DINOSAURS

The Fort Worth Museum of Science and History paleontology collection consists of several notable holotypes all of which were discovered in Texas and date back to the Early Cretaceous Period. Among these are the State Dinosaur of Texas, the *Paluxysaurus jonesi*, and the *Tenontosaurus dossi*. There are no known Jurassic dinosaurs from Texas, but Jurrasic dinosaurs did live north and west of the Panhandle. These include the *Allosaurus* and *Camptosaurus*.

TENONTOSAURUS DOSSI

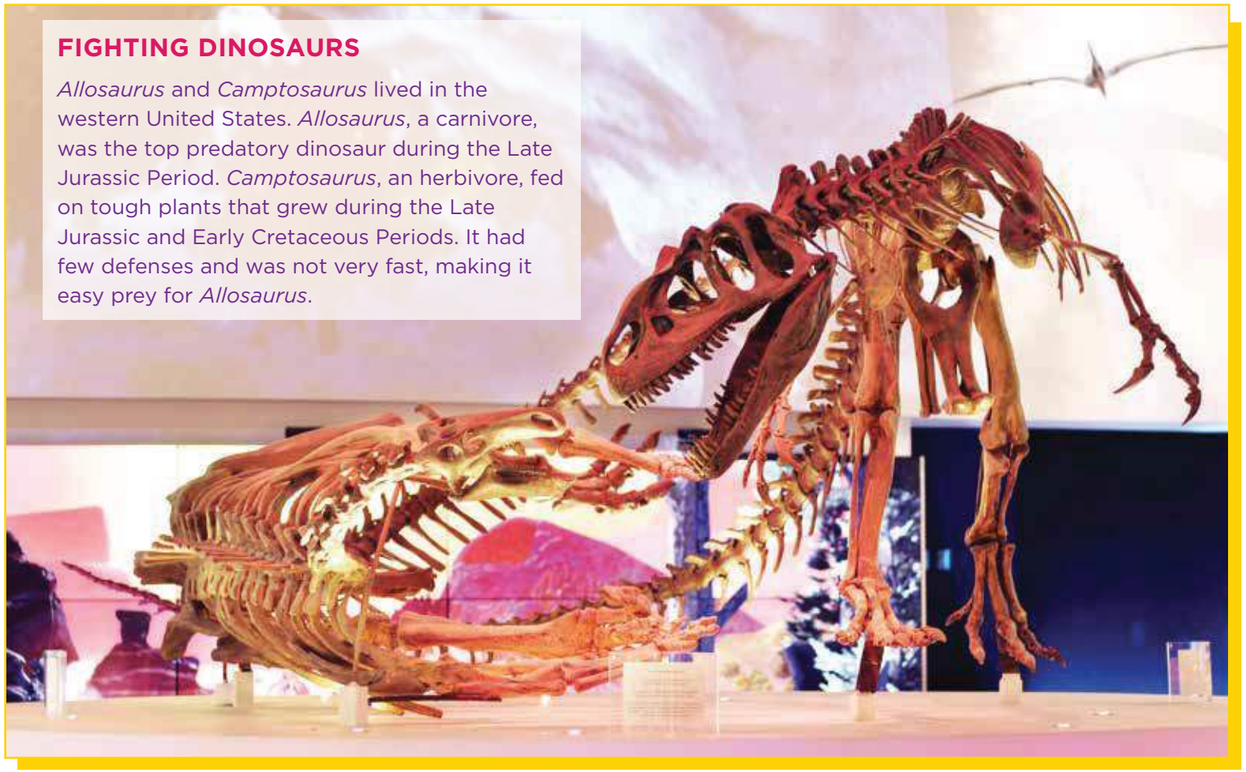
The discovery of a lifetime, this new species of dinosaur was uncovered in 1988 by a boy and his father on a walk in Parker County, near Weatherford. The ornithopod, a plant-eating dinosaur walked tip toed on its hind feet and lived 112 million years ago. The excavation of the *Tenontosaurus dossi* led to a chain of site excavations which eventually unearthed the *Paluxysaurus jonesi* 40 miles away.

PALUXYSAURUS JONESI

Paluxysaurus jonesi roamed the north and central parts of Texas some 112 million years ago during the Cretaceous Period. Paleontologists believe it was common to North Texas based on fossils from Hood County and dinosaur footprints near Glen Rose, Texas. DinoLabs features a pelvis of this large herbivore which weighed around 20 tons. Be sure to visit the State Dinosaur of Texas in the Museum's Atrium to study its entire skeleton more closely!

TYRANNOSAURUS REX

Tyrannosaurus Rex, a fearsome carnivore, lived in forested river valleys in North America during the Late Cretaceous Period. It became extinct 65 million years ago in the Cretaceous-Tertiary mass extinction.



