

# Fantastic Fossils

## Pre and Post Visit Materials



Kenosha  
Public Museum  
5500 1<sup>st</sup> Avenue  
Kenosha, WI



## Kenosha Public Museum Fantastic Fossils

Fantastic Fossils is an hour long museum experience designed for preK-1st grade. Through hands-on learning activities and exhibit investigations students will examine fossil, explore what Kenosha looked like millions of years ago and create their own fossils.

### Program Goals:

- Students will understand what a fossil is and how they are formed.
- Students will be able to identify different types of fossils using real specimens.
- Students will work collaboratively to build critical thinking skills.
- Students will engage in workshop generated conversations with teachers, other classmates and the facilitator.

### Learning Standards:

#### Kindergarten

- DCI
  - LS1 Structures and Processes
  - ESS2 Earth's Systems
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#### 1<sup>st</sup> grade

- DCI
  - LS1 From Molecules to Organisms: Structures and Processes
  - LS3 Heredity: Inheritance and Variation of Traits

### S&E Practices:

- Analyze and Interpret Data
- Engaging in Argument from Evidence

### CCC:

- Patterns
- Cause and Effect
- Structure and Function
- Stability and Change

This packet of information will help prep your students for this program and allow for a debrief back in the classroom. Please go over information with your students, prior to the visit.

## **Key Vocabulary**

Extinct: A species of animal or plant that has completely died out and is no longer in existence.

Fossil: remains of plants or animals that lived long ago.

Paleontologist: A person who studies fossils and animals and plants that lived long ago.

Scientific Method: The process and steps of a scientific investigation

## **Resources:**

Kids Dinosaur

<http://www.kidsdinosaurs.com/what-are-fossils/>

Brain POP Educators, Fossils

<https://educators.brainpop.com/bp-jr-topic/fossils/>

Oxford Museum of Natural History, How Fossils Form

<http://www.oum.ox.ac.uk/thezone/fossils/intro/form.htm>

## Pre Visit Activity

### **Paleontology Cookie Dig**

Objective: Students will learn what a paleontologist does.

Materials:

- Toothpicks
- Chocolate chip cookie (Note: Not chewy)

What's Going On Here?

Paleontologists study animals and plants that lived long ago. To do that they study fossils, or remains of the animals and plants. Paleontologists often go on digs to find these remains all over. At the Dinosaur Discovery Museum, the paleontologists go for digs out in Montana to document and collect fossils. These paleontologists need to be extremely careful with on the digs, so they do not hurt themselves or break any of the fossils.

Activity:

- 1.) Show students photos of fossils. Ask them how they think scientists got them out of the ground? What tools did they use? Is it easy or hard?
- 2.) Have students brainstorm how they would get the fossils out of the ground. Make a list of their ideas on the board.
- 3.) Explain to students that paleontologist use a variety of tools, including picks. In this experiment they will be using toothpicks to be picks, and the chocolate chips in the cookie to be the fossil.
- 4.) Have students carefully remove one chocolate chip from the cookie. Ask students if it was easy or hard? Did anyone get just the chocolate chip out without breaking it or without extra cookie? What techniques did they use?
- 5.) Have students try to remove as many chips as they can without breaking the cookie or the chips.
- 6.) Bring the students back together after they had time to excavate the cookie. Ask students to share out what they did; was it easy or hard? How did their tool work? Would being a paleontologist be hard work?

What's Going on Here?

Paleontologists sometimes have to work on excavating fossils in pretty hard conditions, like extremely hot, or uneven ground. Fossils take a lot of time to carefully excavate to ensure nothing is broken, especially the fossil.

Paleontologists often just want the fossil, by including extra rocks and debris it will weigh a lot more.

Extensions:

- Have students create a story or picture about paleontologists and what they do out in the field.

## Post Visit Activity

### **Fossil Dig**

Objective: Students will learn about paleontologists and fossil through a sensory activity.

Materials:

- Bin
- Sand
- Fossils (dinosaur toys, real fossils or homemade fossils)
- Large paint brush

Set Up:

- Put sand in the bin. Hide the fossils under the sand at different levels.

What you need to know?

Paleontologists are scientists who study fossils. Sometimes that means going out into the field to dig and collect fossils for scientific study. Using shovels, picks and brushes, paleontologists need to patiently uncover layers of dirt to see if there are any fossils in the area.

Activity:

- 1.) Review how paleontologists excavate fossils with your students. Remind them that it takes time and sometimes patience.
- 2.) Have students work in small groups. Optional for older students: set up a string grid with yarn and tape.
- 3.) Give students time to explore the bin with sand for fossils with the brush. Remind students to take their time as they excavate, and go slow.
- 4.) Once students have had time to dig, gather the students again. Have them share out how the dig went. Was it easy? What did they find?

Extensions:

- Have students create a story of what a paleontologist does.