

GRADES K-2 ACTIVITIES

Welcome to *Extreme Mammals: The Biggest, Smallest, and Most Amazing Mammals of All Time*. Use this sheet to help your class explore mammals – what they look like, their shapes and sizes, and where they live. The activities below and on the Student Worksheet can be adapted to meet your students' interests and abilities.

BEFORE YOUR VISIT

Class Discussion: Introduce your students to the material covered in the **Essential Questions** section of this guide under *What is a mammal?* and *What is extreme?* Ask them to describe mammals that live in the water, on land, and in treetops.

Online Activity: Invite your students to explore the diversity of mammals around the world with this virtual tour of the Museum's renowned dioramas (amnh.org/exhibitions/dioramas). In a group discussion, have them describe similarities between the mammals in the dioramas. Let them know that they will discover more about mammals when they come to the exhibition.

Classroom Activity: Download "What Teeth Tell Us" (amnh.org/education/resources/whatteethellus). After they've completed the activity, ask your students to describe the two different kinds of teeth and what they are used for.

New York State Science Core Curriculum

Major Understanding LE 3.1a
Each animal has different structures that serve different functions in growth, survival, and reproduction.

DURING YOUR VISIT**IN THE EXTREME MAMMALS EXHIBITION**

Use the activities and guiding questions in Sections 1 and 4 of **Teaching in the Exhibition** in this Guide to help students in their exploration of the biggest, smallest, and most amazing mammals. Have them share which mammal in the exhibit they liked the most, and why.

Go to the **Heads** area and ask students to compare the teeth of living and extinct mammals. Use Section 4 of **Teaching in the Exhibition** for strategies to explore this area.

Students can use the reproducible on the reverse side of this sheet to further explore these concepts. Provide chaperones with a copy of the **Map of the Exhibition** to help them find locations in *Extreme Mammals*.

IN THE HALL OF NORTH AMERICAN MAMMALS (First Floor)

Have students take a close look at the **beaver**, **mountain lion**, **grizzly bear**, **brown bear**, and **caribou** dioramas, and choose one animal to sketch or draw on the back of their worksheet. Ask students what they observe about its habitat. From what they can see, what about these animals do they think helps them live in this habitat? What do they think the animal eats, and why?

BACK IN THE CLASSROOM

Activity: Have students create their own "extreme mammal," including features like horns, fur, bony plates, flippers, and prehensile tails. Have them name their animal, explain to the class why they chose these special features, and describe how these features would help their animal survive.

Activity: Take a bite! Have students sample a variety of foods (an apple, a sandwich, a snack bar, or crackers), and ask them to think about which teeth they use for each bite. Ask what kind of diet their teeth are adapted for.

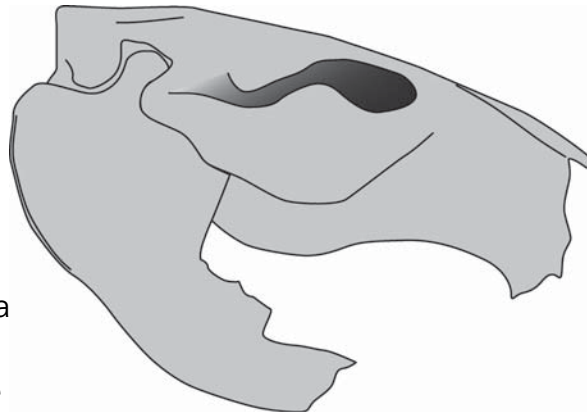
An answer key for the activities and Student Worksheet is available at amnh.org/education/extrememammals.

STUDENT WORKSHEET

GRADES K-2

What are teeth for?

Go to Section 4, HEAD TO TAIL: HEADS. Find the beaver skull in the TEETH area. **Draw its teeth in the skull here.** →



Circle all the ways a beaver can use its teeth:

- grabbing
- slicing
- cutting
- chewing
- whistling

Now go to the HEADGEAR area and find the fossil beaver skull with horns. Compare it with the other beaver. How are they the same? How are they different?

