

## Lesson 2: Types of Fossils

### Objectives:

1. Students will learn that fossils are traces or preserved parts of organisms that lived in the past.
2. Students will differentiate between a mold, a cast and a trace fossil.

### Materials:

- Document: Types of Fossils Chart
- Fossil PowerPoint slide or printed picture

### Procedure:

1. Show the students the **Fossil PowerPoint** slide or printed picture. Ask the students to identify what they *see*. *Most students will probably identify the slide/picture as a rock with fossils.* Tell the students, "They are fossils embedded in a sedimentary rock."
2. Ask the students, "What are fossils?" and "How do fossils tell us about past environments?"

Explain that fossils are the remains or traces of plants and animals that lived millions of years ago. In order for dinosaur fossils to form, a dinosaur had to have been buried by sediment soon after dying. Over time, layers of sediment were piled on top of the dinosaur. The sediment slowly seeps into the bones turning them into rock. As more layers of sediment are piled onto the fossils, the fossils are then buried deep in the Earth's crust. Over time, the land is weathered and erosion naturally occurs; the fossils appear closer to the top of the land, becoming unearthed and people can find them. When paleontologists make careful observations of the rock layers where the fossils are found, they can make inferences about the environment that existed during the time period. If scientists find fossils of fish in the desert, they can infer that the desert may have once been an ocean.

3. Tell students that they will be learning about three types of fossils: mold, cast and trace fossils.
4. Show students the Fossil PowerPoint slide or printed picture again and after explaining the types of fossils, ask them if they think the fossil is a mold, a cast, or a trace fossil.

*Explain that a mold is a fossilized hollow impression of a plant or animal.*

*A cast fossil forms when a mold is filled in with sediment.*

*Trace fossils are fossilized nests, eggs, tracks, coprolites (dinosaur poop), etc. Trace fossils show evidence of dinosaur activity in the environment.*


*ANSWER: The fossil on the slide/picture is a cast fossil.*



- Distribute a **Document: Types of Fossils Chart** to each student.
- Students will read the information on the squares. They will then cut and paste them in the appropriate square on the table.

Name: \_\_\_\_\_ Date: \_\_\_\_\_




### Types of Fossils

Complete the chart.  
Cut and paste the information cards in the corresponding squares.

Type of Fossil	How the Fossil Formed	Photo Example of the Fossil
Cast Fossil		
	<i>a fossilized, hollow impression of a plant or animal</i>	
		

<b>Trace Fossil</b>		nests, eggs, tracks, coprolites (dinosaur poop) that have been fossilized
forms when a mold is filled in with sediment	<b>Mold Fossil</b>	

### KEY Types of Fossils

Type of Fossil	How the Fossil Formed	Photo Example of the Fossil
Cast Fossil	forms when a mold is filled in with sediment	
Mold Fossil	<i>a fossilized, hollow impression of a plant or animal</i>	
Trace Fossil	nests, eggs, tracks, coprolites (dinosaur poop) that have been fossilized	

### Extension Ideas:

- KLRN PBS LearningMedia:  
<http://klrn.pbslearningmedia.org>  
On PBS LearningMedia, search for: How a Dinosaur Became a Fossil. It is an interactive asset, developed by WGBH, that shares an animated slide show to explain the process of how a dinosaur became a fossil.
- To learn more about fossils, students can visit:  
Enchanted Learning:  
<http://www.enchantedlearning.com/subjects/dinosaurs/dinofossils/Fossiltypes.html>