

# At Home on the Range

## Objective

Students will ask and answer questions to demonstrate understanding of the text on bison. Students will interpret data in the text to create graphs.

## Background

The American bison belongs to the same family of mammals as domestic cattle—the Bovidae family. Early explorers often mistook bison for beef cattle. The Spanish explorer Cabeza de Vaca called bison “Indian cattle,” and early French explorers called them “boeuf,” (pronounced buff), the French word for beef. The English took that name and changed it to buffalo, the name most people now have for the bison. In fact, the true buffalo is related to bison and cattle but is an oxlike animal that comes from Europe and Asia. The water buffalo is one example.

Because bison have so much in common with domestic cattle, pioneering ranchers on the Great Plains thought it would be worthwhile to capture and protect small herds from the hide hunters that wiped them out between 1871 and 1873. Since the bison had adapted to the harsh conditions of living on the Great Plains, some cattlemen hoped they could develop heartier breeds of cattle by breeding bison with their cattle.

Bison go off to calve by themselves and need no assistance from humans. The calves are immediately on their feet after birth and easily keep up with their mothers on a steady run. Bison work together in herds to protect each other against predators and the environment. They can weather storms and help their new-born calves survive in blizzards. Bison stand facing the winter winds instead of moving with the wind like cattle do. Their heavy winter coats protect them from the bitter cold. Bison can root through heavy snow to get to the grass below. If necessary, they can eat snow to survive. Some live to be 40-50 years old.

Bison have poor eyesight but a keen sense of smell. They appear slow and awkward but can outrun and outmaneuver most horses. They are incredibly fast, can pivot on their hind feet and their front feet, and can jump over a fence with ease.

Private ownership of bison has quadrupled in the last 20 years. Farmers and ranchers can place bison on range and pasture land that is not suitable for growing crops. Their numbers have grown so large on government reserves that government officials have started to sell the excess animals at public auctions. Many people buy these animals to start their own herds. Bison meat is available for sale in many places across Oklahoma.

Bison are also playing an important part in restoring our prairie ecosystems in places like the Tall Grass Prairie Preserve in Osage County. The large herds fertilize the land with their droppings while their hooves

## Oklahoma Academic Standards

### GRADE 3

Speaking and Listening: R.1,2,3;  
W.1,2. Reading and Writing  
Process: R.1. Critical Reading and  
Writing: R.6,7; W.3. Vocabulary:  
R.1,3,5  
Geography: 1CE,2AC. History:  
1,7,11  
Data: 1,2

### GRADE 4

Speaking and Listening: R.1,2,3;  
W.1,2. Reading and Writing  
Process: R.1. Critical Reading and  
Writing: R.6,7; W.3. Vocabulary:  
R.1,3,5  
Geography: 1b,2d,3,4. History:  
1,3,4  
Data: 1

### GRADE 5

Speaking and Listening: R.1,2,3;  
W.1,2. Reading and Writing  
Process: R.1. Critical Reading and  
Writing: R.6,7; W.3. Vocabulary:  
R.1,3,5  
History: 5.3  
Data: 2

## Vocabulary

**beefalo**—a species cross between bison and domestic or exotic cattle of any breed

**bison**—a hoofed mammal of western north America, having a dark-brown coat, a shaggy mane and short, curved horns

**Bovidae**—of or belonging to the family Bovidae, which includes hoofed, hollow-horned ruminants such as cattle, sheep, goats, and buffaloes

**breed**— (n)group of animals descending from a common ancestry and possessing certain common characteristics which distinguish it from any other group

(v) to cause to reproduce, especially by controlled mating and selection to develop new or improved strains in animals or plants

**buffalo**—any of several oxlike Old World mammals of the family Bovidae having massive, downward-curving horns

**cattalo**—a cross between bison and domestic cattle

**domestic** —(an animal or plant) trained or adapted to live in a human environment and be of use to humans

**ecosystem**—a system of relationships between organisms and their environment

**gourmet**—a person of informed and discriminating taste

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

**prairie**—an extensive area of flat or rolling grassland, especially the plains of North-Central America

**predator**—animal that lives by preying on others

plow it. In turn the prairie's grasses feed them.

