

# OKLAHOMA ROCKS! Fossils Come Alive LESSON #1



Painting of *Acrocanthosaurus atokensis* by artist Karen Carr.

The age of the dinosaurs (the Mesozoic Era) lasted about 185 million years. During the Early Cretaceous Epoch, between 140 million and 100 million years ago, an enormous meat-eating dinosaur called “*Acrocanthosaurus atokensis*” roamed coastal areas in what is now Atoka and McCurtain counties, Oklahoma. A resident of the southeastern Oklahoma area between 110 million and 100 million years ago, this meat-eating dinosaur was first

discovered from two specimens found in 1940 in Oklahoma’s Atoka County. Standing about 18 feet tall and measuring as much as 43 feet in length from head to tail, it was one of the largest carnivores of the time. *Acrocanthosaurus* must have been a truly terrifying sight to the dinosaurs it preyed upon. It probably ate herbivores such as *Tenontosaurus*, using its powerful jaws to capture and dismember them. Like *Tyrannosaurus*, which appeared in the Late Cretaceous, *Acrocanthosaurus* belonged to the Carnosauria, a group of meat-eating dinosaurs with large bodies and extremely large heads. Unlike the smaller, more agile raptors, which used their well-developed forelimbs and claws, carnosaurs relied on their tremendous jaws to capture and tear apart their prey. The name *Acrocanthosaurus*, means “high-spined lizard,” a ridge along the dinosaur’s backbone is formed by bony spines extending upward from the vertebrae, their function is uncertain.



Cast of *Acrocanthosaurus* fossil collected by Cephis Hall and Sid Love between 1984-1988 near Tonika Landing, McCurtain County, Oklahoma.

Other specimens have been found in southeast Oklahoma, Texas, Utah, and perhaps Maryland. It is the largest predator known from its time, and was designated the State Dinosaur of Oklahoma in 2006. (Text from Oklahoma Dinosaur Days, OGS).

## Dinosaur Bread

This experiment comes from the Oklahoma Oil and Natural Gas Kids page.

### Materials needed:

- slices of three different types of bread (white, whole wheat, rye, etc.)
- gummy animals: worms or fish
- paper towels
- several heavy books

On a paper towel, stack the three different types of bread like pancakes. Insert the gummy animals into the center of the bread. Cover with another paper towel. Stack the heavy books on top of the bread. Wait for 24 hours. Don’t look!

Ask students to predict what the bread might look like,

Uncover: What has happened?

Ask the students what happened to their “fossil.” Can they pull the layers apart?