

# Mini Fossil Dig

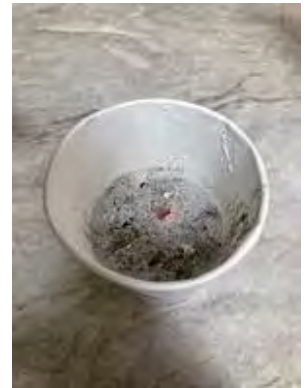
Explore the science of fossils and have fun digging for a mystery animal!

## Make Your Own Fossil Dig:

**Materials Needed:** 6 tablespoons sand, 2 tablespoons plaster of Paris\*, 1.5 tablespoons water, disposable paper cup or shallow plastic container, small plastic animal toy, popsicle stick or other mixing tool.

\*For a more crumbly texture, add more sand. For a more challenging dig, add more plaster of Paris.

**Preparation:** Mix plaster of Paris and sand in your container, and stir to combine. Add water and stir until thoroughly mixed. Hide a small plastic animal toy and cover completely. Press with your fingers to compact the mixture. Let dry for 24 to 48 hours. When your mini fossil dig is completely dry, use scissors to cut open the cup and carefully unmold.



## Excavate Your Dig:

**Materials Needed:** Prepared fossil dig, age-appropriate digging tools (plastic silverware, chopstick, paintbrush, old toothbrush, screwdriver, nail and hammer, etc).

Use the tools you gathered to uncover your “fossil”. Experiment with different tools and techniques. Remember that fossils can be fragile, so be gentle! What did you find? Discuss what kind of animal you found!



If you find a real fossil while exploring outside, share it with a museum expert to find out more about it. Each fossil tells a story. Fossils found all over the world offer a picture of the evolution of life on Earth!

# What is a Fossil?

A fossil is any evidence of a once-living organism. Specimens are usually considered to be fossils if they are over 10,000 years old.

**Body fossils** include any part of the actual animal or plant, such as bones, teeth, shells, and leaves. Body fossils can be preserved through *preservation* (freezing or drying), *petrification* (organic matter is replaced by minerals), or *permineralization* (the organic material's pores are filled with minerals).



Fossil skull of an extinct bison, painted with red ochre. DENA 6476. Photo by Lucy Tyrrell.



Petrified wood fossil. DENA 5530.

**Trace fossils** are evidence of an organism's activities or movements. Trace fossils include tracks, nests, eggshells, coprolites (fossilized feces), and gastroliths (stomach stones).

**Impression fossils** are a type of trace fossil. They form when a leaf, shell, skin, or foot leaves an imprint in soft earth. When the imprint hardens, it forms a fossil in the shape of the original object.



Impression fossils of plants (L: Angiosperm leaves, R: Gymnosperm leaves.) NPS photos / David Sunderlin.



Excavating a fossil on the Colville River. UAMN photo by Roger Topp.

Paleontologists excavate sites around the world to find fossils of animals and plants that lived long ago. They can learn about the climate, environment, ecosystems, and living things from the past to help us better understand the Earth's history.