Meet the Dinosaurs

Grades 1 – 3

Educational Program Guide

PASS

Grade 1 Science Process 1.2, 3.1 | Life Science 2.1, 2.2, 2.3

Grade 2 Science Process 1.2, 3.1, 4.1 | Life Science 2.2

Grade 3 Science Process 1.2, 3.1, 4.1 | Life Science 2.2

OAS

3-LS4-1 | Science Practices 1, 2, 3, 4, 6, 7, 8 |
Core Ideas LS1, LS4 | Crosscutting Concepts, Patterns, Structure and Function

Program Overview

This program is an introduction to some of the Mesozoic dinosaurs of Oklahoma. Students will learn what a fossil is and how it is different from modern animals. Students will then use characteristics of modern animals to help identify some features (diet, behavior) of fossil animals. Students will engage in a fun activity of Cretaceous role-playing that teaches them about locomotion and relationships by doing a "race".

Objectives

After participating in this program, students will be able to:

- Identify four different dinosaurs from Oklahoma – Tenontosaurus, Deinonychus, Saurophaganax, and Apatosaurus;
- Identify modern animals, and relate our knowledge about them to fossil animals (sharp teeth = meat eater in both fossil and modern);
- Realize that our understanding of dinosaurs is based on fossil evidence.

Background

Oklahoma's rich paleontological past includes some extremely large dinosaurs such as Apatosaurus and duck-billed dinosaurs like Tenontosaurus. Scientists have found evidence that large predators like Saurophaganax and pack-hunters like Deinonychus hunted and ate Apatosaurus and Tenontosaurus, respectively. Paleontologists use modern animals, among other things, as comparison of structure, function, and behavior of fossil animals to prove this evidence.

At the Museum

Hall of Ancient Life

Exhibits in the Triassic, Jurassic and Cretaceous sections of the Ancient Life Gallery relate directly to the Meet the Dinosaurs program. Students can compare "tooth and claw," plus locomotion and stances of the carnivorous and herbivorous dinosaurs we have on display. Observe difference in the stances of:

- Alligator
- Eoraptor
- Apatosaurus vs. Saurophaganax
- Deinonychus vs. Tenontosaurus

Vocabulary

Binocular Vision	Forward facing eyes that enable animals to focus on objects in front of them (carnivores). Similar to modern day hawks and eagles.
Carnivore	Meat eater; an animal that eats other animals.
Dinosaur	Meaning "terrible lizard". Coined in 1841 by British scientist Sir Richard Owen, describing terrestrial animals that first appeared in the middle Triassic (230 mya) to the end of the Cretaceous (65 mya).
Fossil	The bones, impressions, or traces of plants and animals preserved in rocks.
Gastrolith	Stones that some herbivores swallowed to help aid the breaking down of plant materials for food. Similar to materials in modern day chicken gizzards.
Herbivore	A plant eater; an animal that eats only plant materials.
Locomotion	Self-powered movement, where an animal moves itself from place to place.
Monocular Vision	Eyes are placed on the side of the animal's head so that it can see two directions at the same time (herbivores). Similar to modern day squirrels.