



RANCH LIFE SERIES WITH HANK THE COWDOG

BY JOHN R. ERICKSON

Illustrations by Gerald L. Holmes



– BOOK 3 –

RANCH WILDLIFE

Activity Guide

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Howdy, educators! Welcome to the Activity Guide for BOOK 3: RANCH WILDLIFE of the RANCH LIFE SERIES WITH HANK THE COWDOG by John R. Erickson.

The following pages contain science and social studies activities along with reading strategies designed to coordinate with chapters in the book. These 9 activities can be treated as stand-alone supplement/enrichment activities for your classroom curriculum OR can be taught sequentially as a total Ranch Life unit. Activities can be completed by individual students or within student groups with no minimum/maximum number of students required.

Instructions on how to use this Activity Guide can be found on the following page.

BONUS MATERIALS can be found at ranchlifelearning.com and includes downloadable PDFs of resources provided as master copies in this book. *(Please note: All PDF resources must print at 100% not fit to page.)*

We would like to acknowledge Rowdy White for wildlife photos, Avery Hodges for wildlife drawings and Maverick Books for illustrations.

— To Use This Guide —

BOOK 3: RANCH WILDLIFE



1. Each lesson is separated by an **ACTIVITY DIVIDER**, a tabbed, quick-reference that includes:
 - Activity Number & Title
 - Ranch Life Book Number/Chapter Reference for Activity
 - Content Area
 - Topic(s)
 - Objective(s)
 - Texas Essential Knowledge and Skills (or TEKS)
2. An **EDUCATOR GUIDE** that includes for each activity:
 - A Materials List
 - Instructions for Educator
 - Reading Strategy
3. A **SECURITY BRIEFING** - student instruction sheet presented as “Words of Wisdom” from Hank the Cowdog. This sheet includes an overview of the activity, including any key words/phrases and additional instructions. It can be used as a station card for students working in groups.
4. **RESOURCES** - master copies for activity preparations (*referenced in ALL CAPS within activity instructions*), also available for PDF download at ranchlifelearning.com.
5. **THE BOTTOM LINE** - student worksheet to be completed at the end of the activity (*either individually or in small groups*).

Want more?

Visit ranchlifelearning.com for additional Ranch Life Series with Hank the Cowdog educational resources, including instructional videos and sample projects.

About the Activity Guide Authors

Educators Michelle Sedberry and Jenny Gaona are the creative minds behind this guidebook. Michelle Sedberry is a science specialist and Jenny Gaona is a social studies specialist. Jenny and Michelle have a combined 40 years of experience in the classroom and designing curriculums and classroom activities for their content areas of expertise. The cross-curricular chemistry between these two master educators makes this guidebook a one-of-a-kind resource for educators.

Julie Hodges, Helen DeVitt Jones Endowed Director of Education at the National Ranching Heritage Center, served as editor.



SPECIAL THANKS TO THE HOUSTON LIVESTOCK SHOW AND RODEO



ACTIVITY 1

Animals 9 May Have to Rescue Plato From



RANCH LIFE SERIES / BOOK 3 / RANCH WILDLIFE

Chapter 2

Content Area

Science

Topic

Animal Traits, Habitats and Behaviors

Objective

Students will identify traits, habitats, and behaviors for large ranch animals.

Texas Essential Knowledge and Skills (TEKS)

2.13B, 3.13A, 4.13AB, 5.13AB





Animals I May Have To Rescue Plato From

CONTENT AREA: Science

TOPIC: Animal Traits, Habitats and Behaviors

GAME MATERIALS:

- ANIMALS I MAY HAVE TO RESCUE PLATO FROM - CARDS, two sets per page (page A1 - 3): 1 set per student table group
- ANIMALS I MAY HAVE TO RESCUE PLATO FROM - SORTING MAT (page A1 - 4): 1 per student table group
- ANIMALS I MAY HAVE TO RESCUE PLATO FROM - SORTING MAT KEY (page A1 - 5): 1 per student table group
- THE BOTTOM LINE (page A1 - 6): 1 per student or student table group

COMBINED READING STRATEGY & ACTIVITY INSTRUCTIONS:

1. Each group will need a set of ANIMALS I MAY HAVE TO RESCUE PLATO FROM - CARDS and an ANIMALS I MAY HAVE TO RESCUE PLATO FROM - SORTING MAT.
2. Students will read Chapter 2, pages 2-15.
3. As students are reading, they will look for each animal's habitat, traits, and behaviors within the chapter. Once they identify one of these components, they will find the matching card and place it on the SORTING MAT.
4. Once all groups have completed their sorting, have groups volunteer to share their answers and discuss any information that is different. Remind students, opposing ideas should be grounded in evidence from the chapter.

STUDENT SKILLS ASSESSMENT:

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

Animals I May Have To Rescue Plato From



SECURITY BRIEFING –

WORDS OF WISDOM FROM HANK THE COWDOG:

Being the head of ranch security is a big job! As you can imagine, I must know a lot of information about the ranch and the many **animals** on and around the ranch. If you are going to be my deputy, here on Loper's ranch, you are going to have to learn a few things about the large animals we have on the ranch. For example, if you need to find one of these animals you need to know their **habitat** and how to identify the animals. If you know the **inherited traits** for the animal, it makes identification a breeze. No matter where you are, each **species** of animal has unique traits that will help you identify them by observable **characteristics**. The last thing you need to understand about large animals are their **behaviors**. Some large animals are gentle giants and others, like the Longhorn you learned about during Ranch Life Series book 1: Ranching and Livestock, can be a bit frisky and downright mean! Handling those critters should only be done by a trained professional like myself.

ACTIVITY MATERIALS:

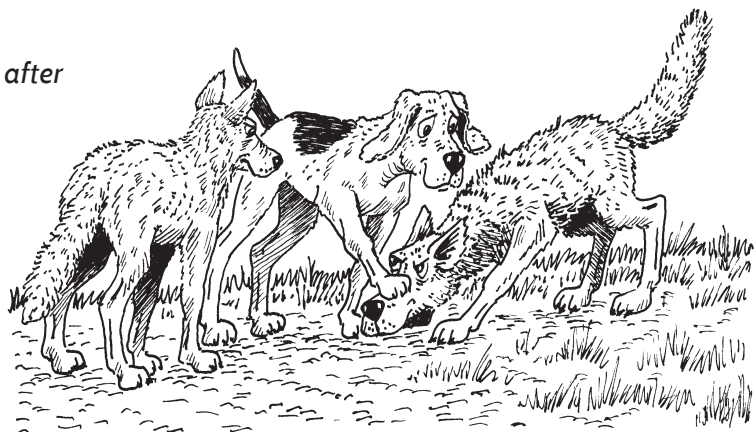
- LARGE ANIMAL SORTING CARDS
- LARGE ANIMAL SORTING MAT
- THE BOTTOM LINE

ACTIVITY INSTRUCTIONS:

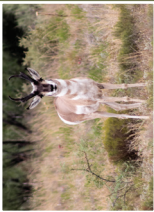
1. Your group will need a set of LARGE ANIMAL SORTING CARDS and a LARGE ANIMAL SORTING MAT.
2. As you read, look for each animal's habitat, traits, and behaviors within the chapter. Once you identify one of these components, find the matching card and place it on the sorting mat.
3. Once your group has completed the sorting mat, check your answers. Your information will be shared with your classmates during a discussion led by your teacher.

WRAP UP:

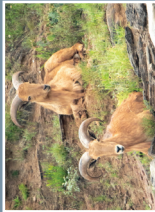
Fill out THE BOTTOM LINE worksheet after you have completed the activity.



All Terrains		PRONGHORN ANTELOPE	Eats Vegetation (flowers, shrubs, bushes & tomatoes)	White Tail	Antlers Are Kept Year Round
Flat, open country		DEER	Large Body (300-400 lbs.)	Large Body (300 lbs.)	Jumps Over Fences
Rough country with deep canyons		AOUDAD SHEEP	Scoots Under Fence	Big Curled Horns	Has Large Litters
Rough, rocky terrain		FERAL HOG	Sandy Brown Coat	Eats Vegetation, (roots, grains, nuts, grain, eggs & small animals)	Long Ears Like a Mule
Fast Runners		Shy	"Beard"	Good Eyes	Camouflage
Root and Dig Up Food	Horns Are Shed	Response to Danger: FIGHT	Nocturnal	Long Tusks	Response to Danger: FLIGHT or FREEZE
All Terrains		PRONGHORN ANTELOPE	Eats Vegetation (flowers, shrubs, bushes & tomatoes)	White Tail	Antlers Are Kept Year Round
Flat, open country		DEER	Large Body (300-400 lbs.)	Large Body (300 lbs.)	Jumps Over Fences
Rough country with deep canyons		AOUDAD SHEEP	Scoots Under Fence	Big Curled Horns	Has Large Litters
Rough, rocky terrain		FERAL HOG	Sandy Brown Coat	Eats Vegetation, (roots, grains, nuts, grain, eggs & small animals)	Long Ears Like a Mule
Fast Runners		Shy	"Beard"	Good Eyes	Camouflage
Root and Dig Up Food	Horns Are Shed	Response to Danger: FIGHT	Nocturnal	Long Tusks	Response to Danger: FLIGHT or FREEZE

ANIMAL  NAME	HABITAT DESCRIPTION INHERITED TRAIT
ANIMAL  NAME	HABITAT DESCRIPTION INHERITED TRAIT

Animals I May Have To Rescue Plato From - Sorting Map

ANIMAL  NAME	HABITAT DESCRIPTION INHERITED TRAIT
ANIMAL  NAME	HABITAT DESCRIPTION INHERITED TRAIT

Animals I May Have To Rescue Plato From



NAME: _____ DATE: _____

THE BOTTOM LINE

Complete the following questions based on the information you learned during the sorting activity.

1. What similarities did the animals on the sorting mat have in common?

2. What differences did the animals have on the sorting mat?

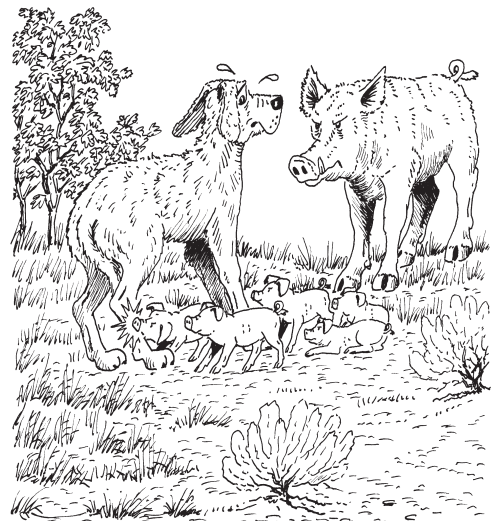
3. For each animal, list one characteristic that helps it survive in its habitat.
 - a. Pronghorn Antelope:

 - b. Feral Hog:

 - c. Deer:

 - d. Aoudad Sheep:

4. Do you think that learned behaviors or inherited traits are more valuable for survival on the ranch?
Explain your answer.





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)

3.13A, 4.13A, 5.13A





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 (Food chunks must be over 3cm)
TOOL USED				
Number of Food Items Gathered				
Did it survive? (3 items or more)				
Did it reproduce? (6 items or more)				

- ★ 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 (Food chunks must be over 3cm)
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?

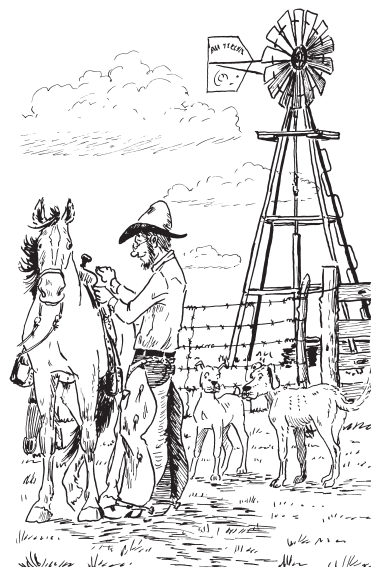
Mourning Dove ☐ Yes ☐ No

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.





ACTIVITY 3

Rank for Hank: Large Animals & Birds



RANCH LIFE SERIES / BOOK 3 / RANCH WILDLIFE

Chapters 2 & 3

Content Area

Science & Social Studies

Topic

Animal Impact on Natural Resources

Objective

Students will study and assign value to animal contributions in a ranch's ecosystem and economic success.

Texas Essential Knowledge and Skills (TEKS)*

3.12A, 5.12AC & 1.9B, 1.16B, 2.7A, 2.15B, 3.15E, 4.11B, 4.19B, 5.12B, 5.23B





Rank for Hank: Large Animals & Birds

CONTENT AREA: Science & Social Studies

TOPICS: Animals' Value to the Ranch Ecosystem and Economics of a Ranch

ACTIVITY MATERIALS:

- RANK FOR HANK DATA RECORDING SHEET (PAGE A3-3): 1 PER STUDENT OR STUDENT TABLE GROUP
- NOTES: RANK FOR HANK (PAGE A3 - 4): 1 PER STUDENT

READING STRATEGY:

- Review the terms "economic value" and "ecosystem value" with your students. Create a word wall or visual reference for students to refer to during the reading.
- The teacher can read aloud or have students read aloud with a group or partner. Every time you read something that has an animal gain or lose value (economic or in the ecosystem), write it down in your notes under that animal.

ECOLOGICAL VALUE: On a ranch, ecological value is determined by the contribution of a species (*plant or animal*) to the healthy preservation of the ecosystem (*how organisms coexist with one another*).

EXAMPLES: Healthy grass is EXTREMELY VALUABLE to the ranch's ecosystem because it is needed to nourish and grow wildlife populations, such as cattle. Cattle grub insects would be VERY DESTRUCTIVE to the ranch's ecosystem because they can be fatal to a cattle population.

ECONOMIC VALUE: On a ranch, economic value is determined by the contribution of a species (*plant or animal*) to the *financial benefit* gained or lost in the business of ranching. Wildlife presence/behavior, the weather, and natural disasters greatly impact this value.

EXAMPLE: Healthy grass is EXTREMELY VALUABLE to a ranch's economics because it strengthens the goods and services of the ranch (it feeds cattle, improves the landscape, and provides natural wildfire management).

ACTIVITY INSTRUCTIONS:

1. Each student or student group needs a page to write down notes.
2. Read the chapter aloud to your students.
3. As the teacher reads, students record gains and losses of value for each animal on the ranch.

STUDENT SKILLS ASSESSMENT:

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

Rank for Hank: Large Animals



SECURITY BRIEFING –

CONTENT AREA: Science & Social Studies

TOPICS: Animals' Value to the Ranch Ecosystem and Economics of a Ranch

ACTIVITY MATERIALS:

- RANK FOR HANK DATA RECORDING SHEET (PAGE A3-3): 1 PER STUDENT OR STUDENT TABLE GROUP
- NOTES: RANK FOR HANK (PAGE A3 - 4): 1 PER STUDENT

READING STRATEGY:

- Review the terms “economic value” and “ecosystem value” with your students. Create a word wall or visual reference for students to refer to during the reading.
- The teacher can read aloud or have students read aloud with a group or partner. Every time you read something that has an animal gain or lose value (economic or in the ecosystem), write it down in your notes under that animal.
-
- **ECOLOGICAL VALUE:** On a ranch, ecological value is determined by the contribution of a species (*plant or animal*) to the healthy preservation of the ecosystem (*how organisms coexist with one another*).
-
- **EXAMPLES:** Healthy grass is EXTREMELY VALUABLE to the ranch's ecosystem because it is needed to nourish and grow wildlife populations, such as cattle. Cattle grub insects would be VERY DESTRUCTIVE to the ranch's ecosystem because they can be fatal to a cattle population.
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- **ECONOMIC VALUE:** On a ranch, economic value is determined by the contribution of a species (*plant or animal*) to the financial benefit gained or lost in the business of ranching. Wildlife presence/behavior, the weather, and natural disasters greatly impact this value.
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- **EXAMPLE:** Healthy grass is EXTREMELY VALUABLE to a ranch's economics because it strengthens the goods and services of the ranch (it feeds cattle, improves the landscape, and provides natural wildfire management).

ACTIVITY INSTRUCTIONS:

1. Each student or student group needs a page to write down notes.
2. Read the chapter aloud to your students.
3. As the teacher reads, students record gains and losses of value for each animal on the ranch.

STUDENT SKILLS ASSESSMENT:

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

Rank for Hank: Large Animals & Birds



NAME: _____ DATE: _____

READING NOTES

As your teacher reads, write down how each animal affects the different values of a ranch.

ANIMAL	ECOSYSTEM VALUE		ECONOMIC VALUE	
	List the way(s) this animal HELPS the ranch's ECOSYSTEM.	List the way(s) this animal HARMS the ranch's ECOSYSTEM.	List the way(s) this animal HELPS the ranch's ECONOMICS.	List the way(s) this animal HARMS the ranch's ECONOMICS.
Deer				
Pronghorn Antelope				
Feral Hogs				
Aoudad Sheep				
Bird Dogs				
Doves				
Quail				
Wild Turkeys				
Birds of Prey				
Buzzards				

Rank for Hank: Large Animals & Birds



NAME: _____ DATE: _____

DATA RECORD

Reference your notes from the reading and the glossary below to compile information about each large ranch animal. Assign a number value to each animal that reflects your findings.