Bison meat has a flavor similar to that of beef. It has a similar protein content as well but is lower in fat and cholesterol. That's because bison get all their food from grazing and do not get supplementary feeds like cattle do. A three-ounce serving of bison meat is 21.7 percent protein and contains about 1.9 grams of fat, 93 calories, and 75 milligrams of cholesterol. A three-ounce serving of lean beef is 21 percent protein and contains 4-8 grams of fat, 143-179 calories, and between 57 and 76 milligrams of cholesterol. Bison meat is considered a gourmet item and is usually more expensive than beef. On the shelf it is a darker red than beef and is sometimes mistaken for old beef.

## Procedures

1. Read and discuss background and vocabulary. Hand out the Reading Page included with this lesson.
  - Students will read the information about the bison.
  - Students will use dictionaries to look up unfamiliar words.
  - Students will answer the comprehension questions on the student worksheet included with this lesson.
2. Lead a discussion in which you ask some of the following questions.
  - Would settlement have been possible in Oklahoma and other parts of the Great Plains if the bison had not been nearly wiped out? (Probably not, since there were so many of them and because of their roaming tendencies.)
    - Why would killing the bison help the government control the Plains tribes? (The Plains tribes depended on the bison for food, clothing, shelter, etc. Without the bison the tribes would not be so strong and would have to depend on the government to meet their needs.)
    - Why do you think ranchers and other conservationists thought it was important to save the bison from extinction? (The bison provided valuable food and was able to survive the harsh conditions of the Great Plains.)
    - List some reasons that other kinds of conservation—soil conservation, water conservation, wildlife conservation—would be good for the farmer or rancher.
    - What replaced bison as the means for survival on the Great Plains? (cattle ranching and then agriculture)
    - The Plains tribes built their culture around the bison. Can you think of something in our own culture that has the same importance that the bison did to the Plains Indians? (Lead the discussion toward the importance of agriculture to our culture. What kind of culture could we have without agriculture?)
3. Students will write opinion papers about one of the above topic based on the class discussion and research.
4. Students will locate the North American Great Plains on the map of the US included with this lesson.
  - Students will use map pencils to color in the Great Plains area.
  - Students will locate Oklahoma within the Great Plains area.
  - Students will label all the Great Plains states.

5. Students will create timelines showing the history of the bison in North America.
6. Students will use online resources to find information about current populations of bison on wildlife refuges and private ranches in Oklahoma and the US.
7. Students will use the numbers found in the Reading Page to graph the decline of the bison population from 1492 to 1873 and its rise from 1873 to present.

### Extra Reading

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

Robbins, Ken, *Thunder on the Plains: The Story of the American Buffalo*, Atheneum, 2009.

# At Home on the Range

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Bison once roamed the Great Plains in numbers so great the early explorers could not count them. One explorer said there were so many they made the countryside look like one big buffalo robe. Bison have lived in all parts of North America, but the largest herds lived on the Great Plains—from the Mississippi River to the Rocky Mountains. The strong grasses that grew there provided the best food for them.

Historians estimate there were 60 million bison in North America in 1492. When European settlers first began moving onto the Great Plains in the 1800s, there were still about 30 million. By that time several Native American tribes had built their cultures around the bison. These tribes depended on the bison for food, shelter, tools and fuel.

The bison has been called the most important wild animal in the development of the West. Bison provided food for early explorers and for settlers crossing the Great Plains. Settlers who chose to stay on the Great Plains hunted bison for food until they could get their farms established. Since there were very few trees on the Great Plains, they made fires from bison droppings for warmth and for cooking.

