

Salt Dough Fossils!

Raccoon Creek Explorers Activity #12

Supplies:

- **2 Cups Flour**
- **2 Cups Salt**
- **1 Cup Water**
- **Measuring Cups**
- **Mixing Bowl and Spoon**
- **Cookie Cutter or Glass**
- **Baking Sheet**
- **An Oven**
- **Something to press into the dough!**
- **This could be a toy dinosaur, sea shells, a leaf, or just about anything! Get creative and try different things!**

Time: About 2 1/2 hours.

Vocabulary:

Fossil: The preserved remains, impressions or traces of a once living thing from a previous geological age.

Mineralization: The conversion of organic material into inorganic material, such as when bone is fossilized and converted to calcite, iron or silica.

Paleontologist: A scientist who studies fossils.

Paleontology: A branch of science concerned with the history of life on earth and the fossilized remains of plants and animals.



Background:

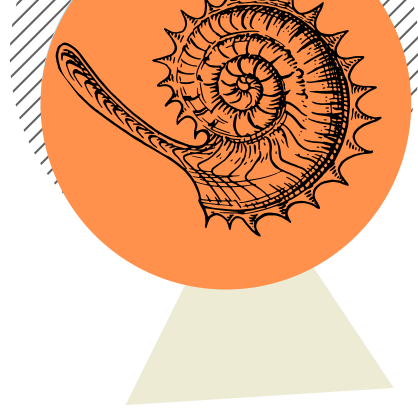
Around 480 to 252 Million years ago, the area that is now know as Ohio lay at the bottom of a vast, shallow sea. This sea was inhabited by prehistoric sharks and fish, algae, corrrals, and other strange and fascinating creatures! But how do we know what was here if no-one was around to see it?

One way scientists can learn about the distant past is to look at fossils. Fossils are the mineralized remains of plants an animals, and are actually pretty rare. Most organisms decompose quickly after death. In order to form a fossil, the remains must be covered with a layer of sediment very quickly. As the leaves, bones or other remains of ancient life lay in the ground, they are slowly dissolved and replaced with minerals, forming rocks in the shape of the remains.

Some things fossilize better than others. Organisms with hard body parts like skeletons, teeth or shells are more likely to fossilize than soft organisms like worms.

The study of fossils is called Paleontology, and the people who who study it are called Paleontologists. These scientist can learn all kinds of things from looking at fossils. We can learn what the environment was like by looking at the organisms that lived there. For instance, if we find fish fossils, we know there must have been water! Fossils can also help us piece together how organisms have changed over time.

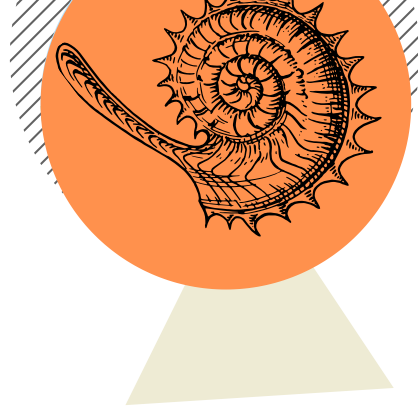
By making your own fossil imprints at home you can explore what its like piece together clues about ancient organisms using the evidence they left behind!



Let's Start!

- 1) Combine the salt and flour in a mixing bowl.
- 2) Add in the water a little at a time, stirring with a spoon until you reach a dough-like consistency. If its too runny, you can add more flour. If its too stiff, try adding a little water.
- 3) Knead the dough with a spoon until it comes off the sides of the bowl, then use your hands to knead for another 5 minutes.
- 4) Roll the dough out flat. If you have trouble with things sticking, try coating the surface, rolling pin and cookie cutters with a thin layer of flour.
- 5) Use the cookie cutter or glass to cut out circles of dough, then place them on the baking sheet.
- 6) Now you're ready to start making fossil impressions! Use the toys or other objects you collected to make impressions by pressing them into the dough circles.
- 7) Once you have your fossil impressions, bake them in the oven at 200 degrees Fahrenheit until they dry, usually about 2 hours.
- 8) Remove from the oven and let cool. Enjoy your new, hardened fossils!





Apply:

Which things made the best fossils?

Which things were hard to make into fossils?

If you only had the fossils you made to go on, how would you figure out what kind of organism made them? What would you be able to tell about that organism?

What kinds of things are fossils NOT able to tell us?

Wrap Up:

Now you have your own fossil specimens to study! Although scientist can learn a lot from fossils, this knowledge is sometimes incomplete. Because fossils are rare, and because some things fossilize better than others, we may be missing some important pieces. It can be hard to determine what an organism was like if you've never seen it before! For instance, scientists once thought all dinosaurs had lizard-like skin, but we now know that many actually had feathers! Fossils may be set in stone, but science often isn't! Our understanding of the world around us, and the prehistoric world, changes as we make new discoveries!