ANIMAL	CONTRIBUTION TO RANCH		VALUE TO THE RANCH						
	ADDS VALUE	SUBTRACTS VALUE	Compare number of "Helps" to "Harms" to the ranch to RATE EACH ANIMAL'S VALUE						
	Use a tally mark for each "help"	Use a tally mark for each "harm"	0 = Very Destructive 1 = Harmful 2 = Neither Harmful or Valuable 3 = More Valuable Than Harmful 4 = Valueable 5 = Extremely Valueable						
Deer			Ecological Value	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
			Economic Value	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Pronghorn Antelope			Ecological Value	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
			Economic Value	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Feral Hogs			Ecological Value	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
			Economic Value	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Aoudad Sheep			Ecological Value	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
			Economic Value	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Bird Dogs			Ecological Value	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
			Economic Value	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Doves			Ecological Value	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
			Economic Value	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Quail			Ecological Value	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
			Economic Value	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Wild Turkeys			Ecological Value	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
			Economic Value	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Birds of Prey			Ecological Value	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
			Economic Value	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Buzzards			Ecological Value	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
			Economic Value	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5



Rank for Hank: Large Animals & Birds



NAME: _____ DATE: _____

THE BOTTOM LINE

Transfer the values you assigned to each animal on your DATA RECORD to the charts below, then answer the questions, giving justifications for your answers.

VALUE CHART ~ RANCH'S ECOSYSTEM										
6										
5										
4										
3										
2										
1										
0										
	Deer	Pronghorn Antelope	Feral Hogs	Aoudad Sheep	Bird Dogs	Doves	Quail	Wild Turkeys	Birds of Prey	Buzzards

I think the _____ brings the MOST value to the ranch's ECOSYSTEM because...

I think the _____ brings the LEAST value to the ranch's ECOSYSTEM because...

VALUE CHART ~ RANCH'S ECONOMICS										
6										
5										
4										
3										
2										
1										
0										
	Deer	Pronghorn Antelope	Feral Hogs	Aoudad Sheep	Bird Dogs	Doves	Quail	Wild Turkeys	Birds of Prey	Buzzards

I think the _____ brings the MOST value to the ranch's ECONOMICS because...

I think the _____ brings the LEAST value to the ranch's ECONOMICS because...



ACTIVITY 4

Hunting with Hank



RANCH LIFE SERIES / BOOK 3 / RANCH WILDLIFE

Chapter 2

Content Area

Social Studies

Topic

Impact of Hunting Regulations

Objective

Students will analyze the impact of hunting regulations on a ranch.

Texas Essential Knowledge and Skills (TEKS)

K.7A, 1.11B, 2.8A, 3.7C





Hunting With Hank

CONTENT AREA: Social Studies

TOPICS: Impact of Hunting Regulations

*This activity is an extension of the "Oh Deer!" Activity from the Project WILD K-12 Curriculum and Activity Guide.

ACTIVITY MATERIALS:

- HUNTING WITH HANK DATA RECORDING SHEET (PAGE A4 - 5): 1 PER STUDENT OR STUDENT TABLE GROUP

READING STRATEGY:

The teacher can read aloud or have students read aloud with a group or partner. Every time you read about the government passing laws (regulations) about hunting, write a capital "G" in your book and then underline where you found it in the paragraph.

ACTIVITY INSTRUCTIONS:

1. Students participate in the "Oh, Deer!" Activity from the Project WILD K-12 Curriculum and Activity Guide
2. Hunters are added to the "Oh, Deer!" Activity with no government regulations. Students record on their data sheet the impact of hunters on the deer population.
3. Hunters are again added to the "Oh, Deer!" Activity with government regulations. Students record on their data sheet the impact of hunters on the deer population with government regulations.
4. Students compare and contrast the data on the deer population with and without government regulations.

STUDENT SKILLS ASSESSMENT:

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



SECURITY BRIEFING –

WORDS OF WISDOM FROM HANK THE COWDOG:

Howdy partners! Now, I am going to tell you about one of my favorite things to eat- venison steaks. Deer meat is called venison, and I only get this special treat during **deer season**. Slim and Loper grab their guns and if I am lucky they come back with a large buck that will eventually make its way to the table. Now there are **rules** about when Slim and Loper can hunt deer. The **government** writes laws (regulations) telling people when they can hunt certain animals. The government passes these laws to protect the animal populations and to make sure I don't run out of venison steak!

ACTIVITY INSTRUCTIONS:

5. Students participate in the "Oh, Deer!" activity from the Project WILD K-12 Curriculum and Activity Guide.
6. Hunters are added to the "Oh, Deer!" activity with no government regulations. Students record on their data sheet the impact of hunters on the deer population.
7. Hunters are again added to the "Oh, Deer!" activity with government regulations. Students record on their data sheet the impact of hunters on the deer population with government regulations.
8. Students compare the data on the deer population with and without government regulations.

WRAP UP:

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



Oh Deer

"OH DEER" TEACHER INSTRUCTIONS ACTIVITY FROM PROJECT WILD

- Cut up strips of colored construction paper (blue, green, brown) so that each student will have one of each color.
- Copy the handout "Oh Deer" for a closure activity
- On the board, write: Blue: water Green: food Brown: shelter

Rounds	Starting # of Deer	Surviving # of Deer
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		

CLASS PROCEDURE:

- Ask for a volunteer scorekeeper.
- Divide students into two slightly uneven groups.
- Spread desks/tables apart so that one group is on one side of the classroom and the other group is on the other side of the classroom.
- One group represents the deer and the other group represents the limiting factors (water, food, shelter). Ask the scorekeeper to record the starting number of deer for Round 1.
- Students should be reminded that there is no running and shoving or the game will end. At this point ask all students to hide their three colored sheets behind their back. Both groups should then be instructed to choose one of their colored strips without peeking. Students should hold their selected strip in front of them.
- At this point give instructions for the deer to move to the limiting factors. Both groups will have their one strip visible and the deer will go to the limiting factors and pair up with a student representing a limiting factor that matches the one the deer is holding. The deer then brings the "matching" student back with them. The deer that matches up with a limiting factor survives and now the student who was formerly a "limiting factor" becomes a deer as well. Any deer that did not match up with a limiting factor becomes a limiting factor. Any limiting factor that did not get matched up in Round 1 remains a limiting factor.
- Before starting the next round, count the number of surviving deer and have the scorekeeper record the number of surviving deer in round 1. This is also the starting number of deer for round 2.
- Keep repeating rounds as desired and watch the pattern that develops.



POSSIBLE FOLLOW-UP IDEAS:

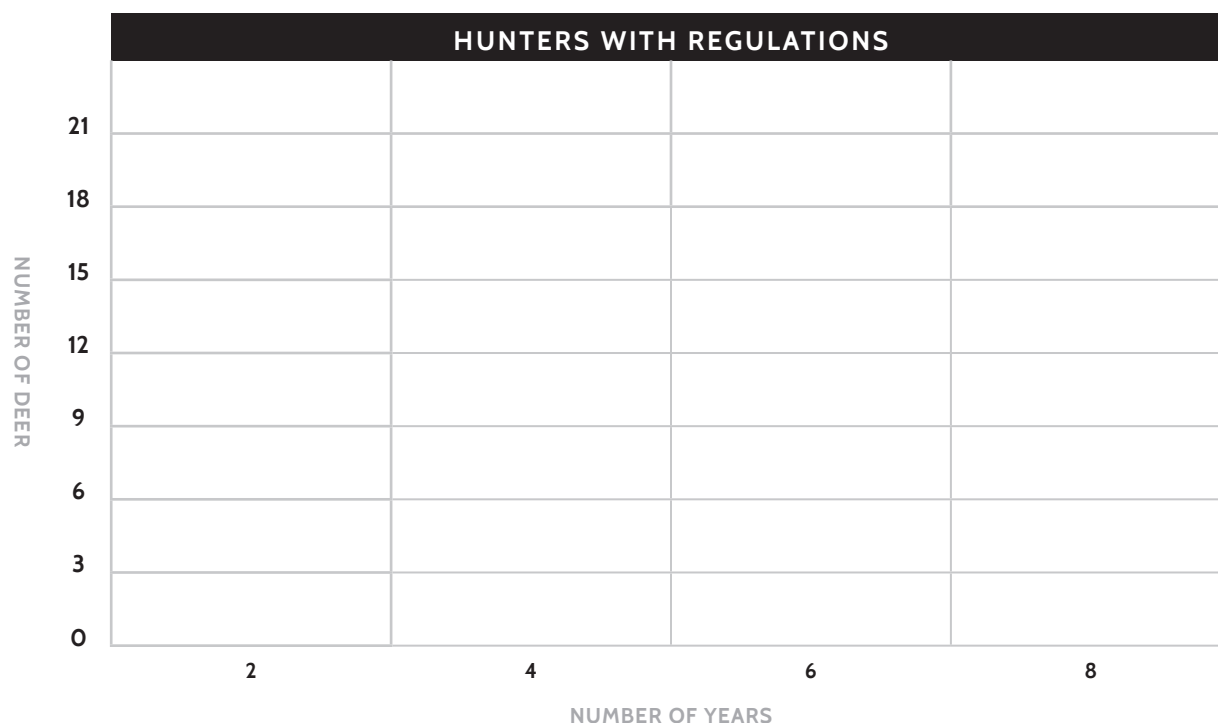
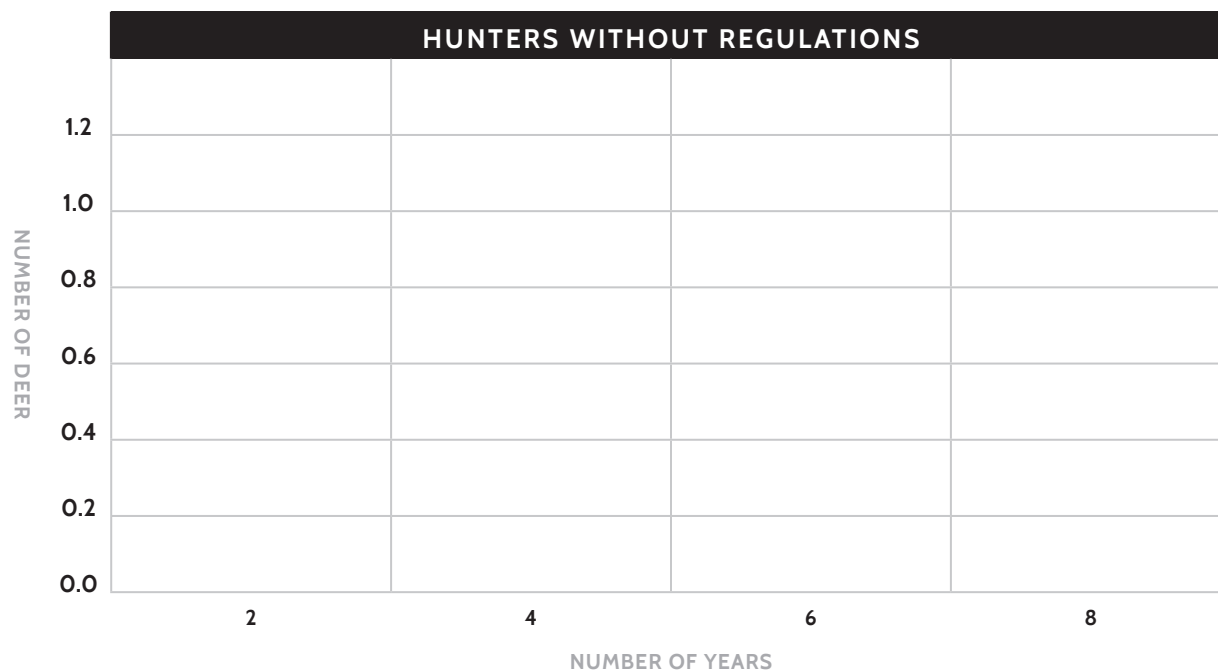
- Have students complete the "Oh Deer" handout by themselves in class, with a small group or on their own for homework.
- Discuss the importance of limiting factors on the deer population.
- Graph the data in the table to show the cyclic pattern.
- Discuss why the deer moved and not the limiting factors.
- Discuss the role of decomposers in an ecosystem (how did deer become limiting factors?).

Hunting With Hank



NAME: _____ DATE: _____

DATA PLOTTING



Hunting With Hank



NAME: _____ DATE: _____

THE BOTTOM LINE

Answer the following questions after completing your "Oh, Deer!" Activity.

1. What observation can you make about the deer population before hunters were introduced into the activity?
2. What observations can you make about the deer population when the hunters were introduced to the activity without any laws (regulations)?
3. What observations can you make about the deer population when the hunters were introduced to the activity with laws (regulations)?
4. Do you think the government should pass laws (regulations) to protect wildlife? Explain.
5. What was your favorite part of the activity?



ACTIVITY 5

Dogs Beware!



RANCH LIFE SERIES / BOOK 3 / RANCH WILDLIFE

Chapters 4 & 5

Content Area

Social Studies

Topic

Map Skills

Objective

Students will use facts about wildlife behavior to determine locations of dangerous animals on a map.

Texas Essential Knowledge and Skills (TEKS)*

K.3C, K.14D, 1.3B, 2.3A, 3.4A, 3.4C, 4.19C, 5.24A





Dogs Beware!

CONTENT AREA: Social Studies

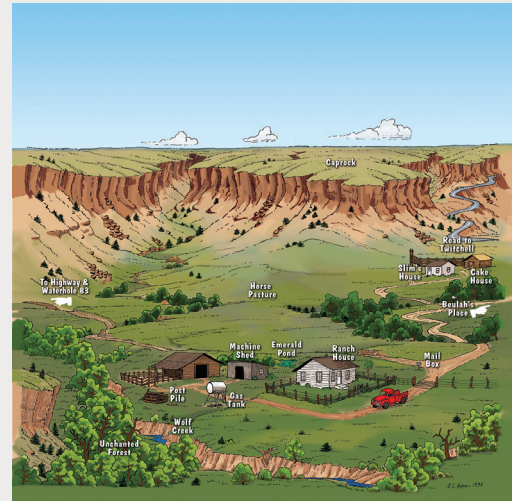
TOPIC: Map Skills

ACTIVITY MATERIALS:

- SECURITY BRIEFING (page A5-2): 1 per student table group
- RANCH GRID MAP (33" x 25.5") - 1 per student table group

To print additional maps, download the PDF from ranchlifelearning.com. Laminate the map.

- DOGS BEWARE! - DANGEROUS ANIMAL CARDS (page A5-3): 1 set per student or student group
- DOGS BEWARE! - DANGEROUS ANIMAL LOG (page A5-4): 1 per student or student group
- Scissors - 1 pair per student or student group
- THE BOTTOM LINE (page A5-6): 1 per student or student group



READING STRATEGY:

- Students will read Chapters 4 & 5. (Recommended reading can be done individually by students, student groups or be read aloud by a teacher.)
- Instruct the students to listen for information about animal behavior.

ACTIVITY INSTRUCTIONS:

1. Students will trim out the DOGS BEWARE! - ANIMAL CARDS and place them on the RANCH GRID MAP in locations where they believe that animal would most likely be found.
2. Using the DOGS BEWARE! - DANGEROUS ANIMAL LOG, students will record:
 - the grid coordinates of that animal
 - any facts or evidence from the reading that supports their chosen placement

STUDENT SKILLS ASSESSMENT:

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

Dogs Beware!



SECURITY BRIEFING –

WORDS OF WISDOM FROM HANK THE COWDOG:

*We've talked about skunks, right? And all the damage they can do? Big damage, especially if they land a direct hit. Boy, you talk about STINK. You talk about toxic air and going blind and gasping for breath! When it comes to **dangerous** animals - like skunks- WE DON'T HAVE ANY SKUNK COUNTERMEASURES. When you get skunked, you're skunked, buddy, and you wear it until it falls off. That is just one of the dangerous animals you might see on the ranch. Sometimes they get close to headquarters looking for **food** and **shelter**. It is my job to figure out where these dangerous animals like to hang out so that I can avoid any mishaps as I patrol the ranch.*

ACTIVITY MATERIALS:

- RANK FOR HANK DATA RECORDING SHEET
- NOTES: RANK FOR HANK
- Insert page numbers of each activity page onto the “Game Materials” section of the Educator’s Guide Page

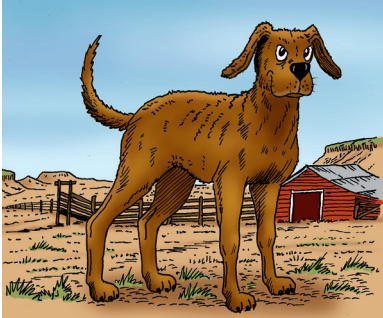
ACTIVITY INSTRUCTIONS:

1. Students label the cardinal directions on their grid map
2. Students place the pictures of the DANGEROUS ANIMALS on their group’s grid map

WRAP UP:

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





Hank the Cowdog



porcupine



bobcat



coyote



skunk



raccoon



bobcat



porcupine



mountain lion



coyote



skunk



raccoon

Dogs Beware!

