STALAGMITES AND STALAGMITES LAB

Grade Level: 4-college

OBJECTIVE: Students will use this experiment to depict the formation of stalactites and stalagmites in a way that can be done and taught by others. Students will demonstrate an understanding of how stalagmites and stalactites form in caves.

MATERIALS NEEDED

- 2 jars
- String
- 2 washers
- 1 plate
- Epsom salt
- Water

METHOD

STEP 1

Create a mixture of the Epsom salt and water in the two jars.

STEP 2

Next, tie a washer to the ends of a piece of string. Make sure the string is long enough for the washers to reach the bottom of both jars with some slack in between.

STEP 3

Place the jars on opposite ends of a plate

STEP 4

Wait…. This experiment typically takes a few weeks for the formations to build up. For better formations, let the jars sit untouched for a few months. The goal is to have the mixture of salt-water work its way up the string and the salt will allow crystals to form. When the mixture reaches the middle of the string, it should drop onto the plate, forming what appear to be stalagmites and stalactites.
RESULTS

We placed one experiment in a windowsill and another in a dark closet. After setting up the experiment, we let it sit for a few weeks. When we checked for progress we noticed in both experiments, crystal formations were growing up inside of the jars. We decided to change the string in the jars to yarn, which was more effective given the time remaining for the experiment. The experiment we placed in the closet was closest to our expected outcome. The string connecting the jars had begun forming crystals and dripped down onto the plate. The jar in the windowsill on the other hand just had crystals in the jars, but they were larger and more defined.