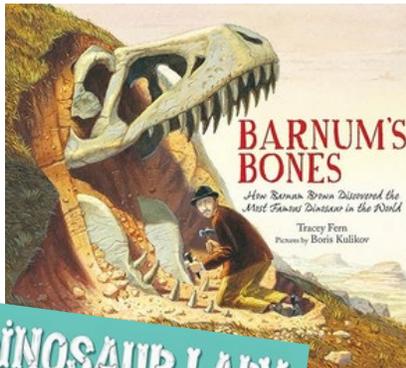


Diggin' History: Dinosaurs

Instructors: Don't forget to make an Achievry account for each student! [Make your account for the Achievry in English](#) or [Make your Account for the Achievry in Spanish](#).

Objective: Students will learn about potential and kinetic energy and counterbalances, weight, and mass. They'll practice map skills, study fossils, and explore the history of paleontology.

Grade Span: 3-8, with tips and resources for modifying for other grade levels included.



Subjects: Science, Social Studies, & ELA

Lesson Intro: Watch This! Watch a read-aloud of [Barnum's Bones](#). Barnum Brown's parents named him after the circus icon P.T. Barnum, hoping that he would do something extraordinary—and he did! Known as the greatest dinosaur collector of all time, Barnum Brown helped the American Museum of Natural History establish its world-class fossil collection.

Then compare his experiences with the read-aloud of [Dinosaur Lady: The Daring Discoveries of Mary Anning, the First Paleontologist](#). Mary

Anning loved scouring the beach near her home in England for shells and fossils. She fearlessly climbed over crumbling cliffs and rocky peaks, searching for new specimens. One day, something caught Mary's eye. Bones. Dinosaur Bones.

Mary's discoveries rocked the world of science and helped create a brand-new field of study: paleontology. However, many people believed that women couldn't be scientists, so they didn't give Mary the credit she deserved. Mary kept looking and learning more, making discoveries that reshaped scientific beliefs about the natural world.

Lesson: Begin with activities from the [Life Is Your Adventure: Paleontology](#) lesson plan. A mysterious package

from Dr. P.H. Toric on Fossil Island has arrived that will send your students off on a grand adventure. Students practice their cartography and journaling skills, find a fossilized dinosaur embryo, make a special storage box to keep it safe as they travel, uncover the secrets of rocks, and discover a 112-mile-wide clue in the Curious Case of the Disappearing Dinosaur as they follow in the footsteps of other paleontologists.



Once they arrive on Fossil Island, there's so much more to do!

Watch This: [Discovering Dinosaurs: Paleontology](#). Did you know paleontologists wrap fossils in toilet paper to protect them? Learn about the study of dinosaurs and how paleontologists search for and find fossils. Follow along as a fossil is found, dug up, and transported to a museum to be studied. Follow along with a fossil being reassembled as you watch [Dinosaur Fossils: Pieces of a Puzzle](#).

Activities: Explore the Achievery Lesson [Make a Mechanical Stegosaurus Tail](#). Students learn about



potential and kinetic energy as they build a model of a stegosaurus tail that can break through paper.

Expand with the Achievery Lesson [Balance a Dinosaur](#). Using the materials they can gather, and their design, students build a dinosaur that can stay balanced on two legs using counterbalances.

Dig Deeper: Build on this lesson with additional resources, such as:

Have students get to know [one of the most infamous scientific rivalries in history](#), known as the Bone

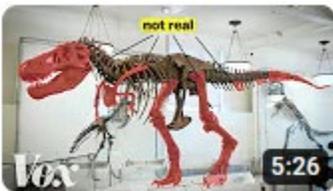


Wars, where two scientists competed to find dinosaur fossils. -- After the California Gold Rush of 1848, settlers streamed west to strike it rich. Besides precious metals, they unearthed another treasure: dinosaur bones. Two wealthy scientists in particular — Othniel Charles Marsh and Edward Drinker Cope — competed to uncover these prehistoric monsters.

[How do we know what color dinosaurs were?](#) The micro-raptor was a four-winged carnivorous dinosaur with iridescent black feathers. But if our information about this dinosaur comes from fossils, how can we be certain about its color? Len Bloch shows how making sense of the evidence requires careful examination of the fossil and a good understanding of the physics of light and color.



[How Scientists Solved the Dinosaur Puzzle](#): When paleontologists uncover a dinosaur, they usually only



find part of the animal, but when we walk through a museum, we see exhibits that paint a full picture—so how do they fill in all those blank spaces? In the early 1900s artists used to hand carve the pieces, but we've come a long way in the past century—both technologically and scientifically. And there's

[Paleontologist Answers Dinosaur Questions from Twitter](#).

Scratch That!

Have students follow the [T-Rex and Pterodactyls: Scratch Easy Beginner Tutorial](#) to build their own game on Scratch.

Play (and check out the code of) [other dinosaur games](#) on Scratch.