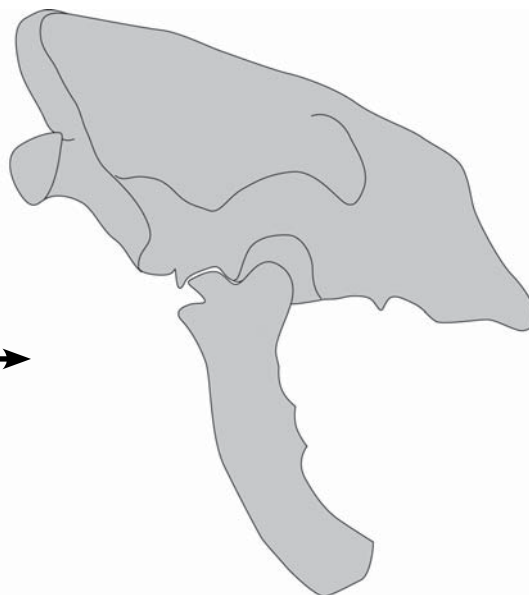
Make a Face

Look in the mirror in the TEETH section to see how your teeth compare with the teeth of other mammals. Which mammal is your favorite? Why? _____

How are your teeth like that animal's teeth? How are they different? Share your answers with your classmates.

Find the saber-toothed cat!

Lion and tiger teeth may be impressive, but not compared to the giant teeth of these extinct cats!



Draw the teeth of the Saber-toothed cat in the skull. →

A saber-toothed cat was a:
(Circle your answer.)

plant-eater

meat-eater

Why do you think so?



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ANSWER KEY

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BEFORE YOUR VISIT

Class Discussion: Introduce your students to the material covered in the **Essential Questions** section of this guide under *What is a mammal?* *All mammals produce milk, are warm-blooded, and have four limbs.* and *What is extreme? Extreme mammals have features that are unique or special compared to other mammals.* Ask them to describe mammals that live in the water, on land, and in treetops.

These include:

Water – Seal, dolphin, and otter

Land – giraffe, deer, and tiger

Treetops – the woolly monkey and the sloth

Online Activity: Invite your students to explore the diversity of mammals around the world with this virtual tour of the Museum's renowned dioramas (amnh.org/exhibitions/dioramas). In a group discussion, have them describe similarities between the mammals in the dioramas. Let them know that they will discover more about mammals when they come to the exhibition. *While looking at the bison/pronghorn diorama discuss the horns, hooves, and body covering (hair) of the bison as compared to the pronghorn.*

Classroom Activity: Download "What Teeth Tell Us" (amnh.org/education/resources/whatteethellus). After they've completed the activity, ask your students to describe the two different kinds of teeth and what they are used for. *Sharp teeth are used by carnivores, or meat-eating animals, for cutting meat into chunks that are then swallowed (chewing not necessary). Flat teeth are used by herbivores, or plant-eating animals, to grind plant material before swallowing; this helps with the digestion of plant material.*

New York State Science Core Curriculum

Major Understanding LE 3.1a
Each animal has different structures that serve different functions in growth, survival, and reproduction.

DURING YOUR VISIT

IN THE EXTREME MAMMALS EXHIBITION

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An answer key for the activities and Student Worksheet is available at amnh.org/education/extrememammals.

GRADES K-2 **ACTIVITIES** cont'd**ANSWER KEY****IN THE HALL OF NORTH AMERICAN MAMMALS (First Floor)**

Have students take a close look at the **beaver**, **mountain lion**, **grizzly bear**, **brown bear**, and **caribou** dioramas, and choose one animal to sketch or draw on the back of their worksheet. Ask students what they observe about its habitat. From what they can see, what about these animals do they think helps them live in this habitat? What do they think the animal eats, and why?

Beaver: Sharp front teeth allow beaver to eat the bark of trees and to cut down larger trees to build their dens.

Mountain lion: Lean bodies, powerful legs, and sharp teeth allow mountain lions to hunt and eat other animals. The light color of the mountain lion's fur allows it to blend well with the rocks in their environment.

Grizzly bear: The sharp claws of the grizzly bear allow it to tear apart fallen trees and dig in the soil to look for food.