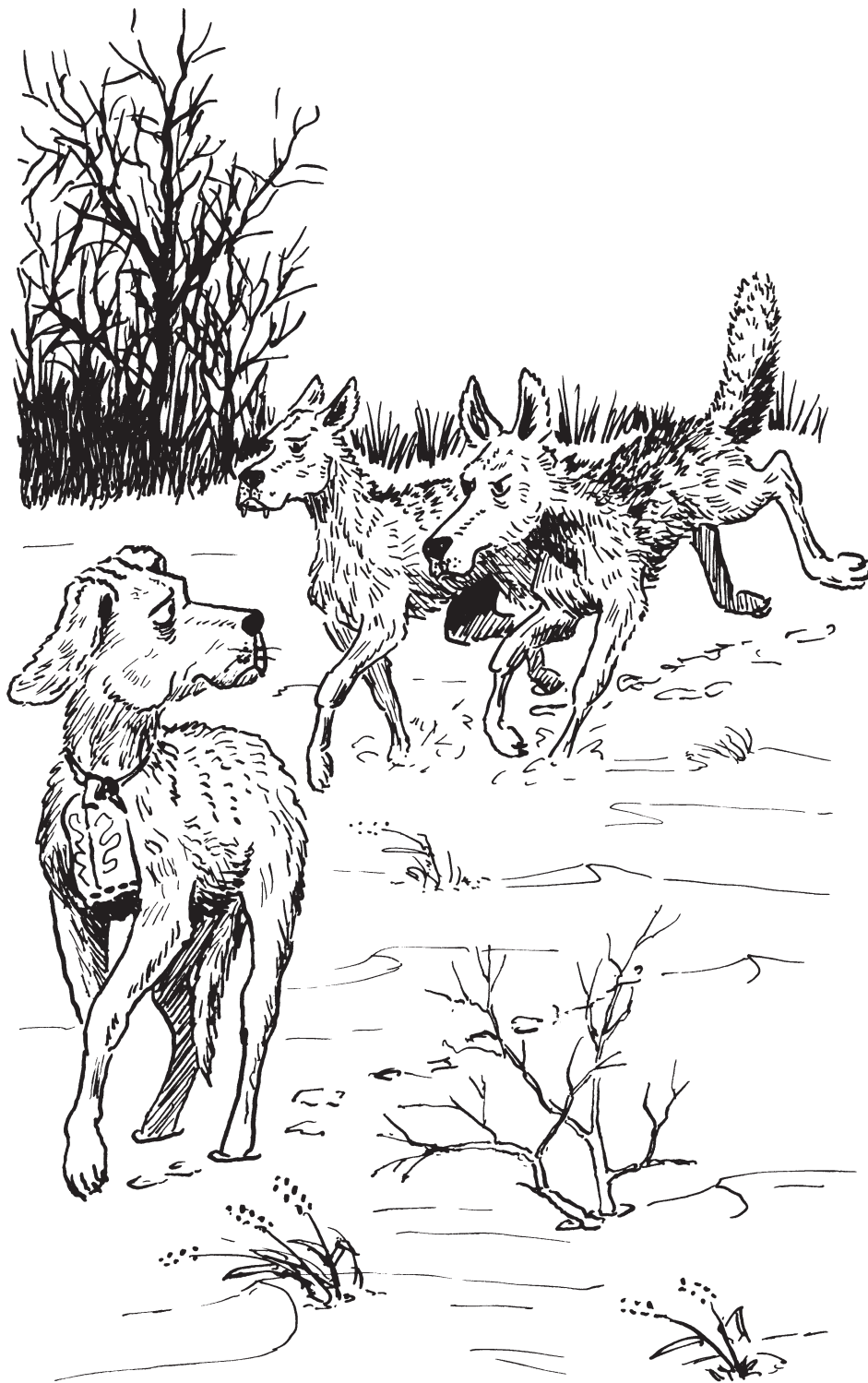


NAME: _____ DATE: _____

DANGEROUS ANIMAL LOG

You have learned so much about the dangerous animals that live on a ranch! Log what you have learned so you can avoid them as Hank does!

LOCATIONS OF THE DANGEROUS ANIMALS ON A RANCH		
ANIMALS	GRID MAP LOCATION(S)	JUSTIFICATION
coyotes		
bobcats		
mountain lions		
skunks		
porcupines		
raccoons		



Dogs Beware!



NAME: _____ DATE: _____

THE BOTTOM LINE

Knowing the location of dangerous animals can help a dog keep it's hide! Explain how you decided where these dangerous animals should be located on a ranch.

Answer the questions below:

1. Which animal might be considered to be the MOST DANGEROUS to a ranch?
2. Where did you place the MOST DANGEROUS animal on your grid map?
Explain your reasoning.
3. Which animal might be considered to be the LEAST DANGEROUS to a ranch?
4. Where did you place the LEAST DANGEROUS animal on your grid map?
Explain your reasoning.



ACTIVITY 6

Dodging Drama & Avoiding Scuffles



RANCH LIFE SERIES / BOOK 3 / RANCH WILDLIFE

Chapters 4 & 5

Content Area

Social Studies

Topic

Map skills

Objective

Students will use cardinal directions to navigate Hank the Cowdog around a grid map of his ranch.

Texas Essential Knowledge and Skills (TEKS)*

K.3C, K.14D, 1.3B, 2.3A, 3.4A, 3.4C, 4.19C, 5.24A





Dodging Drama & Avoiding Scuffles

CONTENT AREA: Social Studies

TOPIC: Map Skills

GAME MATERIALS:

- SECURITY BRIEFING (page A6-2): 1 per student table group
- RANCH GRID MAP (33" x 25.5") - 1 per student table group

To print additional maps, download PDF from ranchlifelearning.com. Laminate the map.

- DODGING DRAMA & AVOIDING SCUFFLES - CARDS
1 set per student or student group
- THE BOTTOM LINE (page A6-6): 1 per student or student table group

READING STRATEGY:

- Students will read Chapters 4 & 5. (Recommended reading can be done individually by students, student groups or be read aloud by a teacher.)
- After the reading, have each student table group place the DODGING DANGEROUS ANIMALS - ANIMAL CARDS on the RANCH GRID MAP. Chosen placement of these animals must be supported by the reading.

ACTIVITY INSTRUCTIONS:

1. Students will navigate a HANK CARD around the RANCH GRID MAP according to the directions on the SECURITY BRIEFING sheet.
2. Students will record how their group navigated HANK through his day using the grid coordinates on the map.

STUDENT SKILLS ASSESSMENT:

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

Dodging Drama & Avoiding Scuffles



SECURITY BRIEFING –

WORDS OF WISDOM FROM HANK THE COWDOG:

There are a lot of animals on the ranch that can be dangerous to a dog. While it is my job to protect the ranch, most fights with skunks, porcupines, bobcats, mountain lions, coyotes and raccoons end south of good for a dog. In fact, last time I picked a fight with a porcupine things ended quickly. I was mid air when I tried to change course. Too late. I don't move so good in midair. I lit right in the middle of the biggest porcupine I had seen in my life and bam, he slapped me across the nose with his tail, sure did hurt too, brought tears to my eyes. A lot of dogs would have set up a howl and a moan. Not me. My nose is still sore. Come to think of it, I sure would appreciate it if you would help me navigate the ranch in a drama/scuffle free way.

ACTIVITY MATERIALS:

- RANCH GRID MAP
- STUDENT INSTRUCTIONS: RANCH MAP INSTRUCTIONS FOR DODGING DANGEROUS ANIMALS
- HANK PICTURE
- DANGEROUS ANIMAL PICTURES (Coyotes, Bobcats, Mountain Lions, Skunks, Porcupines, and Raccoons)
- Insert page numbers of each activity page onto the “Game Materials” section of the Educator's Guide Page

ACTIVITY INSTRUCTIONS:

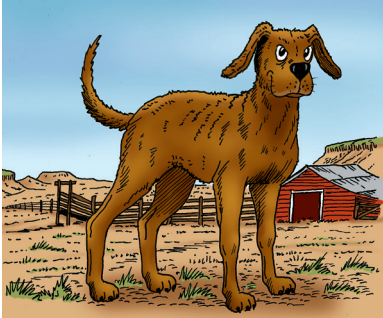
1. Students read the DODGING DANGEROUS ANIMALS instructions and record how they helped navigate Hank through his day.

WRAP UP:

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

ACTIVITY INSTRUCTIONS:

Cut out and use this Hank the Cowdog game piece on your grid map.



Hank the Cowdog



porcupine



bobcat



coyote



skunk



raccoon



bobcat



porcupine



mountain lion



coyote



skunk



raccoon

Dodging Drama & Avoiding Scuffles



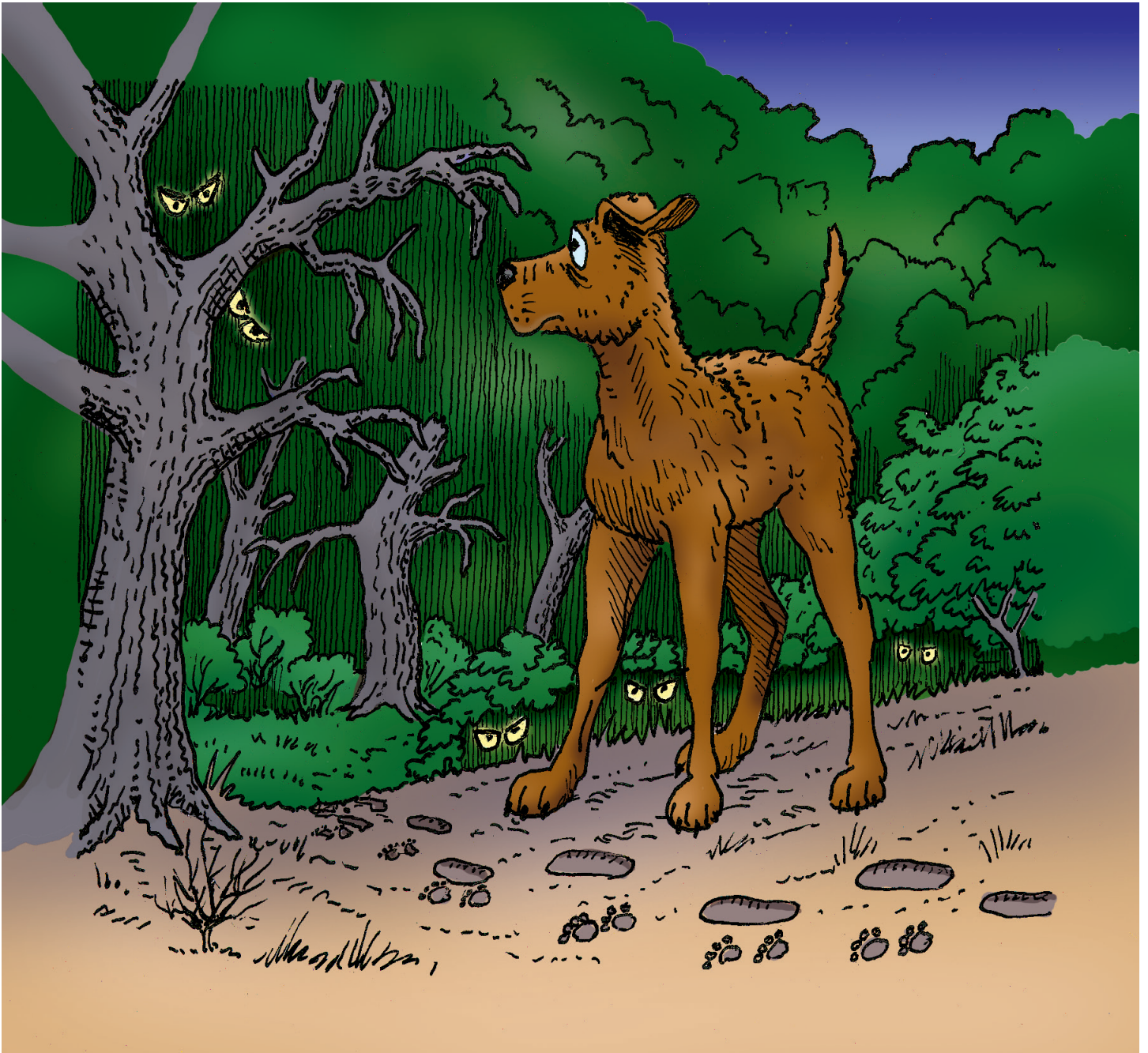
SECURITY BRIEFING –

GAME INSTRUCTIONS:

Using the RANCH GRID MAP and your knowledge of cardinal directions, help Hank travel to the next location on his ranch. Place the dangerous animal cards on the map based on what you have read about their habitat and behaviors. Then, grab your Hank the Cowdog card to begin. Be sure to avoid any dangerous animals along the way!

Place your HANK THE COWDOG CARD at the MACHINE SHED to begin.

1. It's time for the work day to begin! Hank heads to Slim's house to pick up Slim.
 - *Record Hank's navigation from the MACHINE SHED to SLIM'S HOUSE.*
2. Slim and Hank get in the truck to go check on the cattle grazing on the Caprock.
 - *Record Slim and Hank's navigation from SLIM'S HOUSE to the CAPROCK.*
3. The cattle are well fed and healthy. It's time to check on the horses next.
 - *Record their navigation from the CAPROCK to the HORSE PASTURE.*
4. Hank and Slim hear a crazy noise coming from the Uncharted Forest! What on earth?? It's the Head of Ranch Security's job to check stuff like that out, so off we go.
 - *Record their navigation from the HORSE PASTURE to the UNCHANTED FOREST.*
5. It's been an exhausting day! Hank bids Slim goodbye and heads to Sally May and Loper's house. Dinner should be waiting for him in his bowl.
 - *Record their navigation from the UNCHANTED FOREST to the RANCH HOUSE.*
6. Fill out THE BOTTOM LINE worksheet after you have completed the activity.



Dodging Drama & Avoiding Scuffles



NAME: _____ DATE: _____

THE BOTTOM LINE

Dodging dangerous animals can be tricky business for a Cowdog. Answer the questions on how you kept Hank safe throughout the day.

1. Were any of the dangerous animals placed close to the RANCH HOUSE? If so, which ones?
2. When Hank traveled to SLIM'S HOUSE, did he run into any dangerous animals? Explain.
3. When Hank patrolled the CAPROCK, did he have to avoid any dangerous animals?
4. List the cardinal directions and grid numbers you gave to Hank for him to travel from the CAPROCK to the HORSE PASTURE.
5. How did Hank get from HORSE PASTURE to the UNCHANTED FOREST safely?
List the cardinal directions Hank followed.
6. How did you help Hank dodge the dangerous animals on the ranch?



ACTIVITY 7

The Good, The Bad & The Ugly



RANCH LIFE SERIES / BOOK 3 / RANCH WILDLIFE

Chapters 1-6

Content Area

Science

Topic

Animal Interactions

Objective

Students will learn about animal interactions in a ranch environment.

Texas Essential Knowledge and Skills (TEKS)

2.13B, 3.13A, 4.13AB, 5.13AB





The Good, The Bad & The Ugly

CONTENT AREA: Science

TOPIC: Animal Interactions

GAME MATERIALS:

- SECURITY BRIEFING (page A7-2): 1 per student or student group
- THE GOOD, BAD & THE UGLY - GAMEBOARD (provided) 1 per student table group, laminate (To print additional 11" x 17" tabloid size maps, download PDF from ranchlifelearning.com)
- THE GOOD, BAD & THE UGLY - "CONSEQUENCE" CARDS (page A7-3 thru A7-6): 1 set per student table group
- THE GOOD, BAD & THE UGLY - "REWARD" CARDS (page A7-7 thru A7-10): 1 set per student table group
- Game Playing Piece (use found items, such as different colored buttons or empty thread spools): 1 per student
- Die: 1 per student group
- THE BOTTOM LINE (page A7-12): 1 per student or student table group

READING STRATEGY:

Students will read Chapters 1-6 before beginning the game.

GAME INSTRUCTIONS:

1. Each group will need a THE GOOD, BAD & THE UGLY - GAMEBOARD, and THE GOOD, BAD & THE UGLY - CONSEQUENCE and REWARD GAME CARDS, a game token, and a die.
2. To begin the game, students take turns rolling the die. The person who rolls the highest number goes first.
3. Players take turns rolling the die, moving their game piece the number of spaces as indicated on the die, then drawing either a THE GOOD, BAD & THE UGLY - CONSEQUENCE or REWARD GAME CARD as determined by the number they rolled on the die. After drawing the card, the student must read and follow the directions on the card. Student will keep the card he/she drew.
 - Students who roll a 1, 2 or 3 will draw a THE GOOD, BAD & THE UGLY - "CONSEQUENCE" CARD
 - Students who roll a 4, 5 or 6 will draw a THE GOOD, BAD & THE UGLY - "REWARD" CARD
4. If a player lands on a Hank the Cowdog space, that student will move his/her game playing piece to the next Hank the Cowdog space on the board. It is then the next player's turn.
5. The winner of the game is the first player to reach the "finish" space on the board.
6. At the conclusion of the game, students will use their collected consequence and reward cards to complete THE BOTTOM LINE .