FIGHTING DINOSAURS

Allosaurus and *Camptosaurus* lived in the western United States. *Allosaurus*, a carnivore, was the top predatory dinosaur during the Late Jurassic Period. *Camptosaurus*, an herbivore, fed on tough plants that grew during the Late Jurassic and Early Cretaceous Periods. It had few defenses and was not very fast, making it easy prey for *Allosaurus*.

MINERALS

Minerals are naturally occurring substances formed by geological processes. They are usually solid and feature specific physical properties and chemical compositions. Physical properties include a crystal structure, hardness, lustre, color, streak, fracture, cleavage and density. Minerals can be made up of just one chemical element but more often it is a mixture of multiple elements.

TECHNOLOGY

As much as DinoLabs allows you to dig into the past, this is also an interactive digital world where creativity is unleashed! Movement and technology create an immersive space where anything is possible! It is the seamless integration of fossils, dinosaurs and artifacts with cutting-edge technology.

DINOLAND

This is where dinosaurs come to life! Let your imagination run wild as you create a dino all your own... then scan it and watch it come to life! Personalized dinosaurs will populate the immense 19-foot curved screen, creating a landscape as unique as our guests! DinoLand is an opportunity to develop spatial intelligence, logical thinking and the power of expression.

DINOSTOMP

DinoStomp pulls you into the action! Walk and jump alongside the dinosaurs! Your movement is tracked along a 20-foot video wall, awakening dinosaurs every step of the way. Raptors rise out of the prehistoric grass, while Triceratops runs up to say hello. You might even see the occasional Tyrannosaurus Rex! The large video wall creates a large-scale immersive experience, complete with 10K resolution and sound effects that pull visitors into a prehistoric world!

DINOGLOW™

This Jurassic era Stegosaurus is the first ever interactive 3D mapping dinosaur, designed for collaborative engagement. Have you ever wondered what dinosaurs looked like? Did they have scaled skin in muted colors for just the right kind of camouflage? Did they have feathers? Were they brightly colored and vivid? DinoGlow™ is a one-of-a-kind experience that lets you explore the possibilities!

TEKS:

K: 2A,D,E, 3B,C, 4A,B, 5A, 9A
1st: 2A,E, 3C, 4A, 9A
2nd: 2A,E,F, 3C; 4A,B, 9A
3rd: 2A, 3A,C, 4A, 10A
4th: 2E, 3A,C,D
5th: 3A,C, 4A, 7D
6th: 3A,B,C,D
7th: 3B,C

DINOGLOW™ FOR EDUCATORS

What is your claim?

The color of the dinosaur was _____ ?

The pattern on the dinosaur was _____?

Find your evidence:

Explain your reasoning:

DINOLABS

From Bone to Stone

Dinosaurs captivate the imagination like little else. Artifacts, fossils and DNA are the elements scientists use to reconstruct what dinosaurs and the earth were like 200 million years ago. Inside DinoLabs you can explore that world again in ways you never imagined.

From bone to stone, ancient fossils reveal how dinosaurs roamed and fought, how they lived and died. Fossils are the preserved remains of plants or animals more than 10,000 years old.

FOSSILS

There are two main types of fossils, **body fossils** and **trace fossils**. Body fossils are the preserved remains of a plant or animal's body. Trace fossils are what remains of the activity of an animal; trackways, footprints, fossilized egg shells and nests.

Body fossils go through a process called *permineralization* to become stone. First, the body is buried. Second, ground water fills up all empty spaces – including cells. Third, the water slowly dissolves the organic material leaving minerals behind. After this process is complete, what was once bone is now rock in the shape of a bone!

CASTS AND MOLD FOSSILS

If an animal falls into mud or sand when it dies and is covered by another layer of mud or sand, over time the body will disintegrate. When this happens, the soil will harder into rock preserving an impression of the body. This space is called a **mold fossil**. Over time, it may fill with minerals and form what is called a **cast fossil**, becoming a model or a replica of the organism.

IMPRINTS

Imprints are the external molds of very thin organisms, including leaves and trilobites. They are often found in rocks such as sandstone, shale and volcanic ash.

Please remember fossils are very delicate. Most fossils in this exhibit should not be touched. Look for the hand symbol for fossils you may touch.

TRACE FOSSILS OR ICHNOFOSSILS

Trace fossils, also called **Ichnofossils**, are structures preserved in sedimentary rocks that record biological activity. These fossils are important because they represent both anatomy and behavior. Trace fossils include footprints, tracks and trail marks, burrows, borings, feeding marks and coprolites (fossilized droppings).ii