in the cup.*
 - *The cup must remain flat on the table.*
2. *When your teacher calls time, record with your pencil how many pieces of food you collected on the top chart of the SCORING SHEET. Then, compare your results with your group members by recording everyone's results on the bottom chart of SCORING SHEET.*
 3. *Discard the collected food in the plastic grocery sack trash bag and reset the station.*
 4. *When the signal is given, student groups will rotate bird stations until all have been completed.*

WRAP UP:

Fill out THE BOTTOM LINE worksheet after you have completed the activity.





MOURNING DOVE



Beak

- short
- thin

Food Sources

- seeds
- wild grasses
- weeds
- herbs
- berries (occasionally)



BOBWHITE QUAIL



Beak

- short
- stout

Food Sources

- seeds
- leaves
- acorns
- insects (summertime)



WILD TURKEY



Beak

- long
- thin
- curved

Food Sources

- seeds
- leaves
- nuts
- berries
- salamanders
- snails
- insects



AMERICAN KESTREL



Beak

- short
- sharp
- curved

Food Sources

- small birds
- small rodents

Ranch Bird Beaks



NAME: _____ DATE: _____

SCORING SHEET

1. Record your data from each station on your individual score card (*top chart*).
2. Compile results from all group members to complete the group's score card (*bottom chart*) after each round.

MY SCORE CARD				
	Mourning Dove	Bobwhite Quail	Wild Turkey	American Kestrel <small>(Food chunks must be over 3cm)</small>
TOOL USED				
Number of Food Items Gathered				
Did it survive? <small>(3 items or more)</small>				
Did it reproduce? <small>(6 items or more)</small>				

- ★ Put a STAR next to the results of 3, 4 or 5
- Draw a CIRCLE around the number 6 or larger

MY GROUP'S SCORE CARD				
	Mourning Dove	Bobwhite Quail	Wild Turkey	American Kestrel <small>(Food chunks must be over 3cm)</small>
TOOL USED	NUMBER OF FOOD ITEMS GATHERED			
scissors				
tweezers				
halved skewers				
nutcracker				

- ★ Put a STAR next to the results of 3, 4 or 5
- Draw a CIRCLE around the number 6 or larger

Ranch Bird Beaks



NAME: _____ DATE: _____

THE BOTTOM LINE

Answer the questions below.

1. After reading the INFORMATION CARDS and comparing the different beak descriptions with the calculation results on your SCORING SHEET, which tool best represented the beak of:

Mourning Dove _____

Bobwhite Quail _____

Wild Turkey _____

American Kestrel _____

2. How does each unique bird beak help it get its food? Explain your answer and give examples.

3. Read over the results of your GROUP'S SCORE CARD. When the tool was used that was the best model of that bird's beak, did the bird survive?

Mourning Dove Yes No

Bobwhite Quail Yes No

Wild Turkey Yes No

American Kestrel Yes No

4. When looking at your GROUP'S SCORE CARD, did you or a teammate have any data that surprised you? Explain your answer.