STUDENT SKILLS ASSESSMENT:

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

The Good, The Bad & The Ugly



SECURITY BRIEFING –

WORDS OF WISDOM FROM HANK THE COWDOG:

*Life on a ranch may seem simple to some folks, but I assure you it is not. There is always something happening on the ranch with **predators** and **prey**. When you think about all the **animal interactions** on the ranch it is amazing! All the animals have **behaviors** that help them **survive** these interactions. Some have **defenses** they were born with like quills or a stinky musk. Others have behaviors that help them survive predators like **freeze, flight, or fight**. Sometimes...animal interactions are good, other times they are bad, and sometimes they are down right ugly. I am always on high alert, but ever once in a while, things go my way and I can have a lazy day napping in the machine shed. This game is going to let you experience some of the interactions I have encountered over the past year.*

ACTIVITY MATERIALS:

- RANCH LIFE: THE GOOD, BAD, AND THE UGLY GAMEBOARD
- RANCH LIFE: THE GOOD, BAD, AND THE UGLY GAME REWARD CARDS
- RANCH LIFE: THE GOOD, BAD, AND THE UGLY GAME CONSEQUENCE CARDS
- Game Token
- Die
- THE BOTTOM LINE

ACTIVITY INSTRUCTIONS:

1. After you have read chapters 1-6 you will be ready to play the game.
2. To begin play, each player needs to roll the die to determine who goes first. The highest number will go first.
3. Player 1 will roll the die. Move forward the number of spaces on the die. If they roll a 1-3, they will draw a CONSEQUENCE card and follow the instructions on the card. If they roll a 4-6, they will draw a REWARD card and follow the instructions on the card.
4. Once you move your token keep your game card on the table in front of you.
5. If a player lands on a Hank space, they will move their token to the next Hank space on the gameboard and their turn ends.
6. Play continues until a player reaches the finish on the gameboard.

WRAP UP:

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

I can't resist a porcupine moving lazily across the pasture. I move in to let it know who's boss and I get a whole snout full of quills! Loper must pull them out with pliers. This is going to take a while. STAY ON YOUR SPACE. LOSE A TURN.	A feral hog wondered onto the ranch and destroyed Loper's whole field of wheat! Why would this behavior be a problem on a ranch? I WILL BE ON WATCH TONIGHT. NO DINNER FOR ME. GO BACK 2 SPACES.	I went deer hunting with Loper, but I forgot I was not supposed to bark and scare off the deer. It was just so much fun to see them run. LOPER SENT ME HOME WITHOUT DINNER. GO BACK 3 SPACES.
A raccoon gets in Sally May's garden and eats her watermelon and makes a mess of the rest of the plants. Sally May came out swinging her hoe and somehow, I am in trouble for not scaring the coon off! I AM SENT TO BED WITH NO SUPPER. GO BACK 1 SPACE.	Loper rides his horse over a turkey hen's nest and scares up the hens – which scares the horse! Why would the turkey hen act like that? I GET IN TROUBLE FOR NOT ALERTING LOPER TO THE NEST...PHOOEY! GO BACK 2 SPACES.	Drought hits the ranch and the population of quail are down. The lack of grass on the ground leaves their nest exposed to predators. Why do you think this would have an impact on the quail numbers? STOPPED TO PONDER. GO BACK 1 SPACE.
I might have decided to take a nap while a coyote slipped onto the ranch and ate all of Sally May's ripe plums that fell off the tree. The coyote is full and happy. Who do you think got in trouble for the feast? That's right, me! GO BACK 2 SPACES.	I barked at a group of hawks called Mississippi Kites and they went into full defensive mode. They began dive bombing me. Would this behavior be freeze, flight, or fight? I HAD TO SEEK SHELTER IN THE BARN. GO BACK 2 SPACES.	I played a good round of Scatter the Birds and got in big trouble with Sally May for scaring the turkeys away from the kitchen window. NO SPECIAL MEAL TONIGHT. GO BACK 3 SPACES.
Loper and Slim chased quail all day, but could not catch those sneaky critters. Every time they would get close, the quail took off running. (I might have caused them to run a few times before I was sent home.) GO BACK 3 SPACES.	I barked at a skunk that wandered into the barn and chased it around. Well, you can imagine what happened next – I got blasted by the skunk's musk! What type of behavior is the skunk displaying? GO BACK 5 SPACES.	I got a little too close to a bobcat and got the snot beat out of me. Not my finest hour. I am going to need to take time off to recover. What type of behavior did the bobcat display? STAY ON YOUR SPOT. LOSE YOUR NEXT TURN.



CONSEQUENCES



CONSEQUENCES



CONSEQUENCES



CONSEQUENCES



CONSEQUENCES



CONSEQUENCES



CONSEQUENCES



CONSEQUENCES



CONSEQUENCES



CONSEQUENCES



CONSEQUENCES



CONSEQUENCES

Lose a Turn

STAY WHERE YOU ARE.

Lose a Turn

STAY WHERE YOU ARE.

I was sleeping in the machine shed, minding my own business, when a raccoon knocked over the trash cans and made a mess. When I arrived, trash was scattered everywhere.
I GOT IN TROUBLE FOR NOT SCARING THEM AWAY. GO BACK 2 SPACES.

Lose a Turn

STAY WHERE YOU ARE.

Lose a Turn

STAY WHERE YOU ARE.

I got a tiny bit distracted when I saw a jack rabbit hop by. I love a good jack rabbit chase. Those critters are much faster than me, but the chase is a lot of fun. While I was preoccupied, a coyote snuck in and got a chicken.
I AM IN BIG TROUBLE. GO BACK 5 SPACES.

Lose a Turn

STAY WHERE YOU ARE.

Lose a Turn

STAY WHERE YOU ARE.

I worked hard all day, so I retired to the machine shop for the night. I was woken up by a bobcat making a mess in the barn. Then it took off with a chicken from the coop!
CAN'T A GUY GET ANY SLEEP? GO BACK 2 SPACES.

Lose a Turn

STAY WHERE YOU ARE.

Lose a Turn

STAY WHERE YOU ARE.

I woke up in a bad mood and was barking at everything. I worked up the cattle, the chicken and the turkeys. All this excitement was putting me in a much better mood! Sally May came out with her broom.
FUN WAS OVER. GO BACK 3 SPACES.



CONSEQUENCES



CONSEQUENCES



CONSEQUENCES



CONSEQUENCES



CONSEQUENCES



CONSEQUENCES



CONSEQUENCES



CONSEQUENCES



CONSEQUENCES



CONSEQUENCES



CONSEQUENCES



CONSEQUENCES

I saw a bunch of deer near Sally May's garden and barked to scare them away. What do you think they were doing by the garden? SALLY MAY GAVE ME A BONE FROM DINNER FOR SAVING HER GARDEN. GO AHEAD 3 SPOTS.	Sally May's favorite spoon went missing and I knew it had to be a pack rat. I snuck into the barn, found its nest, and retrieved the spoon. Sally May was so proud of me she gave me a cut of supper meat! GO AHEAD 3 SPACES.	I showed great maturity in working with Pete to get the mice out of the machine shop before they chewed the wires of Loper's machines. Pete is annoying, but I must admit... he's great at catching mice. GO AHEAD 3 SPACES.
I saved Plato from a feral hog one time when he stumbled on a momma with her babies. Why do you think this was a dangerous situation? MY GENEROUS ACT OF BRAVERY HAS NOT GONE UNNOTICED. GO AHEAD 3 SPACES.	Loper was leading his horse into ground that was full of deep holes – <i>prairie dog territory!</i> I barked and ran in circles around the horse until Loper noticed the danger. He rewarded me with a piece of jerky. GO AHEAD 3 SPACES.	I dedicated 5 hours of my day to bunny patrol. I barked all day at the cattle guard pipe that concealed a cottontail rabbit – until I heard the supper bell, that is. It was a long day, but someone had to do it. GO AHEAD 2 SPACES.
A hawk kills a rabbit and leaves behind a mess. I know it is my job to clean up the mess or unwanted predators will appear. Before I can get started, a buzzard cleans up for me. I HAVE A LITTLE EXTRA TIME NOW. GO AHEAD 1 SPACE.	I noticed some mice eating the grain from the barn and alerted the great barn owl. The owl may have already known the mice were there, but I am going to take full credit for the tip. I SAVED THE GRAIN. GO AHEAD 3 SPACES.	I alerted Loper and Slim of a rattlesnake hiding in a prairie dog hole. They were so thankful that I ended up with some gristle from their campfire meal. I am a happy dog. GO AHEAD 3 SPACES.
Mountain lion tracks have been spotted on the ranch and Loper found a dead deer. I have been chosen to go on a walk about to look for clues. I will be covering a lot of ground today. GO AHEAD 3 SPACES.	Sally May leaves feed out in front of the kitchen window, so she can watch the turkeys in the yard. I fought the urge to play a very exciting game of Scatter the Birds. I SHOWED GREAT RESTRAINT. GO AHEAD 3 SPACES.	A raccoon dug a hole into the chicken coop. Sally May would be angry if she lost any chickens to a raccoon, so I filled the hole back up with my amazing digging skills. The chicken coop is safe for now... GO AHEAD 3 SPACES.



REWARDS



REWARDS



REWARDS



REWARDS



REWARDS



REWARDS



REWARDS



REWARDS



REWARDS



REWARDS



REWARDS



REWARDS

BONUS!

MOVE AHEAD 1 SPACE.

BONUS!

MOVE AHEAD 1 SPACE.

Loper and Slim have a successful deer hunt and cook up some meat on the mesquite campfire. They were feeling generous and gave me a bone and some gristle.
*I WENT TO BED FULL.
GO AHEAD 2 SPACES.*

BONUS!

MOVE AHEAD 1 SPACE.

BONUS!

MOVE AHEAD 1 SPACE.

I helped with a successful dove hunt and Slim threw me the bones from his meal. I love when my humans are feeling generous.
*I WENT TO BED FULL.
GO AHEAD 2 SPACES.*

BONUS!

MOVE AHEAD 1 SPACE.

BONUS!

MOVE AHEAD 1 SPACE.

A coyote slips on the ranch and moves slowly into the chicken pen. I spring into action barking, and Loper wakes up and comes out with a gun to scare off the intruder.
I WAS REWARDED WITH A PAT ON THE HEAD. GO AHEAD 3 SPACES.

BONUS!

MOVE AHEAD 1 SPACE.

BONUS!

MOVE AHEAD 1 SPACE.

I see a raccoon sneaking into the barn to get the corn sacks stored for the winter. I sound the alarm, Loper grabs his gun, and in no time flat the raccoon runs away. Disaster diverted!
*I WAS REWARDED WITH A NICE BONE.
GO AHEAD 3 SPACES.*



REWARDS



REWARDS



REWARDS



REWARDS



REWARDS



REWARDS



REWARDS



REWARDS



REWARDS



REWARDS



REWARDS



REWARDS



The Good, The Bad & The Ugly



NAME: _____ DATE: _____

THE BOTTOM LINE

Complete the following questions after you have played the game.

1. Look at the cards you collected during the game. Can you sort your cards into related categories? (i.e. Do you have two cards where the animal interaction resulted in a "flight" response?) Sort your cards into as many related categories as you can, then write down the categories you used in your sorting.
2. What did you learn about the interactions animals have with each other on the ranch?
3. What did you learn about the interactions animals have with their environment?
4. If you could pick an animal defense what would it be? Explain your choice.
5. Which animal do you think is the best adapted for ranch life? Explain your answer.
6. Do you think defensive inherited traits or learned behaviors provided animals the best protection from dangerous interactions on the ranch? Explain your answer.



ACTIVITY 8

Rank for Hank: Small Animals



RANCH LIFE SERIES / BOOK 3 / RANCH WILDLIFE

Chapters 4, 5 & 6

Content Area

Science & Social Studies

Topic

Animal Impact on Natural Resources

Objective

Students will study and assign value to animal contributions in a ranch's ecosystem and economic success.

Texas Essential Knowledge and Skills (TEKS)*

3.12A, 5.12AC & 1.9B, 1.16B, 2.7A, 2.15B, 3.15E, 4.11B, 4.19B, 5.12B, 5.23B





Rank for Hank: Small Animals

CONTENT AREA: Science & Social Studies

TOPIC: Animal Impact on Natural Resources

ACTIVITY MATERIALS:

- SECURITY BRIEFING (page A8-2): 1 per student or student group
- RANK FOR HANK: SMALL ANIMALS - NOTES (page A8-3): 1 per student
- RANK FOR HANK: SMALL ANIMALS - DATA RECORD (page A8-4): 1 per student or student group
- THE BOTTOM LINE (page A8-6): 1 per student or student group

READING STRATEGY:

- Review the terms “economic value” and “ecosystem value” with your students. See definitions and examples below.
- Students will read Chapters 4, 5 & 6. (Recommended reading can be done individually by students, student groups or be read aloud by a teacher.)
- Students will write notes during the reading on their RANK FOR HANK: SMALL ANIMALS - NOTES sheet, recording how an animal helps or harms a ranch with their presence and behavior.

ACTIVITY INSTRUCTIONS:

Students will complete the RANK FOR HANK: SMALL ANIMALS - DATA RECORD using their handwritten notes from the reading as a reference.

At the completion of the activity, students will have data to transfer to their THE BOTTOM LINE worksheet.

STUDENT SKILLS ASSESSMENT:

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

ECOLOGICAL VALUE: On a ranch, ecological value is determined by the contribution of a species (*plant or animal*) to the healthy preservation of the ecosystem (*how organisms coexist with one another*).

EXAMPLES: Healthy grass is EXTREMELY VALUABLE to the ranch's ecosystem because it is needed to nourish and grow wildlife populations, such as cattle. Cattle grub insects would be VERY DESTRUCTIVE to the ranch's ecosystem because they can be fatal to a cattle population.

ECONOMIC VALUE: On a ranch, economic value is determined by the contribution of a species (*plant or animal*) to the *financial benefit* gained or lost in the business of ranching. Wildlife presence/behavior, the weather, and natural disasters greatly impact this value.

EXAMPLE: Healthy grass is EXTREMELY VALUABLE to a ranch's economics because it strengthens the goods and services of the ranch (it feeds cattle, improves the landscape, and provides natural wildfire management).

Rank for Hank: Small Animals



SECURITY BRIEFING –

WORDS OF WISDOM FROM HANK THE COWDOG:

Well partners, this is Hank the Cowdog and I need your help. Sally Mae and Loper think we need to keep some **animals** on the ranch and frankly, this dog does not agree. You have read about coyotes, porcupines, and mice. Now it is time to calculate the **value** they bring to a ranch. Each of these animals can add or subtract value to our ranch. Now all of you know how I feel about coyotes, if it was up to me, I would never see one again! All of the animals interact with the **environment** and a healthy ecosystem on the ranch means a healthy herd of cattle! Each of these animals can also help Sally Mae and Loper put more money in their pockets, which means the Head of Security (that's me) might get an extra helping of dog food! You are going to help me figure out which animals are the **MOST** beneficial to the ranch. As Head of Security, it is important to know which animals for me to chase off and which ones help my ranch!

ACTIVITY MATERIALS:

- RANK FOR HANK DATA RECORDING SHEET
- NOTES: RANK FOR HANK
- Insert page numbers of each activity page onto the “Game Materials” section of the Educator’s Guide Page

ACTIVITY INSTRUCTIONS:

1. Each student will need a RANK FOR HANK NOTES PAGE
2. Have students write notes on the value of each animal on the ranch. Values should be categorized into Economic Value and Value to the Ecosystem.
3. When students are done with their notes, they will fill in the RANK FOR HANK DATA RECORDING SHEET

WRAP UP:

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

Rank for Hank: Small Animals



NAME: _____ DATE: _____

READING NOTES

As your teacher reads, write down how each animal affects the different values of a ranch.

ANIMAL	ECOSYSTEM VALUE		ECONOMIC VALUE	
	List the way(s) this animal HELPS the ranch's ECOSYSTEM.	List the way(s) this animal HARMS the ranch's ECOSYSTEM.	List the way(s) this animal HELPS the ranch's ECONOMICS.	List the way(s) this animal HARMS the ranch's ECONOMICS.
Coyote				
Bobcat				
Mountain Lion				
Skunk				
Porcupine				
Raccoon				
Rodent				
Rabbit				
Prairie Dog				
Owl				

Rank for Hank: Small Animals



NAME: _____ DATE: _____

DATA RECORD

Reference your notes from the reading and the glossary below to compile information about each small ranch animal. Assign a number value to each animal that reflects your findings.

ECOLOGICAL VALUE: On a ranch, ecological value is determined by the contribution of a species (*plant or animal*) to the healthy preservation of the ecosystem (*how organisms coexist with one another*).

EXAMPLES: Healthy grass is EXTREMELY VALUABLE to the ranch's ecosystem because it is needed to nourish and grow wildlife populations, such as cattle. Cattle grub insects would be VERY DESTRUCTIVE to the ranch's ecosystem because they can be fatal to a cattle population.

ECONOMIC VALUE: On a ranch, economic value is determined by the contribution of a species (*plant or animal*) to the *financial benefit* gained or lost in the business of ranching. Wildlife presence/behavior, the weather, and natural disasters greatly impact this value.

