Coffee-Infused Fossil Impressions

Use your favorite morning brew to create fun fossil impressions worthy of display or gift giving.

Suitable for: All Ages

Materials:
- 1 Cup Used Coffee Grounds
- ½ Cup Cold Coffee
- 1 Cup Flour
- ½ Cup Salt
- Shells, Biofacts, Items for Impressions (small dinosaur figures)

Vocabulary:
- Fossil
- Biofact
- Mineralization
- Strata
- Impression
- Sediment
- Deposit
- Excavation

Directions:
1. Ask a grown-up to brew a cup of coffee & save you ½ a cup, cooled, plus the grounds.
2. Measure & mix the coffee grounds, flour, & salt in bowl, then stir in the coffee.
3. Knead the dough until well incorporated & smooth out on wax paper.
4. Use empty can, cup, or jar mouth to cut circles out of the dough or use a butter knife to cut into shapes to use.
5. Press objects firmly into the dough to leave an impression revealing the textural detail & depth of the item selected.
6. If you would like to hang your imprint art, later, you can use a toothpick to poke a hole into the dough at least ½ inch from the edge.
7. Leave them out to dry & harden overnight or bake at 250 degrees for 1-2 hrs.
8. To hang your imprint, thread ribbon or string through the hole & knot ends.

The Science Behind the Experiment:
Fossils are the mineralized or otherwise preserved remains or traces (such as footprints) of animals, plants, or other organisms. Biofacts are remains from living organisms, like shells, skeletons, sea urchin tests. Soft tissues are quickly broken down, but skeletal remains, calciferous shells, & such are longer-lasting. True fossils become mineralized over time, with the tissues being entirely replaced by minerals from the surrounding sediment, which is why most fossils are as hard as the rock beds they are excavated & extracted from. Animals and plant materials preserved in amber are also examples of fossils, as are footprints or imprints of plants & other organisms.

Make it Awesome:
You can always add a layer of clear coat or shellac to preserve your fossil impression art!

Extensions:
1. Research Fossils & learn more about the process of fossilization, mineralization, & other ways fossils are preserved naturally.
2. Visit a museum to see fossils displayed from your local areas or others you visit.
3. Visit a paleontological dig site or join a fossiling outing in your area. SWFL has wonderful opportunities in the Peace River and Venice areas where tour operators take groups & families on guided excursions for fossil hunting.

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