By the 1800s many people in the eastern United States had tasted bison meat. Some liked it even better than beef and were willing to pay good prices for it. Many hunters began to think hunting bison on the Great Plains would be a good way to earn a living. More and more hunters began coming onto the Great Plains to kill bison. Some began taking just the bison's tongue, hump and hide because those were the easiest to get. They would leave the rest of the carcass on the Plains to rot. The Plains tribes who depended on the bison to feed their families began to get worried that these hunters were killing too many bison and wasting too much meat. Many people from back east became upset, too, because the wasted meat could have fed many hungry people all over North America.

Some people wanted the bison wiped out, though, because they thought it would help the government control the Plains tribes.

In the 1870s German tanners found an easy way to make leather from bison hides. After that many companies began paying high prices for the hides. The hunters discovered they could make much more money if they killed many bison at one time, took their hides, and left what remained to rot.

Between 1871 and 1873, 2,000 hide hunters slaughtered thousands of bison. By the end of the 19th Century, there were only 541 bison left on the Great Plains. By this time cattlemen had started moving large herds of longhorn and other cattle onto the Great Plains. Some of the ranchers saw the value of the bison and rounded up some of the younger ones to protect them and save them from extinction. One rancher, Charles Goodnight of Texas, thought bison could be crossed with cattle to produce a breed that would do well on the Great Plains. For awhile he was very successful with his cattalo. Modern breeders have been successful with a similar mix, which they call beefalo.

Because of the efforts of cattlemen and other conservationists, like Charles Goodnight, the bison is no longer an endangered species. Over 500,000 bison now roam on private and public lands in North America.



Oklahoma Ag in the Classroom is a program of the Oklahoma Cooperative Extension Service, the Oklahoma Department of Agriculture, Food and Forestry and the Oklahoma State Department of Education.

Name \_\_\_\_\_

# At Home on the Range

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1. What two geographical formations mark the boundaries of the Great Plains?

The \_\_\_\_\_ and the \_\_\_\_\_ mark the boundaries of the Great Plains.

2. Why were there more bison on the Great Plains than anywhere else?

\_\_\_\_\_  
\_\_\_\_\_

3. Between 1492 and the 1800s the bison population in north America had been cut by \_\_\_\_\_ percent.

4. Why was the bison called “the most important wild animal in the development of the West?”

\_\_\_\_\_  
\_\_\_\_\_

5. White hunters first began killing bison and using all their meat, but later they began taking just the bison’s

\_\_\_\_\_, \_\_\_\_\_ and \_\_\_\_\_.

6. What technological development caused the price of bison hides to rise and led to the massive slaughter of bison between 1871 and 1873? \_\_\_\_\_

\_\_\_\_\_

7. What is the main reason the bison herds were wiped out on the Great Plains? Circle the answer.

- a. The Plains Indians killed too many.
- b. Too many settlers and explorers liked the taste of bison meat.
- c. Hide hunters wanted to make more money.
- d. The government was trying to get rid of the Indians.



8. Which of the following saved the bison from extinction? Circle the answer.

- a. Hide hunters
- b. Explorers
- c. Historians
- d. Ranchers and other conservationists

Name \_\_\_\_\_

# At Home on the Range (answers)

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1. What two geographical formations mark the boundaries of the Great Plains?

The Mississippi River and the Rocky Mountains mark the boundaries of the Great Plains.

2. Why were there more bison on the Great Plains than anywhere else?

The strong grasses growing on the Great Plains was the best food for them.

3. Between 1492 and the 1800s the bison population in north America had been cut by 50 percent.

4. Why was the bison called “the most important wild animal in the development of the West?”

Bison provided food for the settlers and explorers to eat and fuel to help keep them warm.

5. White hunters first began killing bison and using all their meat, but later they began taking just the bison’s hide, hump and tongue.

6. What technological development caused the price of bison hides to rise and led to the massive slaughter of bison between 1871 and 1873? The price of bison hides rose after some German tanners developed a better method to tan bison hides.

