

Bison Physical Challenge



Engage and Reflect

Watch *Virtual Vitamin Z - Discover More About American Bison*

<https://www.youtube.com/watch?v=kq7VQBf1IF8>



Skills

- Measurement
- Observations
- Data collection



Math Concepts / Standards

- Measurement and Data

NGSS Science and Engineering Practices

- Biological Evolution: Unity and Diversity
- Heredity: Inheritance and Variation of Traits
- Energy



Experience

- 5-10 minutes
- 1 or more people

American bison are large mammals, found only in North America. Despite their large size, bison can jump more than six feet and can run up to fifty-one feet each second. You can measure out set distances and calculate your greatest jump and fastest speed to compare your athletic abilities with the American bison. Collect your information in a data sheet to compare with family and friends.



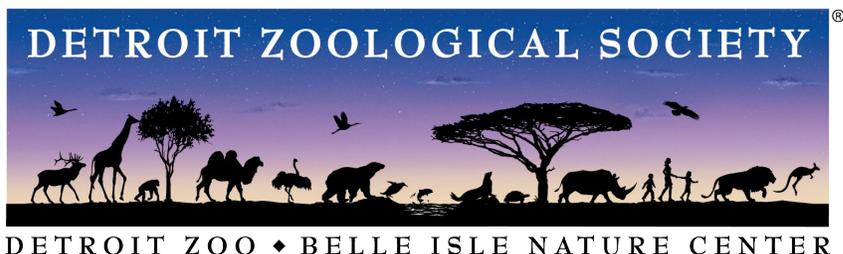
Celebrating and Saving Wildlife

The Detroit Zoological Society(DZS) is committed to conservation and helping endangered species, such as the American bison, who have been gravely impacted by human activity. Building awareness of how our actions impact other living creatures and providing resources to empower people to do the most good and least harm, provides an opportunity for species to recover and thrive once again.



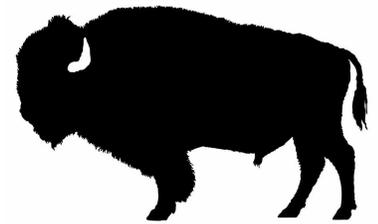
Take Action

American bison have co-evolved with their habitats. When bison are reintroduced into a habitat, they strip away grasses and fertilize lands, giving room for native flowers that help shepard in the return of native insects and birds. You can help by planting native flowers in your yard to help the return of native insects and flowers.



DETROIT ZOO ♦ BELLE ISLE NATURE CENTER

Bison Physical Challenge



Tools

Measuring tape

Timer

Flat, open space, like a sidewalk

Chalk, tape or other item to serve as a marker

1 or more people

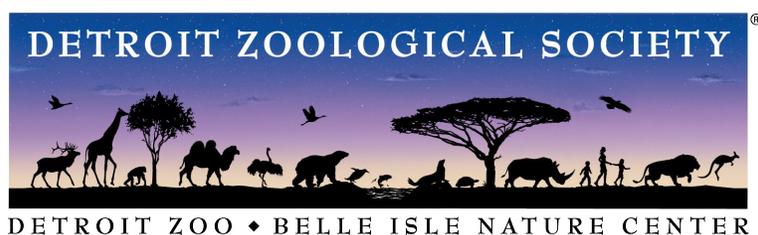
Directions

- On a sidewalk, use measuring tape to measure out 6 feet. Mark both the starting and ending location. Any object can be used as a marker; use cones, rocks, sticks or any other item you have.
- Now, stand on the starting point. Jump as far as you can and compare your jump to a bison's six-foot jump. Repeat as many times as you'd like to see if you can improve your distance. How many of your furthest jumps would you have to complete before you reach the bison's marker?
- Now use measuring tape to measure a distance of 51 feet. Place your marker there and go back to the starting point. This distance is how far a bison can move in a single second.
- Start a timer and run as fast as you can to the bison's marker. Stop the timer and record your time. Repeat as many times as you'd like and see if you can improve the distance.

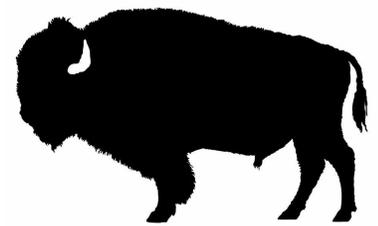
Notes - If you do not have a tape measure, use sidewalk squares as a standard measurement. Each square is usually six-feet long. This means you'll need to count out 8.5 blocks to measure out the length of 51 feet. For increased accuracy, use a ruler to measure your sidewalk squares. Figure out how many blocks you would need to reach 51 feet.

For more of a challenge, calculate your speed. How far did you travel in a single second? How does that compare to the speed of a bison who can move 51 feet each second?

Continue the lesson by finding jump distances and speed information for other animals and continue making comparisons. Can you find an animal that moves at the same speed as you? Can you find an animal that jumps the same distance as you?



Bison Physical Challenge



What is the distance of your best jump?

	Your name: _____	American Bison
Trial 1		6 feet
Trial 2		
Trial 3		

How many seconds does it take you to move a distance of 51 feet?

	Your name: _____	American Bison
Trial 1		1 second
Trial 2		
Trial 3		

A bison's speed is 51 feet each second.

Your speed is 51 feet each ____seconds.