Grades 3-5

English Language Arts, Math



Objectives

Students will read about longhorn cattle and answer comprehension questions. Students will measure the spans of longhorn horns from pictures included with this lesson and convert the measurements. Students will answer questions from a chart about numbers of cattle driven to market between 1867 and 1881 and graph the information.

Vocabulary

feisty—very lively and aggressive

longhorn—cattle with long curving horns which the Spanish explorer Coronado originally brought to the North American continent

ranching—the activity of raising animals on a ranch

temperament—the usual attitude, mood, or behavior of a person or animal

vaqueros— cowboys from Mexico

Background

Ranching was developed by the Spanish, who taught it to the people who lived in the area we now know as Mexico. In the beginning, ranch hands did all their work on foot. Only the privileged Spanish ranchers rode horses. In time, the ranchers discovered their workers needed to move more quickly to avoid the deadly long horns and **feisty temperaments** of their cattle. So the Mexican **vaqueros**, or cowboys, became skilled riders. They were the models for the American cowboy.

The first American cowboys rounded up wild **longhorn** cattle in Texas Territory and drove them north to railway stops like Dodge City, Kansas. There the cattle would be herded into railroad cars and sent to the eastern United States to provide meat for the people living there.

Many of the longhorns which made the first cattle drives were gathered in a criminal way. Texas cowboys would cross into Mexico, gather wandering cattle, and drive them back across the Rio Grande River into land not governed by Mexican laws. The longhorns may have been marked in some fashion by the *vaqueros*—by ear notching or branding—but in Texas Territory it did not matter.

Eventually ranch wars over longhorn cattle erupted along the river. Hired cowboys on both sides of the river would cross to steal longhorns, only to have them stolen back by cowboys on the other side. Many cowboys were killed in these wars.

One of the most famous longhorn steers, Old Blue, was owned by Charles Goodnight, a Texas rancher who blazed the Goodnight - Loving Trail to make way for other ranchers who would come later. Old Blue was a lead steer. One characteristic of cattle and other herd animals is they always follow the lead of a dominant member. These natural leaders are the first to cross streams, gullies, and other obstacles, showing others the way.

Old Blue made the long trek from West Texas to Dodge City eight times, leading an estimated 10,000 head of cattle. After his last cattle drive, Old Blue was turned out to live his final days in leisure, in a pasture near the Goodnight Ranch. When he died, his massive horns were mounted and hung in the Goodnight ranch office.

Get the Point (continued)

Unlike beef cattle, longhorn cattle are not always sold by the pound. Instead, longhorn cattle are also sold by the inch, in other words the length of their horns can determine their value. Longhorn cattle also produce lean beef and are sometimes crossbred with traditional beef cattle to produce leaner cuts of beef. Longhorn calves also typically have a smaller birth weight. Therefore, longhorn bulls are sometimes bred to heifers to allow for easier calving.

Texas longhorn cattle were on their way to extinction. However, in the 1920's and 1930's the federal government stepped in to save them. They created two herds which were protected. One of these herds was in Oklahoma, the other herd was in Nebraska. The protected Longhorn herd in Oklahoma live at the Wichita Mountains Wildlife Refuge near Cache, Oklahoma. Here, they enjoy grazing on the twenty-four-thousand-acre pasture. The horns of the steers living at the refuge are not measured yearly, however, measurements are recorded as opportunities come up to measure them. Five-foot-plus spans are quite common for steers ten years and older. Visitors to the Wichita Mountains Wildlife Refuge can view a mounted longhorn in the office. This head is of an eleven-year-old animal which was killed in an accident. The "pole" measurement (in a straight line from tip to tip) is five feet two inches. However, the "along the curves" measurement is nine feet three inches.

Additional Reading

McPherson, James M., Into the West, Atheneum, 2006.

Murdoch, David Hamilton, Cowboy, Eyewitness Books, Knopf, 1993.

Schlissel, Lillian, *Black Frontiers: A History of African American Heroes in the Old West*, Simon and Schuster for Young Readers, 2000.

Websites

https://www.fws.gov/refuge/Wichita Mountains/wildlife/longhorns.html

https://www.americanheritage.com/saving-longhorns

https://www.npr.org/templates/story/story.php?storyId=120823240?storyId=120823240

http://www.tlbaa.org/tlbaa/tlbaa-educationalsearch-committee/

Activity 1: History of Longhorns, (ELA) 1 50 minute class period

Students will read the brief history of longhorn cattle and discuss their effect on the American cattle industry. Students will use the information to answer comprehension questions.

