CAN YOU FIND ME?

6

Pentaceratops (Pen-tuh-SARA-tops) gets its name from the five horns on its head: two above its eyes, two behind its cheeks and one on its nose!

What do you think *Pentaceratops* used its horns for? (circle one or more)

For Protection To make it look bigger To scare other dinosaurs

***Pentaceratops* has the largest skull of any land animal.**

This *Pentaceratops* holds a world record for being the most complete fossil skeleton ever found!

7

Find each ancient animal in the first row of pictures below. Then, draw a line to the picture of the animal alive today that looks most like it.

Mammoth

Diatryma

Smildon

Tiger

Elephant

Ostrich

Scientists compare the features of ancient animals to modern animals to learn more about how they may have looked and behaved.

Sam Noble Museum
THE UNIVERSITY OF OKLAHOMA
2401 Chautauqua Ave., Norman, OK 73072-7029
(405) 325-4712 **samnoblemuseum.ou.edu**

HALL OF ANCIENT LIFE

SAM NOBLE MUSEUM
TEACHER GUIDE
GRADES 3–5

Welcome to the Sam Noble Museum!

These gallery activities are designed to be facilitated by an adult and completed by the student or group of students.

Gallery Guides are available for each of the museum's three permanent galleries.

THE HALL OF ANCIENT LIFE

The Hall of Ancient Life takes you and your students on a tour of more than 500 million years of Oklahoma's history—4.5 billion years on Earth—from the formation of the planet through the last Ice Age.

The gallery starts with information about geology and Earth's composition, then takes visitors on a trip forward through time. Each section of the gallery represents a different time period with different lifeforms to explore.

QUESTIONS FOR STUDENTS

(Complete as you tour the gallery or after you are finished!)

1. **As you move through the gallery, how do plants and animals look different within the various time periods?**
2. **How does Oklahoma's environment change?**
3. **Can you see any plants or animals that look like ones alive today?**

SAM NOBLE MUSEUM

INSTRUCTIONS

GALLERY GUIDES

1. Begin at the Hall of Ancient Life, located on the first floor. The entrance holds cases of plants and animals with a display of the Earth in the middle.
2. Explore the gallery to find the answers to the questions below.
3. Start your journey at the entrance and end in the room with the smilodon and mammoth.

CAN YOU FIND ME?

1

Find the rock layers with fossils in them across from the ocean display.

Draw one of the fossils you see.

Did you know that the layers on the bottom are older than the ones near the top? Scientists can study rock layers to find out which fossils are older or younger than others. This is called stratigraphy.

2

This animal is *Cotylorhynchus* (Koh-TIE-loh-REEN-kus).

Cotylorynchus was a plant-eater that lived before dinosaurs.

Where in Oklahoma was *Cotylorhynchus* found?

Norman, OK

***Cotylorhyncus* is an important specimen because it has some early features of both mammals and reptiles. *Cotylorhynchus* was a plant-eater. Its large size suggests that it did not have many natural predators.**

CAN YOU FIND ME?

3

Look at the teeth of *Saurophaganax* (sawr-oh-PHAY-ga-nax). Are they sharp or flat?

Sharp

What do you think *Saurophaganax* ate? (Circle one)

Plants (herbivore) Meat (carnivore)

***Saurophaganx* is often confused with *Tyrannosaurus rex*. One way to tell the difference is to look at the claws. T. rex has two claws, whereas *Saurophaganax* has three. *Saurophaganax* is Oklahoma's state fossil!**

4

Look beneath the tail of the long-neck dinosaur and find the display on the wall that shows how the *Apatosaurus* (ah-PAT-uh-SAWR-us) ate its food. This long-neck dinosaur did not have teeth for chewing, so it used its teeth to grab leaves off trees and swallowed them whole.

What did *Apatosaurus* use to grind up the leaves in its stomach? (Circle one or more)

Stones Fur Feathers

***Apatosaurus* had peg-like teeth that acted like a rake to pull leaves off trees. These teeth were not efficient for chewing. *Apatosaurus* would swallow stones called gastroliths to grind up the plants in its stomach. Ginko Biloba was one of *Apatosaurus's* favorite plants!**

5

Find the ocean display with the swimming reptiles, turtle and fish. Do you see the giant fossil fish? It is called *Xinphactinus* (zin-FACT-in-us). Xinfactinus lived in the ocean during the time of the dinosaurs!

What does *Xinphactinus* have on its body to help it live in water?

Fins, gills, tail, etc.

***Xiphactinus* was a large predatory fish that grew up to 13 feet! It could swallow fish as large as 6 feet long whole!**