7. What is the main reason the bison herds were wiped out on the Great Plains? Circle the answer.

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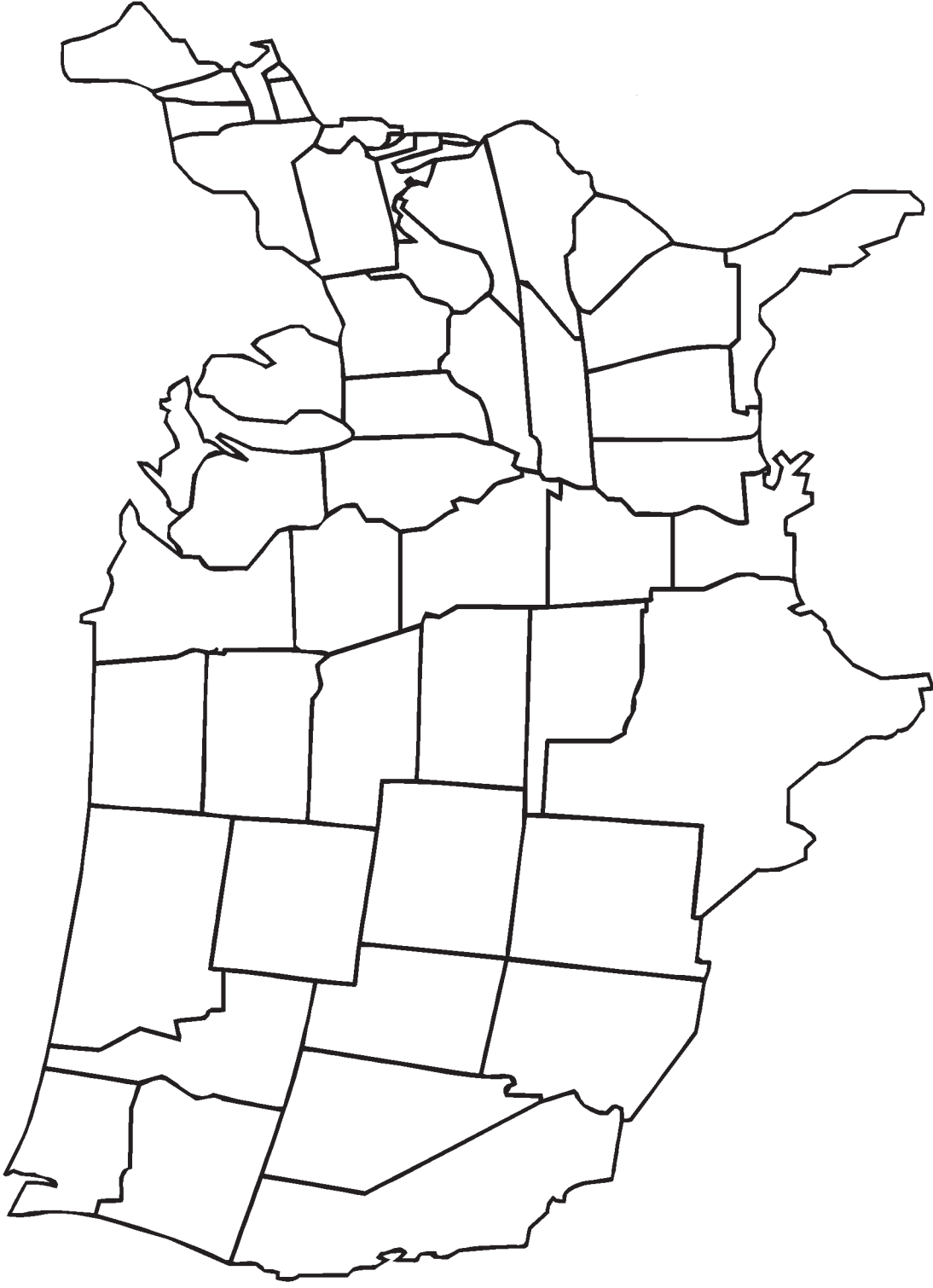
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Name \_\_\_\_\_

# US Map

Find Oklahoma on the map and color it in with a map pencil. Use a different color pencil to color in the remaining Great Plains States. Make a list of the Great Plains states below. Write the abbreviation for each Great Plains state in the correct location on the map.



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