EXAMPLE: Healthy grass is EXTREMELY VALUABLE to a ranch's economics because it strengthens the goods and services of the ranch (it feeds cattle, improves the landscape, and provides natural wildfire management).

ANIMAL	CONTRIBUTION TO RANCH		VALUE TO THE RANCH						
	ADDS VALUE	SUBTRACTS VALUE	Compare number of "Helps" to "Harms" to the ranch to RATE EACH ANIMAL'S VALUE						
	Use a tally mark for each "help"	Use a tally mark for each "harm"	0 = Very Destructive 1 = Harmful 2 = Neither Harmful or Valuable 3 = More Valuable Than Harmful 4 = Valueable 5 = Extremely Valueable						
Coyote			Ecological Value	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
			Economic Value	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Bobcat			Ecological Value	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
			Economic Value	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Mountain Lion			Ecological Value	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
			Economic Value	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Skunk			Ecological Value	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
			Economic Value	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Porcupine			Ecological Value	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
			Economic Value	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Raccoon			Ecological Value	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
			Economic Value	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Rodent			Ecological Value	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
			Economic Value	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Rabbit			Ecological Value	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
			Economic Value	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Prairie Dog			Ecological Value	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
			Economic Value	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Owl			Ecological Value	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
			Economic Value	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5



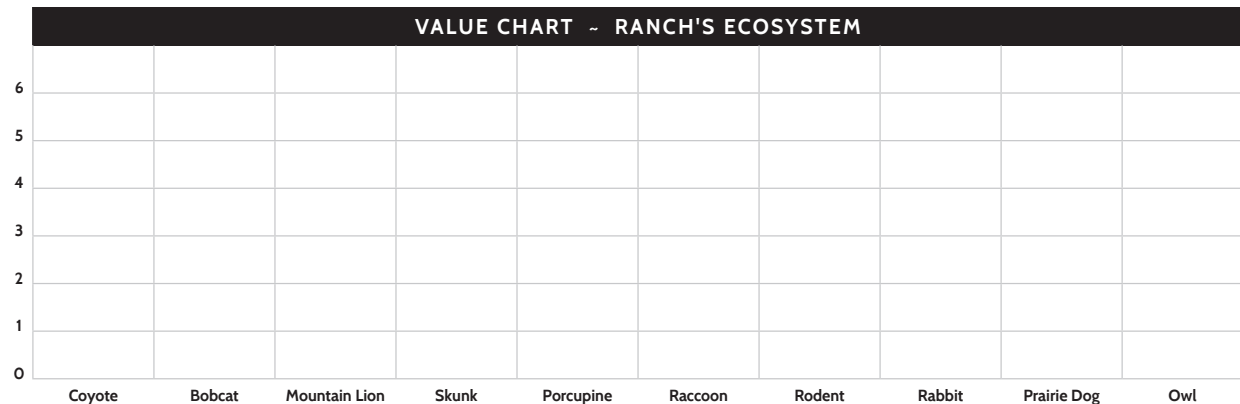
Rank for Hank: Small Animals



NAME: _____ DATE: _____

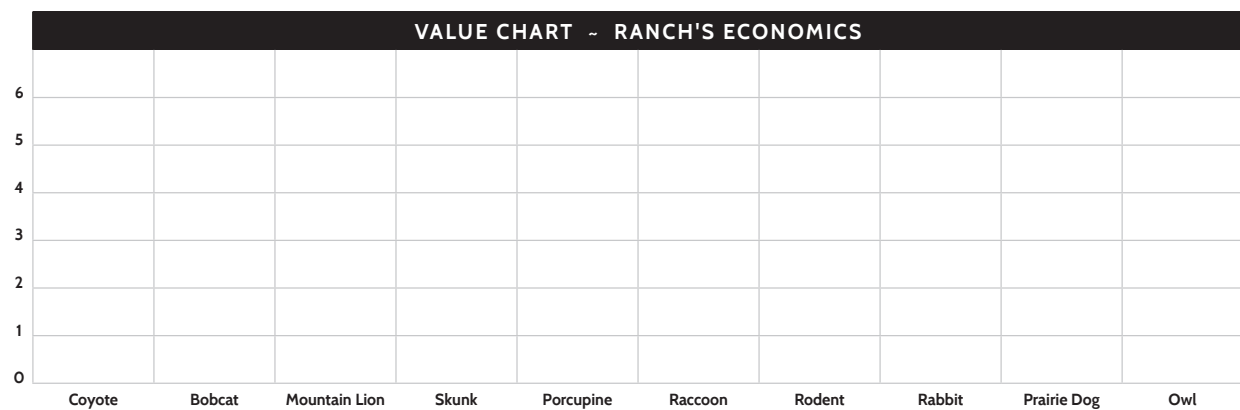
THE BOTTOM LINE

Transfer the values you assigned to each animal on your DATA RECORD to the charts below, then answer the questions, giving justifications for your answers.



I think the _____ brings the MOST value to the ranch's ECOSYSTEM because...

I think the _____ brings the LEAST value to the ranch's ECOSYSTEM because...



I think the _____ brings the MOST value to the ranch's ECONOMICS because...

I think the _____ brings the LEAST value to the ranch's ECONOMICS because...



ACTIVITY 9

Kill or Keep?



RANCH LIFE SERIES / BOOK 3 / RANCH WILDLIFE

Chapters 6 & 7

Content Area

Social Studies

Topic

Animal Impact on Environment

Objective

Students will analyze animal impact on a ranch environment to determine need for human intervention.

Texas Essential Knowledge and Skills (TEKS)*

K.4B, K.15, 1.5B, 1.15, 2.15B, 2.18, 3.14B, 3.17, 4.14B, 4.16, 5.8A, 5.23B, 5.26





Kill or Keep?

CONTENT AREA: Social Studies

TOPIC: Animal Impact on Environment

GAME MATERIALS:

- SECURITY BRIEFING (page A9-2): 1 per student or student group
- KILL OR KEEP - NOTES (page A9-3): 1 per student or student group
- THE BOTTOM LINE (page A9-4): 1 per student or student group

READING STRATEGY:

- Students will read Chapters 6 & 7. (Recommended reading can be done individually by students, student groups or be read aloud by a teacher.)
- Students will fill out the KILL OR KEEP - NOTES during and after the reading.

ACTIVITY INSTRUCTIONS:

1. Student groups will take turns acting out scenarios from their KILL OR KEEP - NOTES to the rest of the class.
2. One member of each student group will be selected to be the one who acts out the scenario. This student will want to communicate with his/her actions any emotions that might be associated with stumbling upon that animal, including how the emotions might evolve as the encounter progresses (*fear, frustration, anger, relief, anxiety, etc...*).
3. The class will take turns guessing the animal and scenario until they guess correctly or the teacher determines time is up. The next group to perform can be determined by who guessed correctly or by going in a circle.
4. Teachers will determine how many rounds of scenarios different student groups will perform. If a student group performs more than once, a different performer must be chosen.

STUDENT SKILLS ASSESSMENT:

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

Kill or Keep?



SECURITY BRIEFING –

WORDS OF WISDOM FROM HANK THE COWDOG:

You partners ever heard of the saying “the only good snake is a dead snake,”? Well, I am the Cowdog responsible for that little gem. Unfortunately, Slim disagrees with me and so every time we see a snake, we have to check out what kind of snake it is before we decide if we are going to kill it or let it slither away. There are numerous types of snakes and some are **good**, and some are **bad**. The same goes for some of the rodents who crawl around our ranch. I am going to need your help in researching some of these **animals** to see if they are good or bad for a ranch and if we should keep them running around or get rid of them for good.

ACTIVITY MATERIALS:

- KILL OR KEEP CARD SORT
- KILL OR KEEP SCENARIO
- Insert page numbers of each activity page onto the “Game Materials” section of the Educator’s Guide Page

ACTIVITY INSTRUCTIONS:

1. After the reading, students complete the card sort activity as a review of the animals on the ranch
2. Student groups will then be assigned to be a “Rodent” or a “Snake” group
3. Student groups will then write out two scenarios- a “kill” scenario and a “keep” scenario
4. Student groups will then take turns acting out their scenarios in front of their classmates
5. Teachers may have students act out both scenarios, or choose a card (kill or keep) and act out the scenario card they chose
6. Teachers may have the class guess on the animal they feel the group was using as an example in their scenario

WRAP UP:

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



Kill or Keep?



NAME: _____ DATE: _____

READING NOTES

Record scenarios in which Loper, Slim or Sally May will have to make a decision about an animal.

ANIMAL	KILL <i>Provide a scenario as to why this decision is best for the ranch.</i>	KEEP <i>Provide a scenario as to why this decision is best for the ranch.</i>
mouse/ mice		
Norway Rat/ pack rat		
prairie dog		
jackrabbit		
cottontail rabbit		
burrowing owl		
hog nosed snake		
bullsnake		
rattlesnake		

Kill or Keep?



NAME: _____ DATE: _____

THE BOTTOM LINE

Answer the questions below.

1. Sort the following animals into the "KILL" or "KEEP" category

MOUSE/MICE

NORWAY RAT/PACK RAT

PRAIRIE DOG

JACKRABBIT

COTTONTAIL RABBIT

BURROWING OWL

HOG NOSED SNAKE

BULLSNAKE

RATTLESNAKE

KILL	KEEP

2. Did any animal have both KILL and KEEP scenarios? List them, if any.

3. Which animal would you be most likely to KILL? Why?

4. Which animal would you be most likely to KEEP? Why?



ACTIVITY 10

Hank's Hide-and-Go-Seek Race



RANCH LIFE SERIES / BOOK 3 / RANCH WILDLIFE

Chapter 8

Content Area

Science

Topic

Camouflage

Objective

Students will study and interact with animal camouflage in a ranch environment.

Texas Essential Knowledge and Skills (TEKS)

2.13B, 4.13B, 5.13B





Hank's Hide-and-Go-Seek Race

CONTENT AREA: Science

TOPIC: Camouflage

ACTIVITY MATERIALS:

- HIDE AND GO SEEK PICTURE (SEE INSERT): 1 COLOR IMAGE PER STUDENT GROUP OR 1 IMAGE PROJECTED FOR CLASS
- HIDE AND GO SEEK SCORE SHEET (PAGE A10 - 3): 1 PER STUDENT OR STUDENT GROUP
- THE BOTTOM LINE (PAGE A10 - 4): 1 PER STUDENT OR STUDENT TABLE GROUP

READING STRATEGY:

The activity will be completed after students have read chapter 8.

ACTIVITY INSTRUCTIONS:

1. Each group will need access to the HIDE AND GO SEEK PICTURE and HIDE AND GO SEEK SCORE SHEET.
2. If each team will receive a copy, distribute pictures face down. If you are projecting the image, wait until everyone is ready to begin.
3. Students will have 1 minute to study the picture and record the animals they find in the picture.
4. Students will only get credit for the animals they have written on their score sheet.
5. There are 13 animals hidden in the picture. The word bank has more than 13 animals listed.

STUDENT SKILLS ASSESSMENT:

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

Hank's Hide-and-Go-Seek Race



SECURITY BRIEFING –

WORDS OF WISDOM FROM HANK THE COWDOG:

You have learned a lot of information about the animals that can be found here on the ranch. We have talked about **traits**, **behaviors**, and **defenses** unique to each animal, but another thing that makes each animal unique is its covering. The animals on the ranch can “disappear” in their **habitat** by using their covering as **camouflage**. As the head of ranch security, I have trained my eyes to find these tricky critters. I have developed a training exercise to train your eyes to be as sensitive as mine. You will study a picture for one minute and find as many ranch animals as you can. Don't expect to find them all because I am telling you they disappear in their **environment**.

ACTIVITY MATERIALS:

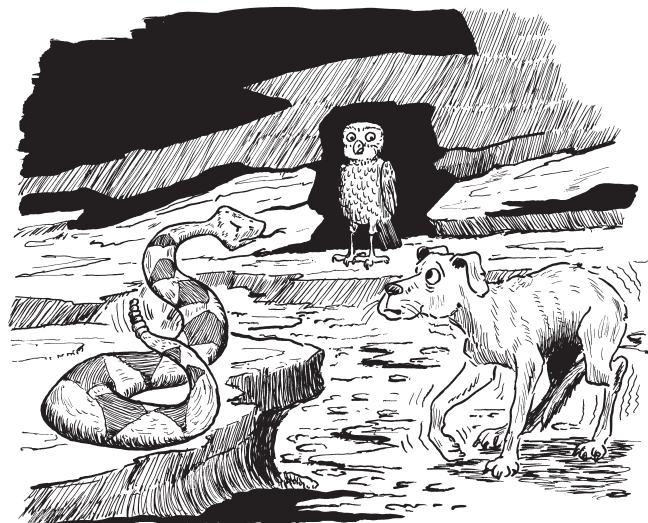
- HIDE AND GO SEEK PICTURE
- HIDE AND GO SEEK SCORE SHEET
- THE BOTTOM LINE

ACTIVITY INSTRUCTIONS:

1. You will receive the HIDE AND GO SEEK PICTURE face down. Wait to turn your paper over until your teacher says go.
2. You will have 1 minute to study the picture and record the animals you find in the picture.
3. When your teacher calls time turn your paper over.
4. You will only get credit for the animals you have written on your score sheet.

WRAP UP:

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



Hank's Hide-and-Go- Seek Race

SPOTTED!

Using the grid coordinates as a guide, write the name of the animal in the location where you found it in the ranch landscape.

RACCOON

WILD TURKEY

RATTLESNAKE

JACKRABBIT

BUZZARD

TURTLE

SKUNK

MULE DEER

KESTREL HAWK

AOUADAD SHEEP

PRAIRIE DOG

FIELD MOUSE

FERAL HOG

MOURNING DOVE

COTTONTAIL RABBIT

NORWAY RAT

PORCUPINE

BOBWHITE QUAIL

COYOTE

1	A	B	C	D	E	F	G	H	I	J	K	L	M	N	1
2															2
3															3
4															4
5															5
6															6
7															7
8															8
9															9
10															10
11															11
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	

Hank's Hide-and-Go-Seek Race



NAME: _____ DATE: _____

THE BOTTOM LINE

Answer the questions below:

1. Which animal was the most visible and easiest to find? _____

This animal is a: ☐ Predator ☐ Prey

Why was it easy to find?

2. Which animal was the least visible and most difficult to find? _____

This animal is a: ☐ Predator ☐ Prey

Why was it hard to find?

3. Why would animal prey need camouflage?

4. Why would animal predators need camouflage?

5. What color(s) are primarily found in the ranch environment? _____

What color(s) are primarily found in the coverings of ranch animals? _____

6. Based on the answers of Question 5 do you believe the ranch animals are successful or unsuccessful in camouflaging themselves in the ranch environment? _____

7. Hank has trained his eyes to spot animals better on the ranch, despite their camouflage.

How does a predator adapt to a prey's natural camouflage in order to find food?



ACTIVITY 11

Rank for Hank: Cold-Blooded Critters



RANCH LIFE SERIES / BOOK 3 / RANCH WILDLIFE

Chapter 8

Content Area

Science & Social Studies

Topic

Animal Impact on Natural Resources

Objective

Students will study and assign value to animal contributions in a ranch's ecosystem and economic success.

Texas Essential Knowledge and Skills (TEKS)*

3.12A, 5.12AC & 1.9B, 1.16B, 2.7A, 2.15B, 3.15E, 4.11B, 4.19B, 5.12B, 5.23B





Rank for Hank: Cold-Blooded Critters

CONTENT AREA: Science & Social Studies

TOPIC: Animals' Value to the Ecosystem and Economics of a Ranch

ACTIVITY MATERIALS:

- RANK FOR HANK DATA RECORDING SHEET (PAGE A11 - 4): 1 PER STUDENT OR STUDENT TABLE GROUP
- NOTES: RANK FOR HANK (PAGE A11 - 3): 1 PER STUDENT

READING STRATEGY:

- Review the terms "economic value" and "ecosystem value" with your students. Create a word wall or visual reference for students to refer to during the reading.

ECOLOGICAL VALUE: On a ranch, ecological value is determined by the contribution of a species (*plant or animal*) to the healthy preservation of the ecosystem (*how organisms coexist with one another*).

EXAMPLES: Healthy grass is EXTREMELY VALUABLE to the ranch's ecosystem because it is needed to nourish and grow wildlife populations, such as cattle. Cattle grub insects would be VERY DESTRUCTIVE to the ranch's ecosystem because they can be fatal to a cattle population.

ECONOMIC VALUE: On a ranch, economic value is determined by the contribution of a species (*plant or animal*) to the *financial benefit* gained or lost in the business of ranching. Wildlife presence/behavior, the weather, and natural disasters greatly impact this value.

EXAMPLE: Healthy grass is EXTREMELY VALUABLE to a ranch's economics because it strengthens the goods and services of the ranch (it feeds cattle, improves the landscape, and provides natural wildfire management).

- The teacher can read aloud or have students read aloud with a group or partner. Every time you read something that has an animal gain or lose value (economic or in the ecosystem), write it down in your notes under that animal.