Oklahoma Academic Standards

Activity 1: History of Longhorns (ELA)

3.2.R.1 4.2.R.1	Students will locate the main idea and distinguish how key details support the main idea of a text or section of text.
5.2.R.1	Students will create an objective summary, including main idea and supporting details, while maintaining meaning and a logical sequence of events.

Materials:

- Activity 1, Reading Page 1 "History of Longhorns"
- Activity 1, Worksheet 1 "History of Longhorns Reading Comprehension"
- Activity 1 Worksheet 2 "History of Longhorns Main Idea"

Procedures

- 1. Read and discuss background and vocabulary.
- 2. Hand out copies of Activity 1, Reading Page 1 "History of Longhorns."
 - —As a class, read the brief history of longhorn cattle and discuss their effect on the American cattle industry.
- 3. Students will use the information to answer the questions on Activity 1, Worksheet 1 "History of Longhorns Reading Comprehension."
 - —Discuss student answers as a class.
- 4. Students will complete Activity 1 Worksheet 2 "**History of Longhorns Main Idea**," by listing the main idea of the passage and at least three supporting details.

Christopher Columbus brought longhorn cattle to the New World on his second visit, in 1493. The cattle were a source of fresh meat for early Spanish settlers. Cattle were also used for trading. The cattle were allowed to roam in the wide open spaces of the New World. Over time, some of the cattle roamed away. These untamed, or feral, longhorns crossed between Mexico and Texas Territory because there were no fences to stop them.

Soldiers coming home from the Civil War heard stories of fat cattle roaming free. Many were eager to round up their own herds of longhorns. They wanted to become ranchers. Longhorns can be



good cattle to start a ranch with. Longhorns adjust easily to weather changes. They will try to eat all types of grasses. They are a healthy breed. They can travel a great distance without much water.

The market for cattle grew as the demand for fresh beef grew. The beginning of refrigeration also caused the demand for cattle to grow. The increase in railroads drove the price of cattle up, too. To sell the cattle, they had to be taken to the railroad stops. There they could be loaded and shipped to the eastern states. To get the cattle to market in Kansas, cowboys in Texas had to walk them. This started the cattle drives of the Old West.

Activity 1 Worksheet 1: History of Longhorns Reading Comprehension



Name:	Date:
After reading the History of Longhorns Reading page,	answer these questions.
1. What is an antonym for the word "feral?"	
	····
2. In the sentence "longhorns adjust easily to weather cha	inges" what do you think the
word "adjust" means?	
3. Explain why soldiers returning from the Civil War might	be interested in rounding up
longhorn cattle.	
4. What three things drove up the price of cattle after the 0	Civil War?
	·····

Activity 1 Worksheet 1: History of Longhorns Reading Comprehension



ANSWER KEY Name: Date:	
After reading the History of Longhorns Reading page, answer these question	S .
1. What is an antonym for the word "feral?"	
The word "tame" is an antonym for the word "feral."	
2. In the sentence "longhorns adjust easily to weather changes" what do you think t	he
word "adjust" means?	
Longhorns can get along, or survive, in any kind of weather.	
3. Explain why soldiers returning from the Civil War might be interested in rounding	up
longhorn cattle.	
Soldiers returning from the war were young men looking for a way to make a living. They could m	<u>ake</u>
money by rounding up the cattle and driving them to the railway stops in Kansas.	
4. What three things drove up the price of cattle after the Civil War?	
The demand for fresh beef, the beginning of refrigeration and the increase in railroads drove the	<u>orice</u>
of cattle up.	

Activity 1 Worksheet 2: History of Longhorns Main Idea



Name:		Date:
	norns reading page. Write a Include the most significan	
	MAIN IDEA	
SUPPORTING		SUPPORTING
DETAIL	SUPPORTING DETAIL	DETAIL

Activity 2: Measuring Longhorn Horns, (Math) 1 50 minute class period

Students will use the steps required to measure longhorn horns and to convert the information into real numbers using a scale measurement.

