

Chocolate Sedimentary Rock

SUGGESTED AGE:

Ages 3+ (with adult assistance)

In this tasty activity, get a better understanding of the way sedimentary rocks are formed deep under the ocean, in some cases preserving evidence of ancient life!

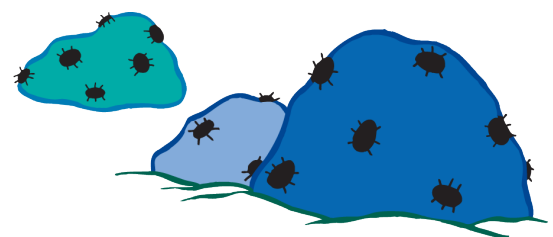


Sedimentary rocks form under the ocean as sediment (or sand) settles on the seafloor in layers. Over millions of years, these layers of sediment are compressed into solid rock. When a sea creature dies and falls to the seafloor, it can sometimes be covered by sediment and slowly fossilized.

The Los Angeles area was underwater for millions of years. Most of the land that is now L.A. emerged from the sea less than 100,000 years ago, through a combination of natural climate change and plate tectonic shifts. The fossils found in *L.A. Underwater* were formed during the 90 million year period when L.A. was covered by ocean. These fossils have become exposed as the land has slowly emerged.



NHM.ORG/spongebob





The Point Fermin Lighthouse in San Pedro sits atop layers of ancient seafloor, formed over millions of years as sediment and the remains of dead creatures settled at the bottom. (Photo Credit: Angel La Canfora, Los Angeles, CA. Alamy Stock Photo, M65WD7.)

WHAT YOU'LL NEED

- Grated chocolate (milk/dark and white)
- Crushed graham crackers (or plain cookies like shortbread or vanilla wafer)
- Small treats (pretzels, Swedish Fish, M&M's, etc—must be small enough to fit in muffin tray)
- Muffin tray
- Cupcake liners
- Foil

STEP 1: Create the “sediment”.

- Grate chocolate using a box grater ahead of time and keep in a cool place until you are ready to begin (keeping colors separate). You will need a small handful of each type of chocolate for each “rock”.
- Crush graham crackers/cookies in a ziplock bag. Try to make the “sediment” as fine as possible, as it will more easily form a solid mass.

STEP 2: Layer the sediment.

Place a cupcake liner into the tin. One at a time, sprinkle in the different chocolates and crushed crackers, to create layers. Try your best to create evenly sized layers.



STEP 3: Add your creature.

When the tin is about halfway full, place a few small treats to represent animals that died and fell onto the seafloor. Continue to layer more chocolate and crushed crackers so that the “animal” is completely buried.

STEP 4: Apply pressure.

Place a small sheet of foil on top of the rock and press down hard to compact the chocolate. Try to press as evenly as you can over the entire rock so that the layers are preserved. (TIP: This is much easier if you place a measuring cup on top and push from inside the cup.)

STEP 5: Excavate your fossil.

Once the chocolate is compacted, gently remove the sedimentary rock. Break or cut your rock in half to see the distinct layers and the creatures that were trapped and fossilized in between!