ACTIVITY INSTRUCTIONS:

1. Read the chapter aloud to your students, or have students read aloud in groups
2. Each student or student group needs a page to write down notes
3. As the teacher/student(s) reads, students record gains and losses of value for each animal on the ranch
4. Students may complete the BOTTOM LINE handout or move on to #5
5. Students will then use their notes to complete a bar graph giving value to each of the animals in the activity

STUDENT SKILLS ASSESSMENT:

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

Rank for Hank: Cold-Blooded Critters

SECURITY BRIEFING –

WORDS OF WISDOM FROM HANK THE COWDOG:

You did some research on lots of **animals** and it is time to see if you can figure out which ones can help our ranch and which ones can hurt our ranch. Let's calculate their value! Each of these animals can add or subtract **value** to our ranch. All of the animals interact with the **environment** and a healthy ecosystem on the ranch means a healthy herd of cattle! Some of these animals can also cost Sally May and Loper a lot of money. That means the most important part of the ranch (me) might not get food in his bowl. It is time to figure out which animals are the **MOST** beneficial to the ranch. As Head of Security, it is important to know which animals for me to chase off and which ones I need to protect!

ACTIVITY MATERIALS:

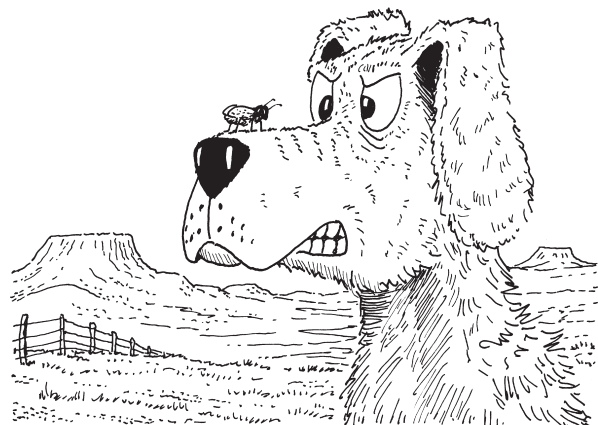
- RANK FOR HANK DATA RECORDING SHEET
- NOTES: RANK FOR HANK
- Insert page numbers of each activity page onto the "Game Materials" section of the Educator's Guide Page

ACTIVITY INSTRUCTIONS:

1. Each student will need a RANK FOR HANK NOTES PAGE
2. Have students write notes on the value of each animal on the ranch. Values should be categorized into Economic Value and Value to the Ecosystem.
3. When students are done with their notes, they will fill in the RANK FOR HANK DATA RECORDING SHEET

WRAP UP:

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



Rank for Hank: Cold-Blooded Critters



NAME: _____ DATE: _____

READING NOTES

As your teacher reads, write down how each animal affects the different values of a ranch.

CRITTER	ECOSYSTEM VALUE		ECONOMIC VALUE	
	List the way(s) this animal HELPS the ranch's ECOSYSTEM.	List the way(s) this animal HARMS the ranch's ECOSYSTEM.	List the way(s) this animal HELPS the ranch's ECONOMICS.	List the way(s) this animal HARMS the ranch's ECONOMICS.
Hog-Nose Snake				
Bullsnake				
Rattlesnake				
Lizards				
Frogs				
Turtles				
Flies				
Mosquito				
Buffalo Gnats				
Yellowjacket Wasp				
Scorpions				

Rank for Hank: Cold-Blooded Critters



NAME: _____ DATE: _____

DATA RECORD

Reference your notes from the reading and the glossary below to compile information about each cold-blooded ranch animal. Assign a number value to each animal that reflects your findings.

ECOLOGICAL VALUE: On a ranch, ecological value is determined by the contribution of a species (*plant or animal*) to the healthy preservation of the ecosystem (*how organisms coexist with one another*).

ECONOMIC VALUE: On a ranch, economic value is determined by the contribution of a species (*plant or animal*) to the *financial benefit* gained or lost in the business of ranching. Wildlife presence/behavior, the weather, and natural disasters greatly impact this value.

CRITTER	CONTRIBUTION TO RANCH		VALUE TO THE RANCH						
	ADDS VALUE	SUBTRACTS VALUE	Compare number of "Helps" to "Harms" to the ranch to RATE EACH ANIMAL'S VALUE						
	Use a tally mark for each "help"	Use a tally mark for each "harm"	0 = Very Destructive 1 = Harmful 2 = Neither Harmful or Valuable 3 = More Valuable Than Harmful 4 = Valueable 5 = Extremely Valueable						
Hog-Nose Snake			Ecological Value	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
			Economic Value	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Bullsnakes			Ecological Value	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
			Economic Value	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Rattlesnakes			Ecological Value	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
			Economic Value	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Lizards			Ecological Value	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
			Economic Value	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Frogs			Ecological Value	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
			Economic Value	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Turtles			Ecological Value	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
			Economic Value	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Flies			Ecological Value	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
			Economic Value	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Mosquito			Ecological Value	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
			Economic Value	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Buffalo Gnat			Ecological Value	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
			Economic Value	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Yellowjacket Wasp			Ecological Value	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
			Economic Value	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Scorpions			Ecological Value	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
			Economic Value	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5



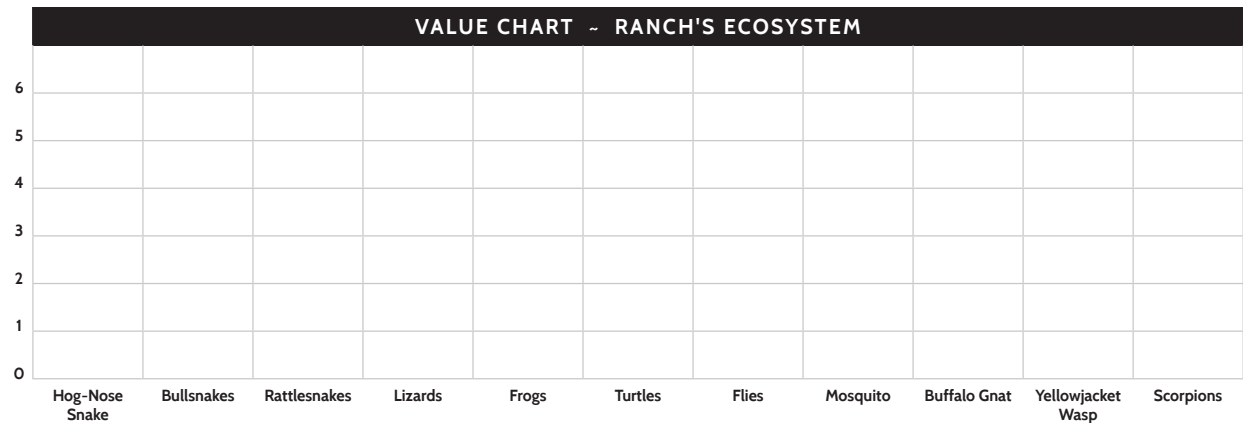
Rank for Hank: Cold-Blooded Critters



NAME: _____ DATE: _____

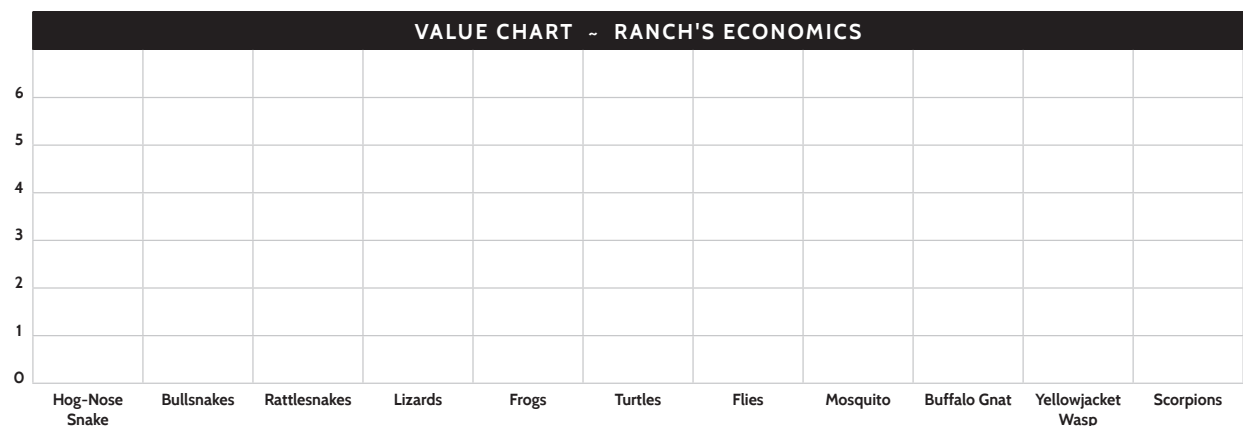
THE BOTTOM LINE

Transfer the values you assigned to each animal on your DATA RECORD to the charts below, then answer the questions, giving justifications for your answers.



I think the _____ brings the MOST value to the ranch's ECOSYSTEM because...

I think the _____ brings the LEAST value to the ranch's ECOSYSTEM because...



I think the _____ brings the MOST value to the ranch's ECONOMICS because...

I think the _____ brings the LEAST value to the ranch's ECONOMICS because...



ACTIVITY 12

Hank's Crazy Creature Creation



RANCH LIFE SERIES / BOOK 3 / RANCH WILDLIFE

Chapter 10

Content Area

Science & Social Studies

Topic

Animal Structure and Function

Objective

Students will assess the contribution of an animal's structure and function to its survival and value to a ranch.

Texas Essential Knowledge and Skills (TEKS)*

2.13B, 3.13A, 4.13AB, 5.13AB & 1.9B, 1.16B, 2.7A, 2.15B, 3.15E, 4.11B, 4.19B, 5.12B, 5.23B





Hank's Crazy Creature Creation

CONTENT AREA: Science and Social Studies

TOPIC: Science- Animal Structure and Function
Social Studies- Animal Values on a Ranch

ACTIVITY MATERIALS:

- RANCH ANIMAL PICTURES (PAGE A12 - 3): 1 PER STUDENT
- COMPLETED RANK FOR HANK WORKSHEETS FOR CHAPTERS 2-3, 4-6, AND 7-9.
- SCISSORS: 1 PER STUDENT
- TAPE: 1 PER TABLE GROUP
- BOX OF MARKERS: 1 PER TABLE GROUP
- 11X17 BLANK PAPER OR BUTCHER PAPER: 1 PER STUDENT
- THE BOTTOM LINE (PAGE A12 - 4): 1 PER STUDENT OR STUDENT TABLE GROUP

READING STRATEGY:

The activity will be completed after students have read Book 3 Ranch Wildlife.

ACTIVITY INSTRUCTIONS:

1. Each group will need a set of RANCH ANIMAL PICTURES and the three completed Rank for Hank Worksheets for chapters 2-3, 4-6, and 7-9.
2. Students will stack their ranch animal pictures so that the animals are horizontal. Tape the spine of the pictures to create a "book" on their blank paper. You may also print all wildlife images and place into a three prong folder or binder to create the flip book. 
3. Once pictures are taped in place, students will carefully cut the images so they have a "head" section, "body" section, and a "tail" section. 
4. Using the information students collected during the Rank for Hank activities, students will create unique ranch creatures by selecting a head, body, and tail from their flip book. Their selections should be based on physical characteristics or defenses they discovered about each animal or an economic impact they learned about while reading Hank the Cowdog. The goal is to create a creature that is perfectly adapted for the ranch or would have the greatest economic benefit to Mr. Loper.
5. Students will present their creature to the class and explain why they choose each section of the creature.

STUDENT SKILLS ASSESSMENT:

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

Hank's Crazy Creature Creation



SECURITY BRIEFING –

WORDS OF WISDOM FROM HANK THE COWDOG:

*There are a lot of critters running around on the ranch, but sometimes I wonder what would happen if I took all the best **defenses** from each **animal** and made a crazy creature. For example, I think it is pretty cool that a skunk can fire its musk any time it wants. It is like a secret weapon. I mean, if I could do that, I would fire at will any time Plato came near my girlfriend! Or...if all the chickens could shoot quills out like a porcupine then it would save a lot of money. It would be pretty funny to see a coyote or a raccoon full of quills after trying to steal a chicken! I wonder what type of crazy creatures you can come up with?*

ACTIVITY MATERIALS:

- RANCH ANIMAL PICTURES
- Completed Rank for Hank posters for chapters 2-3, 4-6, and 7-9.
- Scissors
- Tape
- Box of Markers
- Blank Paper or Butcher Paper
- THE BOTTOM LINE

ACTIVITY INSTRUCTIONS:

1. You will need a set of RANCH ANIMAL PICTURES and the three completed Rank for Hank posters for chapters 2-3, 4-6, and 7-9.
2. Stack your ranch animal pictures so the animals are horizontal. Tape the spine of the pictures to create a “book”. 
3. Once your pictures are taped in place, you will carefully cut the images so they have a “head” section, “body” section, and a “tail” section. 
4. Using the information your group collected during the Rank for Hank activities, you will create unique ranch creatures by selecting a head, body, and tail from their flip book. Your selections should be based on physical characteristics or defenses you discovered about each animal or an economic impact you learned about while reading Hank the Cowdog. The goal is to create a creature that is perfectly adapted for the ranch or would have the greatest economic benefit to Mr. Loper.
5. You will present your creature to the class and explain why you choose each section of the creature using THE BOTTOM LINE to guide you.

WRAP UP:

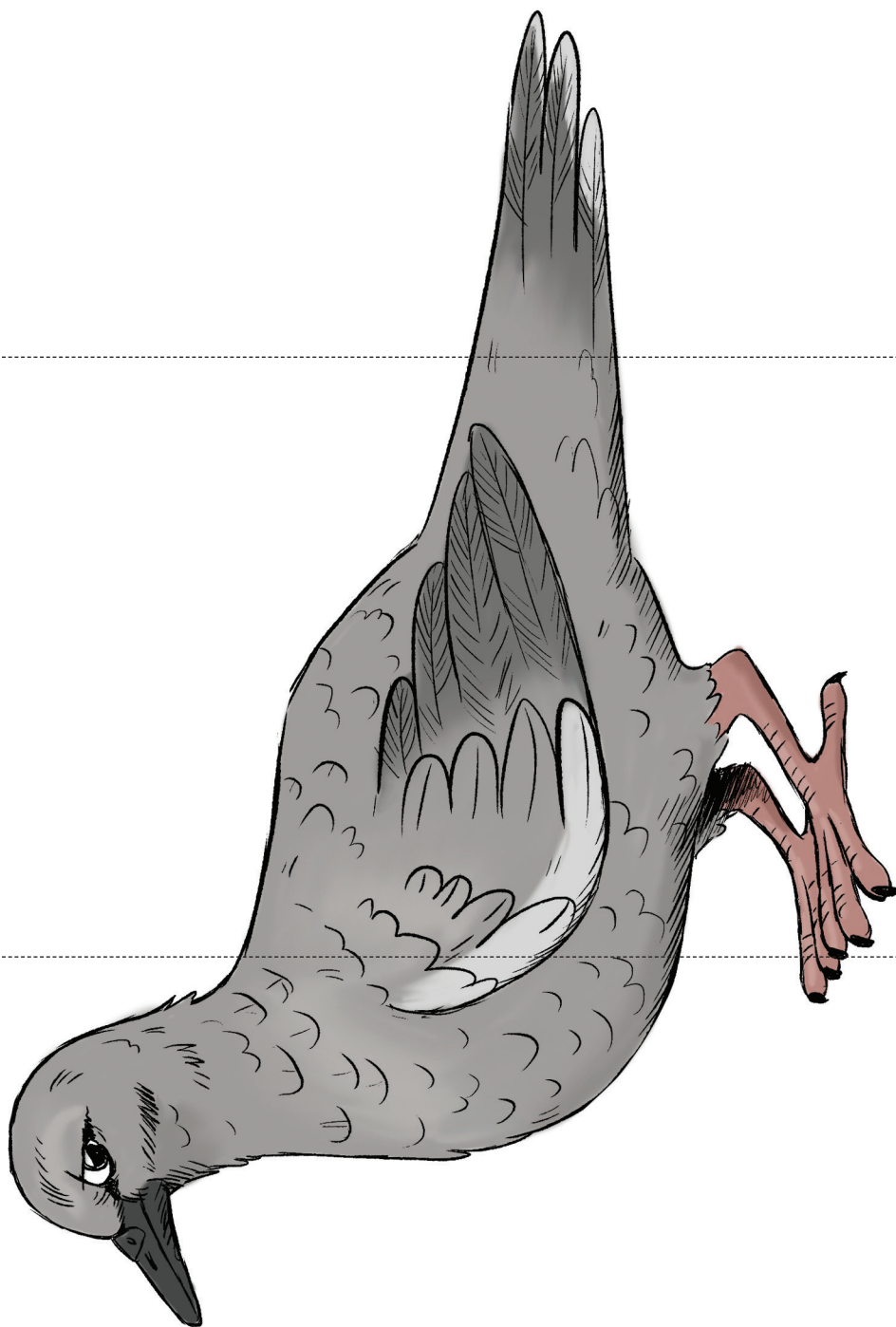
Fill out THE BOTTOM LINE worksheet after you have completed the activity.

