

Lesson Plan: Bison

Summary

In this session, Blade drew the American bison, noting how the photo reference appeared almost entirely black and challenging to shade without creating a blob. He explained that bison became distinct in North America about 150,000 years ago, highlighted their storm-facing behavior, predators, defenses, and herd protection strategies, and recounted how their numbers collapsed from tens of millions to less than a thousand before recovering to hundreds of thousands today. He also reflected on their cultural and spiritual meaning to Indigenous peoples and expressed a hope to one day see them roam free again.

https://www.youtube.com/live/5hVWh0l3_no?si=xd6grzielFUPeIYI

Objective

Students will analyze the ecological, cultural, and historical importance of the bison, evaluate how human actions impacted its population, and consider the significance of conservation and cultural memory.

Standards

- NGSS MS-LS2-1: Analyze and interpret data to provide evidence for the effects of resource availability on organisms and populations.
- CCSS.ELA-LITERACY.RH.6-8.2: Determine the central ideas or information of a primary or secondary source.
- C3 D2.His.14.6-8: Explain multiple causes and effects of events and developments in the past.

Materials

- 9 Fun Facts on Bison
- Worksheet (provided below)
- Optional: whiteboard, projector, images of bison, paper and pencils

Activity

- Read aloud the 9 Fun Facts on Bison.
- Divide students into small groups and assign each group one fact to analyze for ecological, cultural, or historical significance.
- Have each group present their analysis to the class.
- As a class, discuss the rise, fall, and recovery of bison populations and how humans influenced these changes.

Introduction

Begin by asking students what they know about bison. Discuss the concept of resilience and how animals adapt to survive in harsh environments. Connect this to how bison face storms head-on and how their behaviors ensured survival on the plains.

Assessment

Students will complete the worksheet questions, participate in group analysis, and contribute to class discussion. Teachers will assess understanding through written responses and oral contributions.

Rubric

Criteria	Excellent (4)	Good (3)	Fair (2)	Poor (1)
Content Understanding	Demonstrates clear, detailed understanding of all facts	Understands most facts with minor gaps	Partial understanding with several gaps	Minimal understanding shown
Discussion Participation	Actively contributes and supports peers with relevant points	Participates when prompted, generally on topic	Limited participation, occasional relevance	No meaningful participation
Worksheet Completion	All questions answered thoroughly and accurately	Most questions answered, generally accurate	Some questions answered, mixed accuracy	Few or no questions answered
Technology Connections	Makes clear, appropriate connections to classroom or digital tools	Some connections made, basic appropriate use	Minimal connection, needs guidance	No connections made

9 Fun Facts

1. Ancient arrival Bison first arrived in North America around 150,000 years ago, crossing the Bering land bridge from Asia. Their ancestors included *Bison priscus*, painted in European caves, and *Bison latifrons*, a giant with horns stretching six feet across. Over time, these great beasts evolved into the smaller, tougher bison we know today.

<https://www.nps.gov/articles/000/the-bison-beat.htm>

2. Distinctly bisony traits When storms hit, bison do not run, they face into the wind and push forward. This unique behavior, combined with their woolly shoulder hump and massive heads, makes them a living emblem of resilience on the plains.

<https://www.ifaw.org/animals/bisons>

3. Natural predators Full-grown bison are so large and powerful that few predators dare attack. Wolves and grizzlies mostly target calves or sick animals, leaving healthy adults alone. Even predators seem to respect their power.

<https://www.pbs.org/wnet/nature/blog/american-bison-fact-sheet/>

4. Defenses Bison defend themselves with muscle, horns, speed, and solidarity. They can sprint up to 35 miles per hour and use their bulk as battering rams. Herds instinctively circle around injured or young members, protecting them against threats.

https://animaldiversity.org/accounts/Bison_bison/

5. Rise in numbers At their peak, between 30 and 60 million bison roamed across North America. They shaped entire ecosystems, and Indigenous peoples depended on them for food, shelter, tools, and cultural identity.

<https://www.flatcreekinn.com/bison-americas-mammal/>

6. Fall to near extinction By the late 1800s, overhunting, railroads, and deliberate extermination campaigns reduced those millions to fewer than a thousand. The loss of the bison also meant the collapse of Native economies and lifeways tied to them.

<https://www.pbs.org/buffalowar/buffalo.html>

7. Cultural memory For Indigenous nations, the bison's disappearance was more than material, it was spiritual. Stories tell of herds returning underground or disappearing into mountains, waiting to reemerge when balance is restored.

<https://nativeshinee.com/blogs/news/the-sacred-connection-bison-in-native-american-heritage>

8. Conservation efforts Conservationists in the late 19th and early 20th centuries saved the species from extinction by gathering survivors into protected herds. Organizations like the American Bison Society and Yellowstone National Park ensured their survival, though often in fenced or managed populations.

<https://www.fws.gov/species/plains-bison-bison-bison-bison>

9. Current successes Today, about 400,000 bison exist in North America. Most live in private herds, but wild conservation herds remain on public lands and tribal territories. Yellowstone holds the largest free-ranging population, and tribal nations are restoring bison to both landscapes and diets.

<https://www.pbs.org/wnet/nature/blog/amid-catastrophic-wildlife-declines-bison-populations-are-growing-heres-why/>

Worksheet

Name: _____ **Date:** _____

Review

1. Around how many years ago did bison first arrive in North America?
2. What behavior shows how bison face storms differently than most animals?
3. Name two natural predators of bison.

Discussion

4. Why were bison important to Indigenous peoples?
5. How did bison defend themselves as a herd?

Data Analysis

6. At their peak, how many bison roamed North America?
7. By the late 1800s, how many remained, and what caused this decline?

Reflection

8. Why do you think the bison hold spiritual importance for many Indigenous nations?
9. What lessons about conservation can we learn from the near extinction and recovery of the bison?