Brown bear: The sharp claws of the brown bear allow it to dig in the soil while looking for food. Its large nose and ears help it to smell and hear threats and find food from far distances.

Caribou: The caribou have a fur coat to help protect it in this very cold environment.

BACK IN THE CLASSROOM

Activity: Have students create their own "extreme mammal," including features like horns, fur, bony plates, flippers, and prehensile tails. Have them name their animal, explain to the class why they chose these special features, and describe how these features would help their animal survive.

[Students can use crayons, markers, paper, cardboard, clay, model magic and other materials to sketch a drawing or create a model.]

Activity: Take a bite! Have students sample a variety of foods (an apple, a sandwich, a snack bar, or crackers), and ask them to think about which teeth they use for each bite. Ask what kind of diet their teeth are adapted for.

Human teeth are adapted to eat meat or plants (omnivore). The front teeth are used for nipping chunks of food into "bite-sized" pieces and the flat back teeth (molars) are used for grinding food before swallowing.

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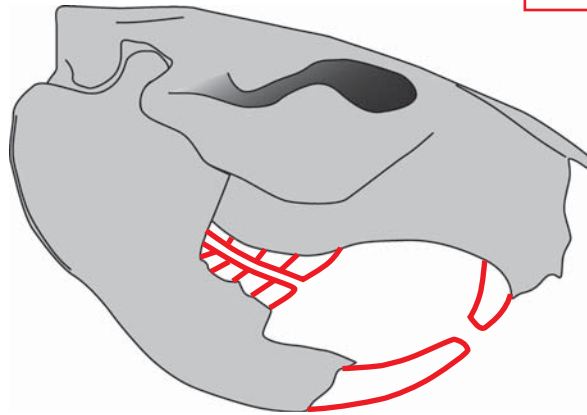
STUDENT WORKSHEET

GRADES K-2

ANSWER KEY

What are teeth for?

Go to Section 4, HEAD TO TAIL: HEADS. Find the beaver skull in the TEETH area. **Draw its teeth in the skull here.** →



Now go to the HEADGEAR area and find the fossil beaver skull with horns. Compare it with the other beaver. How are they the same? *The teeth of the extinct beaver and the modern beaver have the same basic shape.* How are they different? *The extinct beaver has horns and the modern beaver doesn't. The modern beaver skull is much larger.*

Circle all the ways a beaver can use its teeth:

- grabbing
- slicing
- cutting
- chewing
- whistling

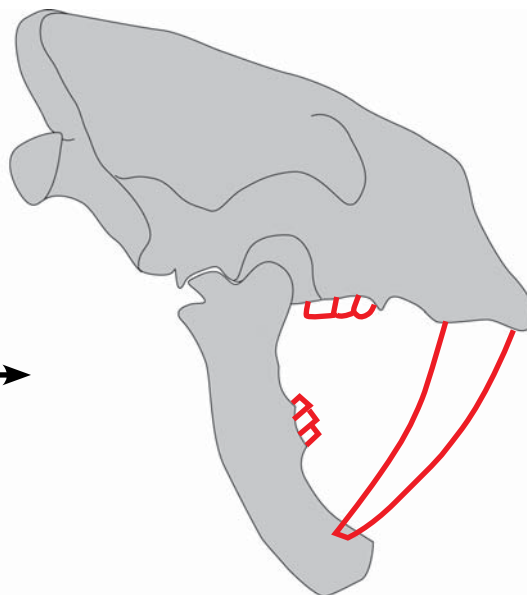
Make a Face

Look in the mirror in the TEETH section to see how your teeth compare with the teeth of other mammals. Which mammal is your favorite? Why?

How are your teeth like that animal's teeth? *Answers will vary.* How are they different? *Answers will vary.* Share your answers with your classmates.

Find the saber-toothed cat!

Lion and tiger teeth may be impressive, but not compared to the giant teeth of these extinct cats!



Draw the teeth of the Saber-toothed cat in the skull. →

A saber-toothed cat was a:
(Circle your answer.)

plant-eater

meat-eater

Why do you think so?
The teeth of the saber-toothed cat are sharp and the jaws come together like scissors to cut meat. The saber-toothed cat does not have any grinding teeth (molars).