BOBWHITE QUAIL

BOBWHITE QUAIL

BOBWHITE QUAIL

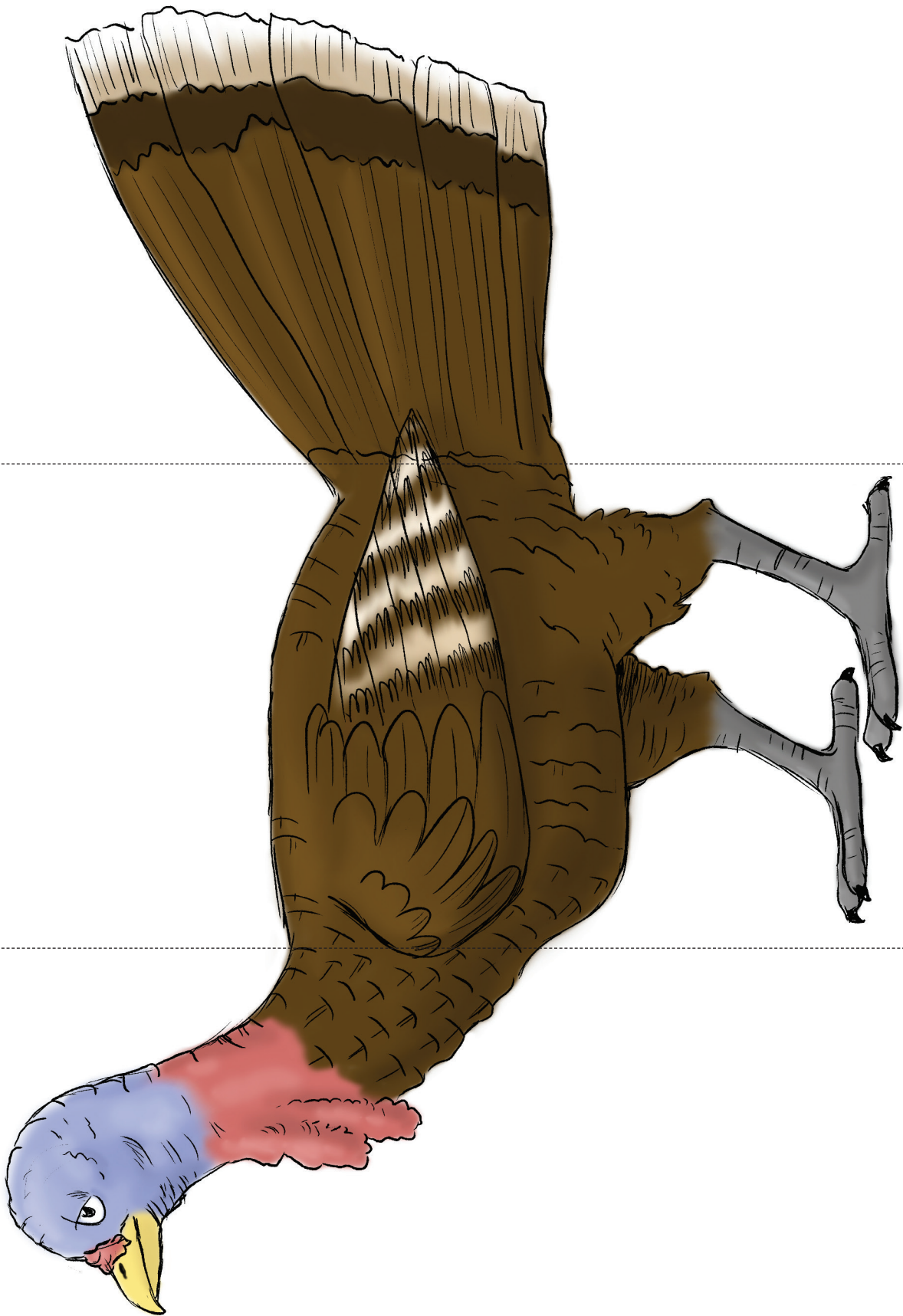




MOURNING DOVE

MOURNING DOVE

MOURNING DOVE



WILD TURKEY

WILD TURKEY

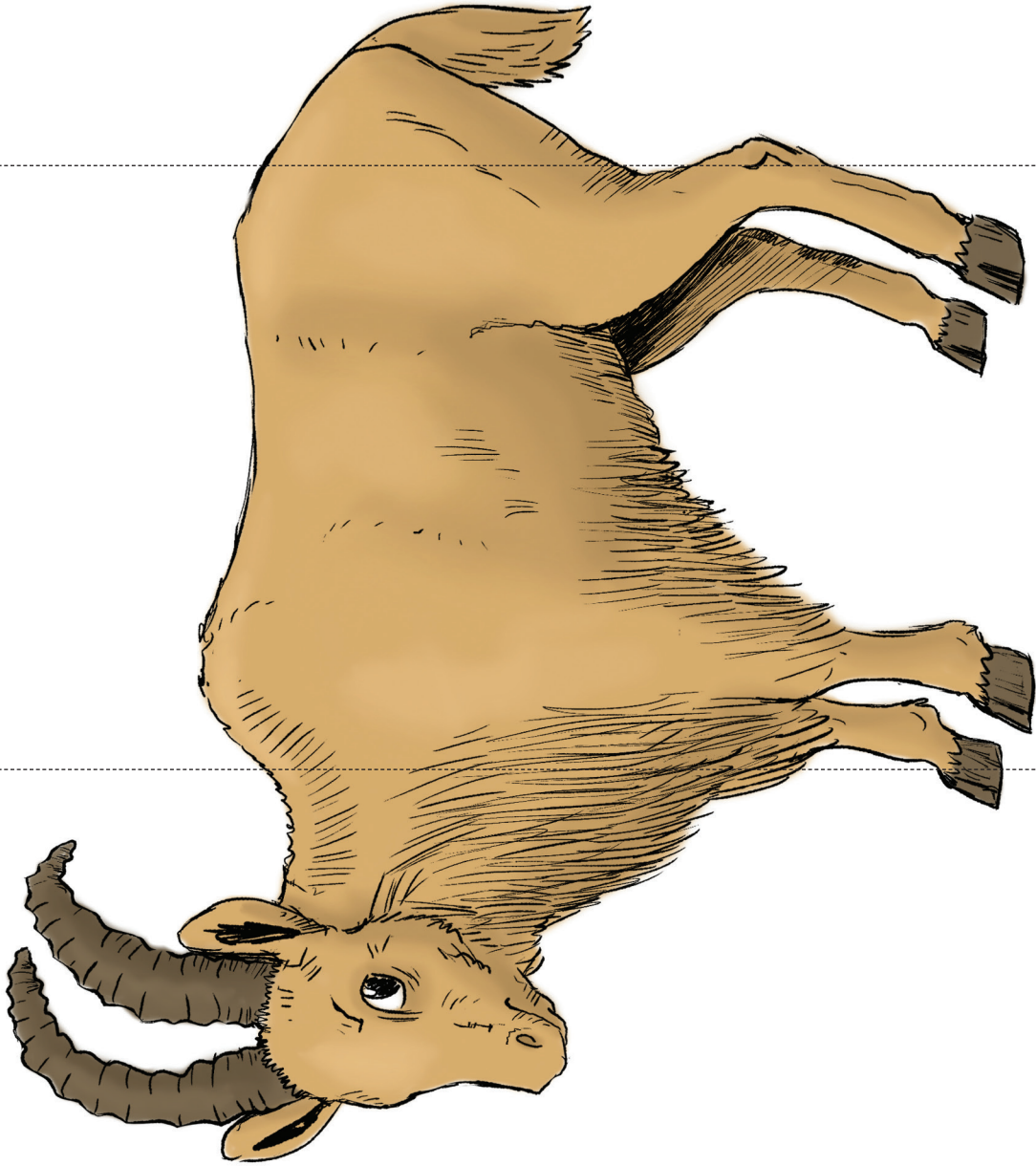
WILD TURKEY



TURKEY VULTURE (BUZZARD)

TURKEY VULTURE (BUZZARD)

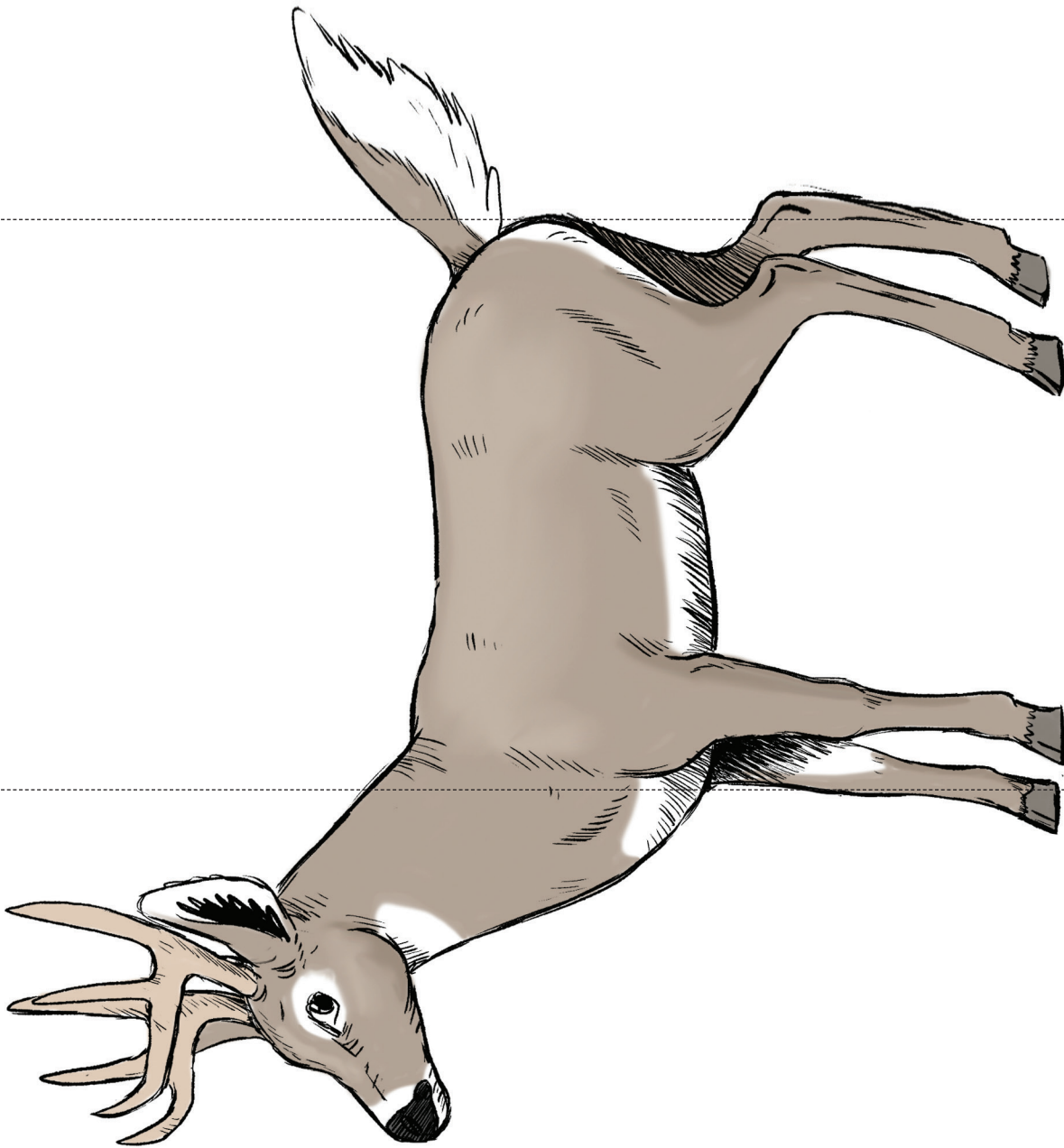
TURKEY VULTURE (BUZZARD)



