**DIY Dig Surprise Stones**

Have a budding paleontologist or archaeologist on your hands? Let them excavate at home & uncover surprise treasures as they dig through the sediment for a grand reveal.

**Suitable for: All Ages**

**Materials:**
- 1 Cup Used Coffee Grounds
- 1 Cup Flour
- ½ to 1 Cup Water
- Treasures (small dinosaur figures, shells, gems to hide)

**Vocabulary:**
- Archaeology
- Artifact
- Sediment
- Archaology
- Paleontology
- Fossil
- Excavation

**Directions:**

1. Ask a grown-up to brew a cup of coffee & save you the grounds.
2. Measure & mix the coffee grounds, flour, sand & salt in a bowl.
3. Slowly stir in water to moisten but keep the dough stiff & not runny.
4. Knead the dough until well incorporated & break it into sections to create your stones or rocks to hide the surprise objects, sized appropriately.
5. Hide shells, gems, small figurines, or other objects in the middle of the dough, wrapping them completely to keep them a surprise.
6. Leave them out to dry completely for 2-4 days or place them on a cookie sheet to bake at 175 degrees for 15-20 minutes.
7. Once completely dry & cool, a hammer, mallet, screwdriver, ice pick, or even just plastic silverware or toothpicks can be used to break open the stones & excavate the surprise inside.

**The Science Behind the Experiment:**

Fossils are the preserved remains or traces (such as footprints) of animals, plants, or other organisms. Paleontologists dig for fossils to learn more about early life forms. Archaeologists, on the other hand, study human civilizations & search for their remains and artifacts to learn about how they lived, what they ate, how they spent their time, structured their families, homes, & societies.

**Make it Awesome:**

Try making larger stones (may need more drying time) with a few objects. Varying shapes & sizes can be fun, & get creative with what you put inside.

**Extensions:**

1. Research Fossils & learn more about the process of fossilization, mineralization, & other ways fossils are preserved naturally.
2. Research to learn more about archaeology & how artifacts from human civilizations teach us about how they lived.
3. Visit a museum to see fossils or artifacts displayed from your local areas or others you visit.
4. Visit a paleontological or archaeological dig site in your area.
5. For site digs, where items are found & how they are oriented can offer clues to help paleontologists or archaeologists learn more. Detailed drawings, photographs, & graphs plotting location coordinates, depth, etc, preserve such data to help give a bigger picture.

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