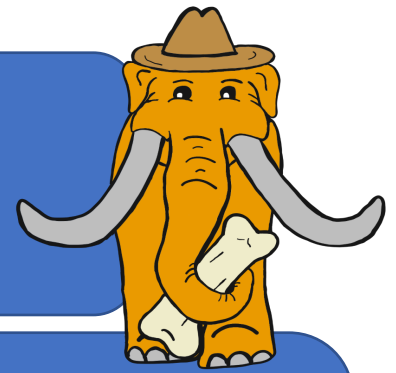


# Science Saturday @ HOME

## Aging Bison - Looking at Teeth



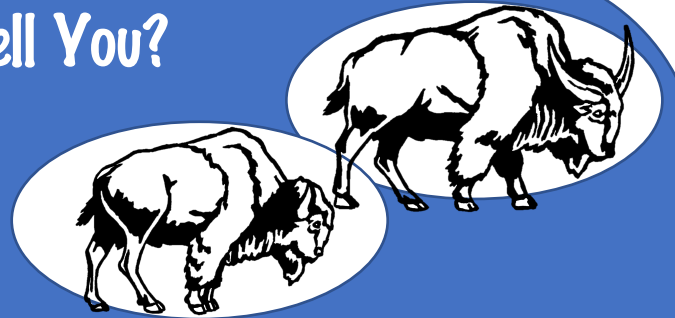
### Gathering Supplies:

No outside supplies need.  
Just read along!

Bison coloring pages can be downloaded and printed out from our website.

### What Can A Bison Tooth Tell You?

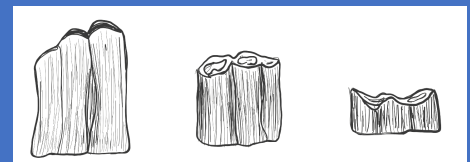
There are two types of bison that lived in the Diamond Valley Lake area during the Ice Ages. Ancient bison (*Bison antiquus*) and long-horned bison (*Bison latifrons*).



The ancient bison is the ancestor of today's bison (*Bison bison*). They grazed in the valleys eating grasses, shrubs and woody plants. Ancient bison became extinct about 10,000 years ago.

The long-horned bison was the largest bison in North America and got its name from the very long horns on either side of their heads. It could weigh up to 4,000 pounds. The long-horned bison roamed the same valleys as the ancient bison and became extinct 22,000 years ago.

Bison have one set of teeth for their whole life. Since they are herbivores, or plant eaters, they will grind the plants that they eat with their flat teeth. This grinding motion also caused their teeth to be worn down. So the older that they are the more their teeth have been worn away. This wear pattern happens at a rate that had been charted. This means that paleontologists can use the height of the tooth or the wear pattern on the chewing, occlusal, surface to tell how old the bison was when they died. This drawing shows the teeth in order from youngest to oldest.

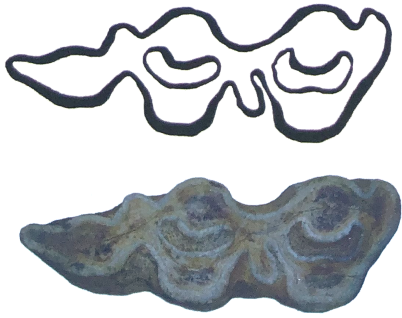


Can you use the information on the following page to tell how old the three bison teeth fossils are?

# Try This! How Old Was Each Bison?

1. Use the information below to compare the wear pattern drawings and photos for the fossil teeth. Can you tell how old each bison was when they died? For this activity the ages are divided into general ranges: young, middle age, or old. The fossil number is shown on the card. Each tooth fossil is from the same tooth position, 3<sup>rd</sup> molar.

WSC-P 495



WSC-P 10054



WSC-P 11909

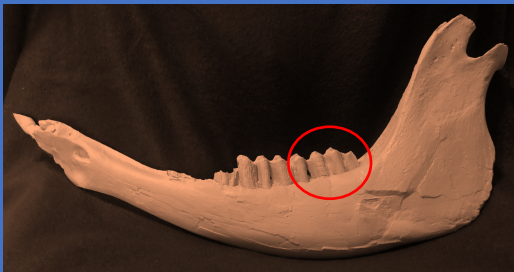
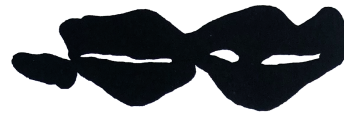


Photo of Bison jaw bone.  
3<sup>rd</sup> molar is circled.



Wear stage 1: Young  
Almost no wear



Wear stage 2: Young  
Moderate wear, stylid is not worn



Wear stage 3: Young  
Moderate wear, stylid is ring-shaped



Wear stage 4: Middle-age  
Moderate wear, stylid in oval-shaped



Wear stage 5: Old  
Heavy wear, stylid is a loop connected to the main enamel ridge



Wear stage 6: Old  
Heavy wear, interior enamel loops worn away.