AOUDAD SHEEP

AOUDAD SHEEP

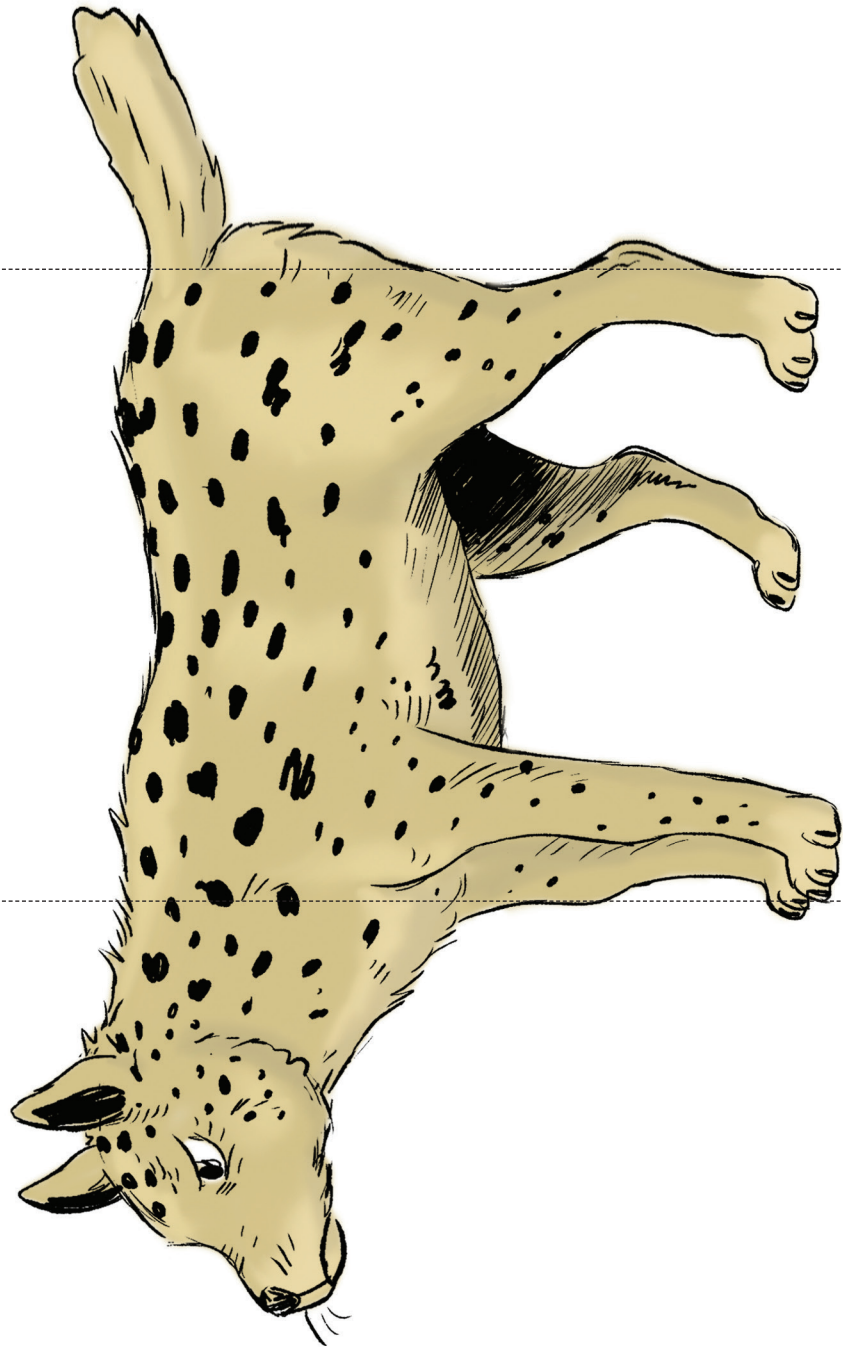
AOUDAD SHEEP



WHITE TAIL DEER

WHITE TAIL DEER

WHITE TAIL DEER



BOBCAT

BOBCAT

BOBCAT



COYOTE

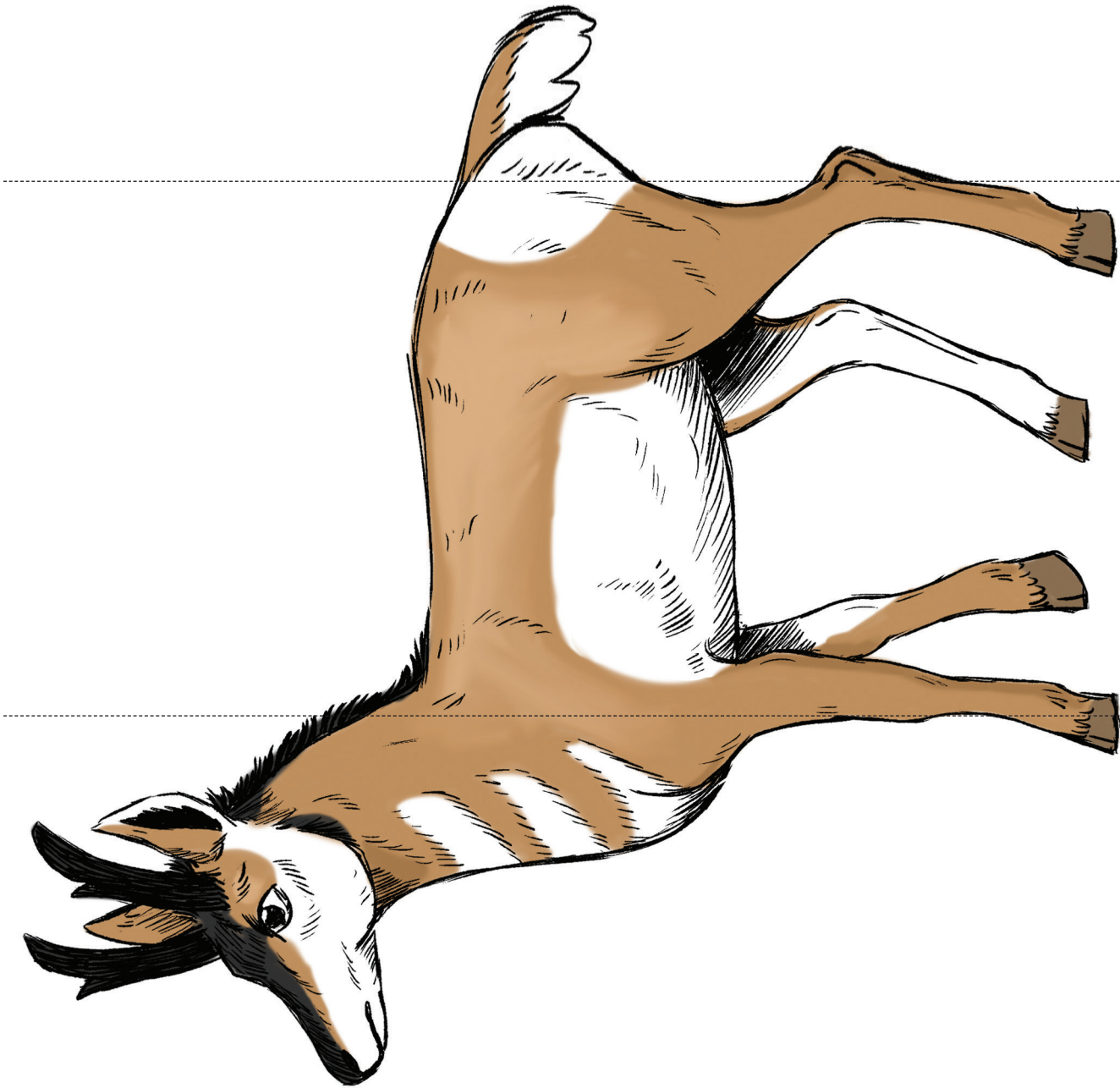
COYOTE

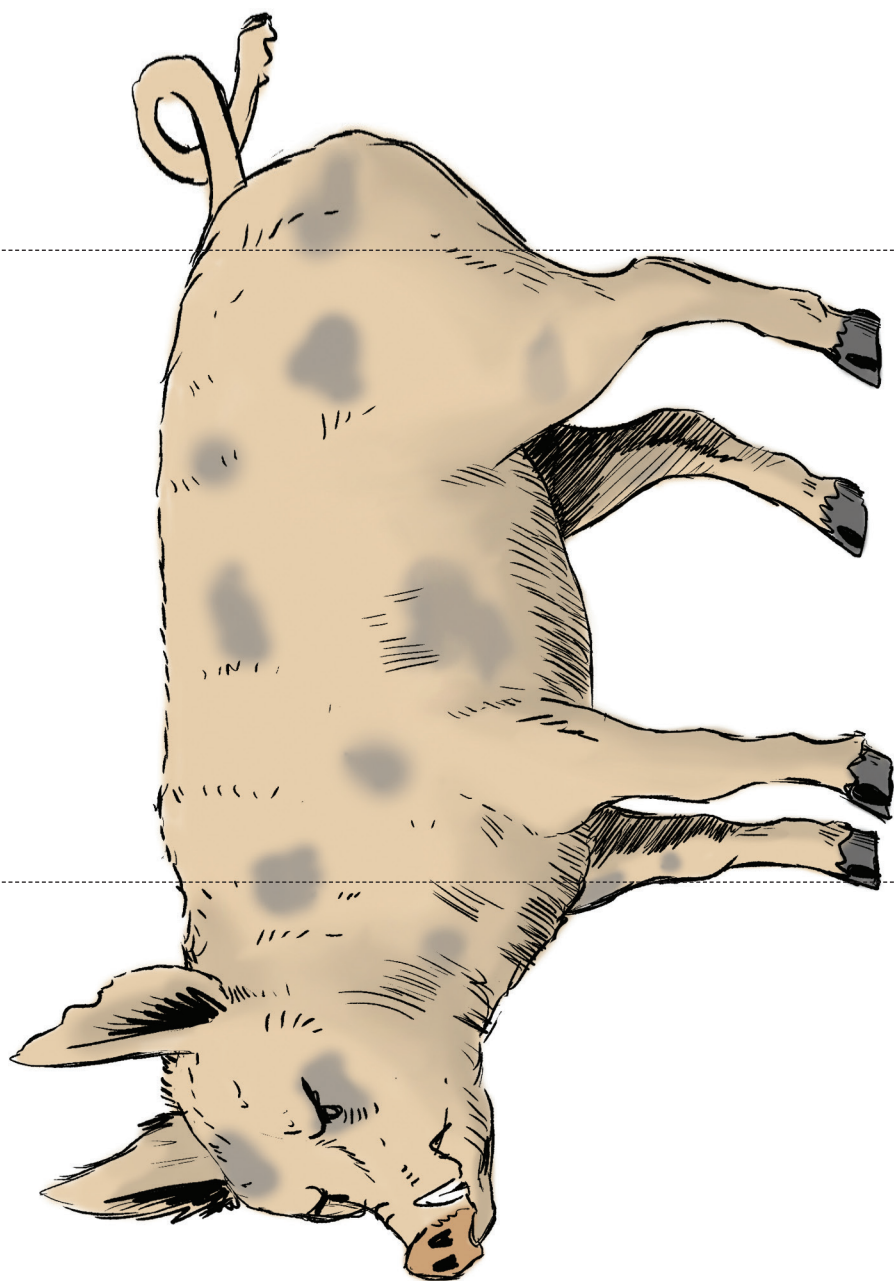
COYOTE

PRONGHORN ANTELOPE

PRONGHORN ANTELOPE

PRONGHORN ANTELOPE





FERAL HOG

FERAL HOG

FERAL HOG



PORCUPINE

PORCUPINE

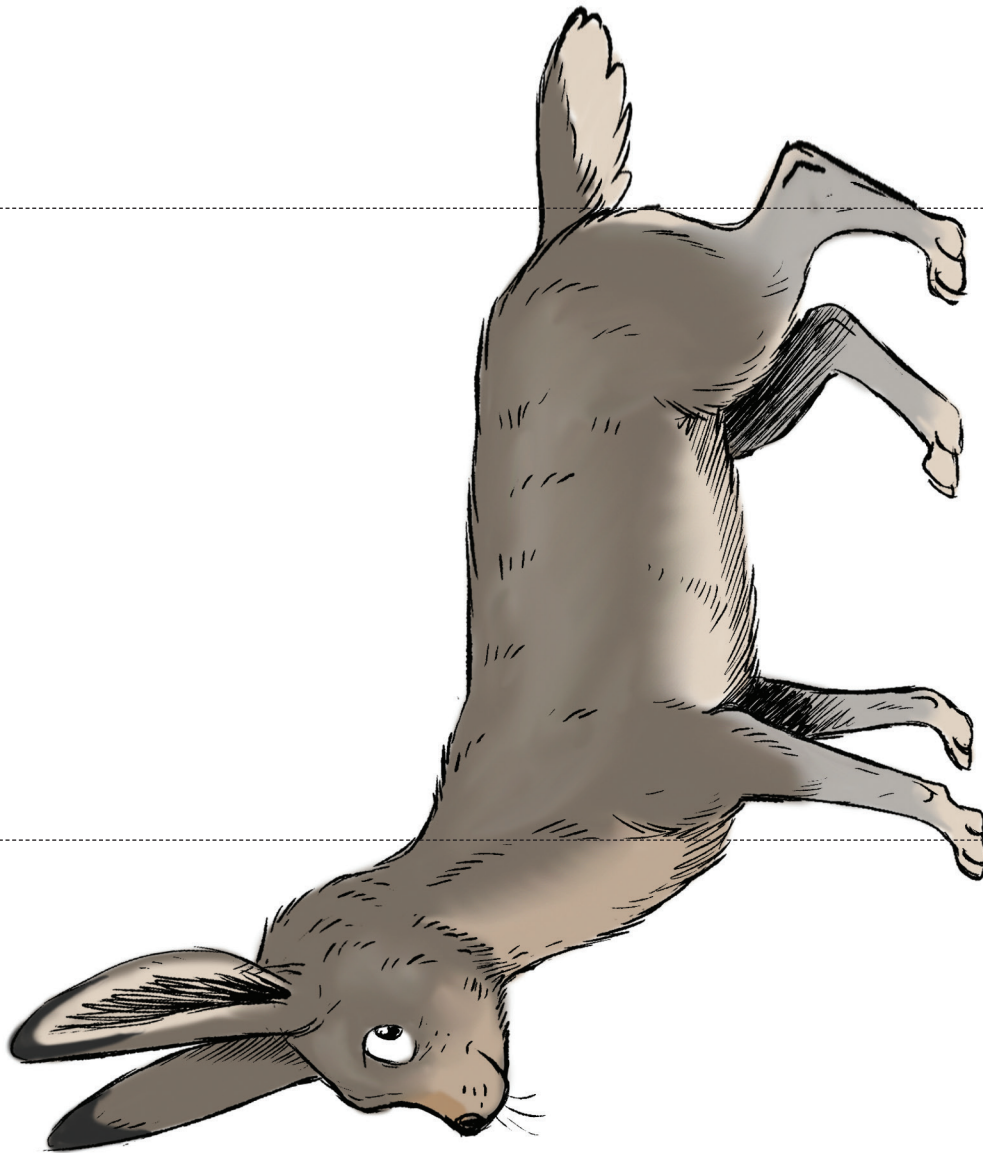
PORCUPINE



RACCOON

RACCOON

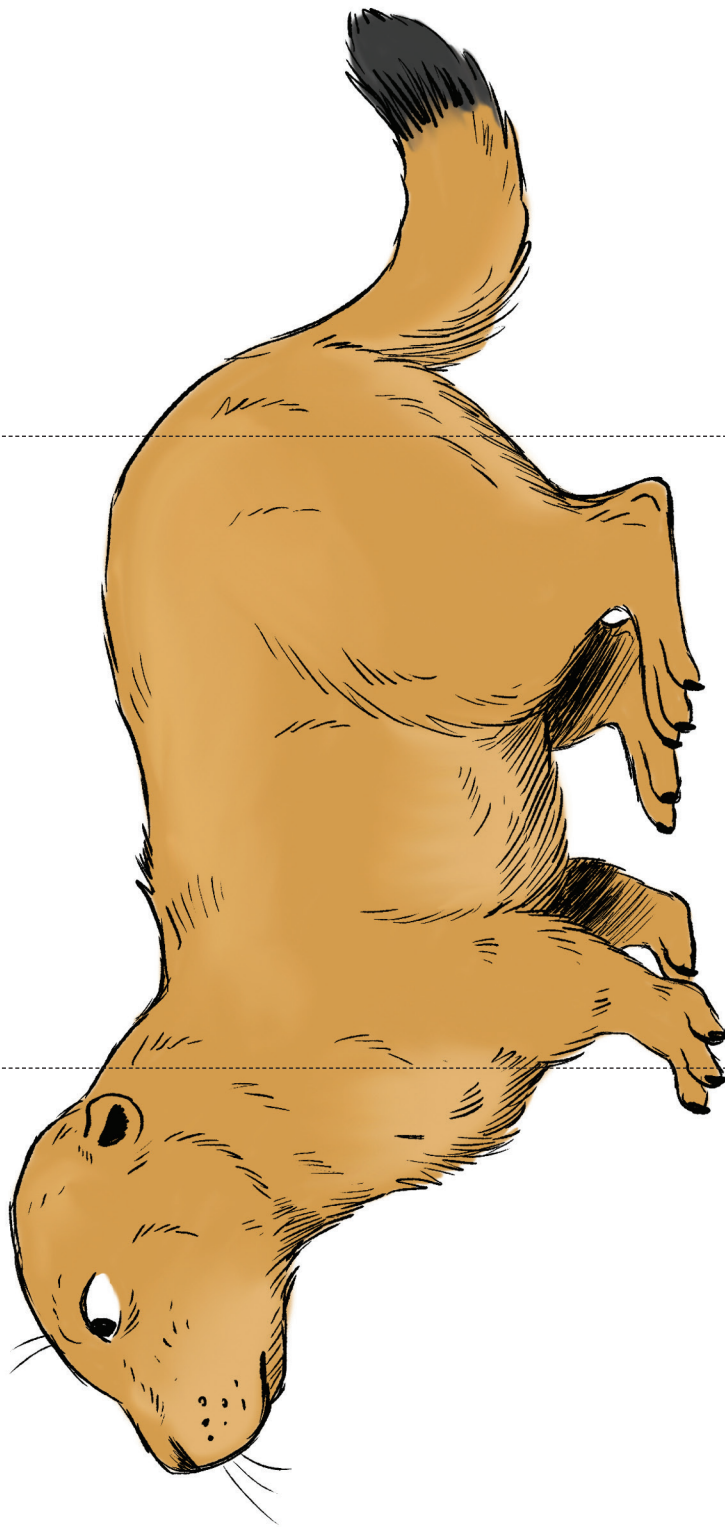
RACCOON



JACKRABBIT

JACKRABBIT

JACKRABBIT



PRAIRIE DOG

PRAIRIE DOG

PRAIRIE DOG



RED TAILED HAWK

RED TAILED HAWK

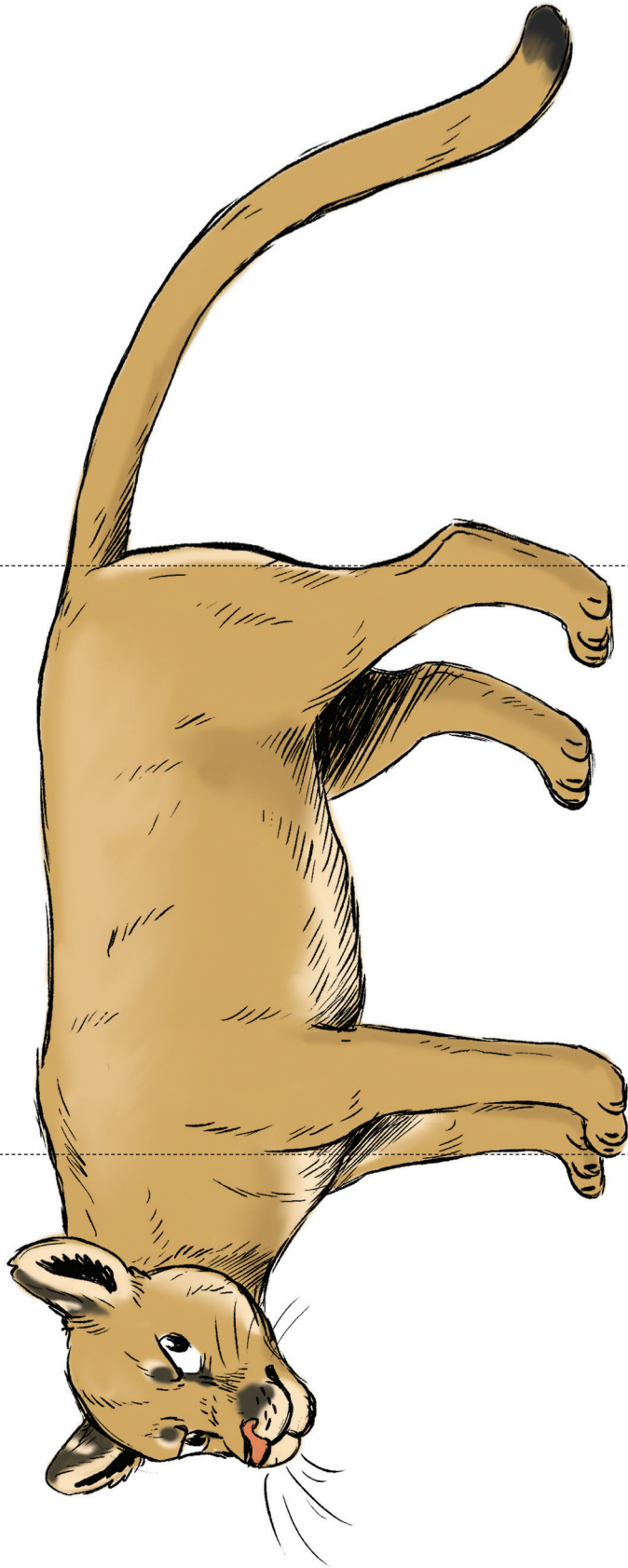
RED TAILED HAWK



SKUNK

SKUNK

SKUNK



MOUNTAIN LION

MOUNTAIN LION

MOUNTAIN LION

Hank's Crazy Creature Creation



NAME: _____ DATE: _____

THE BOTTOM LINE

Here is my Crazy Creature Creation! (*Show creature to class.*)

1. I choose the _____ head because:

2. I choose the _____ body because:

3. I choose the _____ tail because:

4. I think this would be a good addition to Hank's ranch because:

