

Hungry Hungry Bison: Feeding the Bison at Pawnee Bill Ranch

Objectives:

Students will learn three major categories of food eaten by bison, how to calculate the measurement of feed requirements for bison, and the responsibilities of Pawnee Bill Ranch as a caretaker for herds in captivity.

Oklahoma Academic Standards:

Grade 3: 3.N.2

Grade 4: 4.GM.2

Background:

Bison are grazers, with the herd rising every morning at dawn to start grazing. Once they are full, they rest. Their day cycles between periods of grazing and rest, eating 1.6 percent of their body mass per day, equaling around twenty-four pounds per day. But what do bison eat?

Pawnee Bill was dedicated to the conservation and preservation of bison when they were endangered, and the Pawnee Bill Ranch is still committed to his goals. The Pawnee Bill Ranch bison are not free to roam the vast prairies as they once did, but live within a fenced 500 acres on the property. The bison graze the grassy area within their pens, and also fed nutritional cakes and hay to supplement their diet.

Vocabulary:

Herbaceous: plants with no persistent woody stems.

Grass: usually herbaceous plants with narrow, elongated leaves

Forb: Any herbaceous plant growing in its native habitat, excluding grass; often considered weeds or wildflowers.

Browse: any plant with a woody stem

Graze: feed on a land covered by grass

Forage: plant material eaten by grazing livestock

Hay: grass that has been mown and dried to use as fodder

Cake: a concentrated ration for cattle and bison processed in the form of blocks or cakes

Procedure:

1. Discussion:
 - a. Discuss with the students the vocabulary and which plants bison eat graze on in the wild. How does that food differ to their nutrition cakes and hay?
 - b. What are the responsibilities of Pawnee Bill Ranch to care for these wild animals?
2. Worksheet
 - a. Have students fill out the Café de Bison math worksheet.

Café de Bison: Calculation Worksheet

Humans need to drink eight cups of water a day.

How many ounces are in eight cups of water? _____ oz.

A bison needs to drink five gallons of water a day.

How many cups are in five gallons of water? _____

How many ounces? _____ oz.

How much more does a bison drink than a human? _____ oz.

You are now in charge of caring for a small herd of five bison.

How much water will five bison need for one day?

Cups: _____

Ounces: _____

Currently, fifty bison live on the Pawnee Bill Ranch.

How much water will fifty bison need for a week?

Cups: _____

Ounces: _____

Bison require about twenty-four pounds of grazed grass a day, with three pounds of nutrition cubes every other day.

How many pounds are needed to feed the Pawnee Bill bison for one week?

Dry grass: _____ lbs.

Nutrition cubes: _____ lbs.