Rocks & Minerals – Making Fossils

Finding plants and animals buried in rocks gives us clues to what our planet Earth was like in the past. This activity will teach you about the process of fossil burial, preservation, and discovery. It will give you the opportunity to think about the types of things (or specimens) one finds buried in sediment, about the sediments and processes that preserve these specimens as fossils.

Materials:

- small oven-proof dish or pan
- sand
- oven
- natural clay, play-dough or modeling clay (Not plasticine - no oil-base clays! They burn!)
- leaves, twigs, empty shells, dead bugs, etc.

Procedure: (Remember to have your parent's permission and have them watch and help you.)

- Layer the bottom of your dish with about 1 cm of the clay.
- Explore your backyard and find things that might become fossilized if they were to be buried for a few million years, making sure that whatever you pick up is no longer alive!
- Next, press your objects gently into the clay.
- Then, cover this layer of fossils-to-be with a thin layer of sand. This is so your clay layers will part easily after you 'bake' your fossils.
- Carefully add another layer (the geologic stratum) of clay to your sample and gently press it down.
- You are now ready to dry or create a rock out of your clay (sediments) with the buried 'fossils'. Ask your parents to put the dish in an oven on very low heat. You want to dry your sample slowly so it doesn't crack. This might take an hour or more depending on how wet the clay was.
- When the sample looks dry and has cooled, very gently remove it from the dish and pry it apart at the sand layer.

What's Happening:

Can you see your 'fossil' specimens? Have they left impressions in the upper and lower clay surfaces? Did your "rock" break along the sand layer?

When once living organisms get covered over with sand and clay and given enough material on top of them and enough time they will leave a record of their existence which we call a fossil. You can often find fossils in our area of the province.

Extension:

Go online or a book about fossils at your library and look up the difference between 'casts' and 'moulds'. See if you can identify each in your sample. Visit the Royal Tyrrell Museum or Dinosaur Provincial Park.

This activity is based on our Rocks & Minerals kit. The source for this lab was: http://www.scienceviews.com/geology/activity2.html. Our teaching kits (described on our website) are loaned out FREE to provide classroom teachers and parents of home schooled children an opportunity to explore Science in interesting ways. Mark your calendars, our next community event will be the Family Science Olympics Oct 13, 2012. Also, please consider volunteering as a classroom speaker or allow your business as a field trip location.

Lorne Cooper, Regional Executive Director

PRAXIS, "Making Science Fun". Contact Praxis at praxis@praxismh.ca, www.praxismh.ca, Tweet or follow us @PraxisMedHat, or friend us on Facebook. Address: c/o 200 7th Street S.W., Medicine Hat, AB, T1A 4K1 Phone: 403-527-5365, Fax: 403-527-6570.