

Looking Inside Dinosaurs: Paleohistology

Target Grade Range: 4-8

Overview

What can we learn about dinosaurs by looking inside of their bones? Join Museum of the Rockies Paleohistology Lab Manager Ellen-Therese Lamm to explore her unique role in science and discover how researchers use microscopic information to piece together details about extinct animals.

Student Objectives

Students will be able to:

1. Explain the basic internal structure of a bone.
2. Describe the process of paleohistology.
3. Construct a scientific explanation of what we can describe about extinct animals based on the internal structure of fossilized bones.

Standards Alignment

Montana Science Standards

Grade	Subject Area	Content Standard <i>Each student will:</i>
4 th	Life Science	Construct an argument that plants, and animals have internal and external structures that function to support survival, growth, behavior and reproduction
6 th -8 th	Life Science	Apply scientific ideas to construct an explanation for the anatomical similarities and differences among modern organisms and between modern organisms and fossil organisms to infer evolutionary relationships
6 th -8 th	Life Science	Analyze and interpret data for patterns in the fossil record that document the existence, diversity, extinction, and change of life forms throughout the history of life on Earth under the assumption that natural laws operate today as in the past

Next Generation Science Standards

Discipline and Core Idea	<i>Students who demonstrate understanding can:</i>
4-LS-1. Structure, Function, and Information Processing	Construct an argument that plants, and animals have internal and external structures that function to support survival, growth, behavior, and reproduction.
MS-LS4-1. Natural Selection and Adaptations	Analyze and interpret data for patterns in the fossil record that document the existence, diversity, extinction, and change of life forms throughout the history of life on Earth under the assumption that natural laws operate today as in the past,

MS-LS4-2. Natural Selection and Adaptations

Apply scientific ideas to construct an explanation for the anatomical similarities and differences among modern organisms and between modern and fossil organisms to infer evolutionary relationships.