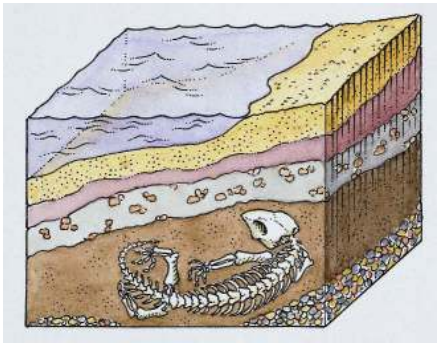
Try This at Home Science:
Fossil Feast

Activity Overview:
Create an edible fossil model with tasty layers of cookies and pudding!

Materials:
- Clear cup
- Spoons
- Bowls
- Vanilla and chocolate pudding
- Blue food coloring
- Sprinkles and/or animal crackers
- Graham crackers
- Oreos

Try this!
1. Crush up the graham crackers and Oreos in separate bowls. Add a few drops of blue food coloring to half of the vanilla pudding and stir to combine. Now you are ready to create the edible layers.
2. Begin by adding a layer of graham crackers and Oreos to the bottom of the cup.
3. Add a layer of blue pudding.
4. Place sprinkles and/or animal crackers on top of the blue pudding.
5. Add a layer of chocolate pudding and graham crackers.
6. Add a layer of plain vanilla pudding and Oreos.
7. Continue to add layers of pudding, graham crackers, and Oreos!

What's happening?


Imagine a dinosaur walking through a river. The blue pudding represents the ancient river bed. The sprinkles and animal crackers are the plants and animals that died millions of years ago in the river bed. The dinosaurs were able to be fossilized because they had hard parts, like bones, whereas the plants created impressions in the sediment. Plant and animal tissue was generally eaten or rotted away. A layer of sediment covers the remains, represented by our chocolate pudding layer. These sediments were carried by rivers and streams and were deposited in the ancient river bed. This is a very important step and it had to happen quickly. If the dinosaurs were not covered quickly, they would be eaten by scavengers and the bones could be scattered. The sediments are deposited in layers over time, and we continue to add layers of pudding, graham crackers, and cookies. The coloring of the various layers (sediment) is due to the particles that make up the soil, clay, mud, etc. at different times.

How does this relate to earth science?

Paleontologists study the history of life on Earth. They rely on fossils to gain information about plants, animals, bacteria and more. By looking at fossils, paleontologists can learn about extinct organisms, their life and behavior, their environments and climate. They can also learn about how they evolved over time. Much of what we know about dinosaurs has derived from the work of these scientists.

Different types of fossils form depending on the conditions of the environment at the time:

Mold Fossils – Impressions left by a decomposed animal or plant. They are a negative image, imprint or void. They often form when an animal or plant is left in acidic groundwater. Silt deposits form over the animal or plant impression after the organic materials dissolve.

Cast Fossils – These are the remnants of a plant or animal. They are filled-in impressions that leave a positive image of the plant or animal. They typically happen when organic material dissolves and leaves a carbon film behind, creating a sort of carbon copy.

True Form or Body Fossils – These are the body parts or remains of an animal or substance. They typically occur when an organism is caught in ice, sap or tar. Complete features can be left behind, including soft tissue. This is how we have learned about many ice age mammals!

Trace Fossils – These are marks that have been left by an animal or plant that make an impression. Trace fossils can include footprints, nests, burrows or other markings. The structure remains as a mineral form.

Now try…

- Make an edible fossil dig with yogurt and fruit, or with veggies and hummus or for favorite dressing. Use granola or crushed pita chips for the larger sediments.

Additional Information

Adapted from k5ChalkBox's Sedimentary Rock Formation activity.

For more "Try This at Home Science" activities, visit www.mi-sci.org.