MINIATURE EROSION

Simulate different types erosion on a hand-made mountain.

**Procedure**

- This experiment can be messy, so you can do this experiment outside or set it up in a large tray inside. Make a pile of dirt that is at least 5-6 inches tall. This will be your mountain.
- Place some sand and rocks on your mountain. Stick some coins into the dirt with about half the coin sticking out. Measure how much of the coin is showing and record it on a piece of paper.
- To begin, pour a few drops of lemon juice or vinegar on the rocks. Observe and record what happens.
- Next, use your own breath, a paper fan, or an electric fan to create wind. Blow air across the surface of the mountain. Observe and record what happens.
- Then, use a watering can or a water bottle with holes poked in the bottom to shower water over the mountain. Observe and record what happens.
- Use your ruler to measure any changes on your mountain. Is it the same shape and height? Are more of the coins exposed? Did anything shift, move, or fall?

**Materials**

- Dirt or soil
- Sand
- Rocks
- Lemon juice or vinegar
- Water
- Watering can
- Ruler
- Tray
- Coins

**Results**

You have simulated chemical, wind, and water erosion and observed their effects.

**Why?** Weathering is the breaking down of Earth's surface by forces like wind, water, ice, or even chemicals. Erosion is when wind and water pick up the weathered sand and soil and carry it to a new location. They are processes that takes place over a long period of time.

Sometimes chemicals produced by humans float up into the air and gets combined with water in the atmosphere - this creates acid rain. When acid rain hits stone or concrete, it dissolves a little bit of the surface. Over time, this can cause severe damage.

To learn more about Earth science, check out the Restless Earth exhibit at the Pink Palace Museum.