Oklahoma Academic Standards

Activity 2: Measuring Longhorn Horns (Math)

3.GM.2.3	Choose an appropriate measurement instrument and measure the length of objects to the nearest whole centimeter or meter.
3.GM.2.4	Choose an appropriate measurement instrument and measure the length of objects to the nearest whole yard, whole foot, or half inch.
4.GM.2.4	Choose an appropriate instrument and measure the length of an object to the nearest whole centimeter or quarter-inch.
5.GM.3.2	Choose an appropriate instrument and measure the length of an object to the nearest whole centimeter or 1/16-inch.
5.GM.3.3	Recognize and use the relationship between inches, feet, and yards to measure and compare objects.

Materials:

- Activity 2, Worksheet 1 "Measuring Longhorn Horns"
- Yardsticks and rulers

Procedures

- 1. Review with students the steps required to measure an item and to convert the information into real numbers using a scale measurement.
- 2. Students will spread their arms from side to side and take a measurement using a yardstick to put into perspective how longhorns horns are measured.
- 3. Hand out copies of Activity 2, Worksheet 1 "Measuring Longhorn Horns."
 - —Students will follow directions on the worksheet. <u>Measurements can vary, depending on the printer used.</u>
- 4. Hand out the chart showing the number of cattle driven to market between 1867 and 1881.
 - —Students will use the information to answer the questions.
 - —Ask students if they can think of reasons for the change in numbers. (For the first five years, the number of longhorn cattle leaving Texas increased steadily. An oversupply brought prices down dramatically, and two years later a crippling depression hit.)
- 5. Students will use an appropriate graphing tool to organize their data (Excel spreadsheet, line plot, pictograph.)

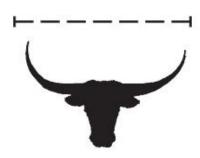
Activity 2 Worksheet 1: Measuring Longhorn Horns



Name: ______ Date: _____

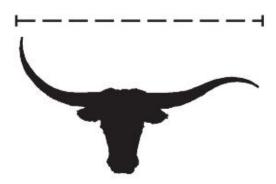
Measure the span between the tips of each longhorn's horns. Measure the spans in inches and then in centimeters. Convert inches into feet with the following scale:

1 inch = 2 feet.



1. _____ centimeters inches

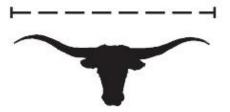
feet



3. centimeters

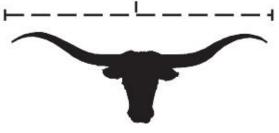
_____ inches

feet



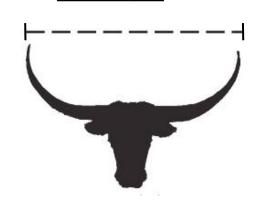
5. _____ centimeters

_____inches feet



2. _____ centimeters

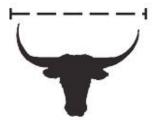
_____inches



4. centimeters

_____ inches

_____ feet



6. centimeters

_____inches

_____ feet

Activity 2 Worksheet 1: Measuring Longhorn Horns

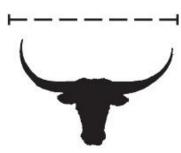


ANSWER KEY

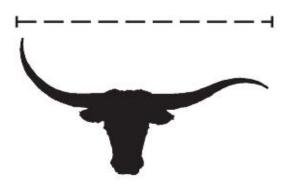
Name: ______ Date: _____

Measure the span between the tips of each longhorn's horns. Measure the spans in inches and then in centimeters. Convert inches into feet with the following scale:

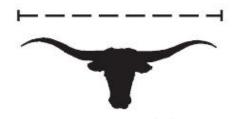
1 inch = 2 feet.



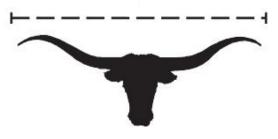
1. <u>4.5</u> centimeters <u>1.75</u> inches 3.5 feet



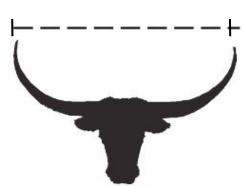
3. <u>6</u> centimeters <u>2.25</u> inches 4.5 feet



5 centimeters
 2 inches
 4 feet



2. 6.5 centimeters
 2.5 inches
 5 feet



4. <u>5.5</u> centimeters <u>2.125</u> inches 4.25 feet



6. <u>3</u> centimeters <u>1.25</u> inches <u>2.5</u> feet

Activity 3: Cattle Drives, (Math) 1 50 minute class period

Students will use the steps required to measure longhorn horns and to convert the information into real numbers using a scale measurement.

