

**Challenge 1: Make Your Own Stalactite**

Although hobbits love deep caves, there are other cool things you can find in them too! Beautiful shapes and sizes of objects created by nature, makes a cave a magical place to explore! In this activity you will learn to build a Stalactite.

**Instructions**

Equipment Needed:

* Two paperclips
* A piece of rope (jute) 11 inches/30cm long
* Two empty 16 oz. jars or large glasses
* Epsom salt
* One spoon
* One saucer

Instructions:

1. Take your two jars (or to large cups) and fill them with really hot water (not boiling)
2. Take your spoon and start adding Epsom salt to both jars. Keep adding salt and stirring until the Epsom salt does not dissolve anymore, this means your solution is saturated with salt (NaCl).
3. Place a saucer in between both jars.
4. Take the yarn and cut a piece long enough to reach the bottom of each jar, put the paperclip on the end of each string to keep it down in the jar (it will look like a string bridge that goes across the saucer.)
5. Let it sit for about a week and observe what happens.

The Goal:

1. Due to Capillarity **(PLEASE DEFINE**) the water will rise and gather in the middle of the rope.
2. When the water gathers and begins to fall, each drop should leave some salt water on the rope.
3. The salt water should slowly accumulate, give it about 4 days to see cool results!

**Bonus Question**

**What are the difference between Stalactites and Stalagmites?**

<https://www.youtube.com/watch?v=nYxVtYUG5bg>