



WEEK 2:

**DISCOVER
DINOSAURS**

ARE YOU READY TO GO BACK IN TIME? GET READY FOR A TRIP THROUGH THE AGES AS WE LEARN ABOUT DINOSAURS!

Dinosaurs were ancient reptiles that roamed the Earth millions of years ago. Hundreds of species of dinosaurs have been discovered so far and they came in all shapes and sizes. Some dinosaurs walked on four legs, some walked on two legs, some were as small as a cat and some were taller than a house! Scientists who study ancient living things, like dinosaurs, are called paleontologists. They learn about dinosaurs by finding and studying fossils, which are the remains of ancient living things. Fossil bones are bones that have been replaced by rock and minerals over a very long time. By looking at fossil remains of dinosaurs, and comparing them to animals alive today, paleontologists can understand what dinosaurs may have looked like, how they moved and how they lived!

DAY 1:

FOSSIL FORMATION

Fossils are rare to find because most living things are eaten or decay after they die. Fossil bones are formed when they are buried by mud or sediment quickly and the conditions are right. Water in the ground slowly replaces the remains with minerals over millions of years, turning them into rock. Usually, only hard parts of animals, including bones, shells, teeth, claws and eggshell, fossilize because the soft parts, like skin and muscle, rot away. Let's do an experiment to see how minerals can travel through ground water to help form a fossil!

Before you start, you should have:

- Two cups (one that you can pour sand in to and one that can be microwaved)
- Spoon (metal or plastic will work)
- Two tablespoons salt
- One cup of sand (you may have extra)
- 1/2 cup water
- A small piece of sponge (about a one-inch square)



Sam Noble Home



For more activities visit samnoblemuseum.ou.edu/samnoblehome

Get started:

1. Observe the sponge.
 - What does it feel like?
 - What happens when you squish it?
2. Microwave 1/2 cup of water for one minute (ask an adult if you need help).
3. Mix two tablespoons of salt into the warm water and stir until dissolved.
4. Pour sand halfway into the other cup.
5. Place the sponge into the cup and fill the rest of cup with more sand, making sure the sponge is completely covered with sand on all sides.
6. Slowly pour the warm saltwater into the cup until the sand is completely soaked but there is no standing water on top of the sand.
7. Leave the cup in a warm, dry place and let the sand completely dry (this may take a few days.)
8. Once the sand is dry, use the spoon to excavate the sponge "fossil."
9. Look at and feel the sponge after it's been excavated.
 - What does it feel like now?
 - Where did the minerals (salt) go?
 - How did the minerals get into the sponge?
 - Tell someone what you discovered about how fossils are formed!

Keep Exploring!

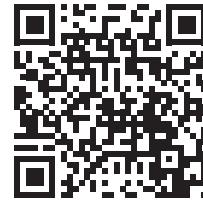
- Try the experiment with something other than a sponge, like a piece of food or paper towel, then compare your results.
- Try burying the sponge in something other than sand and see what happens. You can try using soil, clay or even flour.

What did you find?

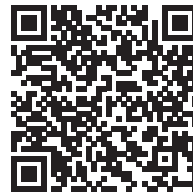
What did you discover? Upload a photo or video and tag the Sam Noble Museum on Instagram or Facebook. You can also use the hashtags **#samnoblehome** and **#summerexplorers** to share!

More information on how fossils are formed:

<https://www.youtube.com/watch?v=87E8bQrX4Wg>



<https://www.dkfindout.com/us/dinosaurs-and-prehistoric-life/fossils/>



Join Sam Noble Museum educators as they head outside to try the Fossil Formation experiment! (

<https://youtu.be/kH-wfh2xjIM>