Oklahoma Academic Standards

Activity 3: Cattle Drives (Math)

3.N.1.2	Use place value to describe whole numbers between 1,000 and 100,000 in terms of ten thousands, thousands, hundreds, tens and ones, including expanded form.
3.N.2.4	Recognize when to round numbers and apply understanding to round numbers to the nearest ten thousand, thousand, hundred, and ten and use compatible numbers to estimate sums and differences.
5.D.1.1	Find the measures of central tendency (mean, median, or mode) and range of a set of data. Understand that the mean is a "leveling out" or central balance point of the data.

Materials:

Activity 3, Worksheet 1 "Cattle Drives"

Procedures

- 1. Hand out Activity 3, Worksheet 1 "Cattle Drives" chart showing the number of cattle driven to market between 1867 and 1881.
 - —Students will use the information to answer the questions.
 - —Ask students if they can think of reasons for the change in numbers. (For the first five years, the number of longhorn cattle leaving Texas increased steadily. An oversupply brought prices down dramatically, and two years later a crippling depression hit.)
- 2. Students will calculate the mean, median, mode, and range.

Activity 3 Worksheet 1: Cattle Driven to Market 1867-1881



Read the chart below to see how many cattle were driven to market from 1867 to 1881. Then use the data to answer the questions.

1867
1868
1869
1870 300,000
1871 600,000
1872
1873 405,000
1874 166,000
1875 151,618
1876 321,998
1877 201,159
1878 265,646
1879 257,927
1880 394,784
1881 250,000

- 1. In which year were the most cattle shipped to market?
- 2. In which year were the fewest number of cattle shipped to market?
- 3. Use the space above to round each number to the nearest 1,000 and then estimate the total number of cattle that went to market during this 15-year period.

4.	Write each number in expanded form.
186	7
	8
	9
	0
187	1
187	2
187	3
187	4
187	5
187	
187	7
	8
187	9
188	0
188	1

An average is a measure of central tendency called the mean. To find the mean, you add up all of the numbers and divide by the total number of numbers. Other measures of central tendency are the median, the mode, and the range. The median is the number in the middle when all of the numbers are in order. The mode is the number which is repeated the most. The range is the biggest number minus the smallest number.

	minus the smallest number.		
5.	Calculate the mean for all 15 years. Write your answer on the line: (the total of all years ÷ number of years = mean)		
6.	Find the median. (the number in the center when numbers are placed in order)		
7.	Find the mode. (the number that appears most often in a set of numbers)		
8.	Find the range. (the biggest number minus the smallest number)		

Activity 3 Worksheet 1: Cattle Driven to Market 1867-1881



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Name:	Date:
	<u> </u>

Read the chart below to see how many cattle were driven to market from 1867 to 1881. Then use the data to answer the questions.

1867
1868
1869
1870 300,000
1871 600,000
1872
1873 405,000
1874 166,000
1875 151,618
1876
1877 201,159
1878 265,646
1879 257,927
1880 394,784
1881 250,000

1. In which year were the most cattle shipped to market?

<u> 1871</u>

2. In which year were the fewest number of cattle shipped to market?

<u> 1867</u>

3. Use the space above to round each number to the nearest 1,000 and then estimate the total number of cattle that went to market during this 15-year period.

4,114,000

4. Write each number in expanded form.

An average is a measure of central tendency called the mean. To find the mean, you add up all of the numbers and divide by the total number of numbers. Other measures of central tendency are the median, the mode, and the range. The median is the number in the middle when all of the numbers are in order. The mode is the number which is repeated the most. The range is the biggest number minus the smallest number.

5. Calculate the mean for all 15 years. Write your answer on t	m the line	ver on	answer	vour	write '	5 vears	11 1	or all	mean to	tne	aiculate) .
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(the total of all years ÷ number of years = mean)

274,266.66

6. Find the median.

(the number in the center when numbers are placed in order)

265.646

7. Find the mode.

(the number that appears most often in a set of numbers)

350,000

8. Find the range.

(the biggest number minus the smallest number)

215,000