

Salt Stalactites

Duration: Prep – 20 minutes

Formation – Several Days

Suggested Age: 4-12

Supplies

- Epsom Salts
- Water
- 2 identical glasses
- 2 paperclips or weights
- Spoon
- Small plate or bowl

Steps

- Fill your glasses about $\frac{3}{4}$ full of water. Tip: Salt will dissolve faster in hot or warm water than it will in cold water.
- Add salt to glasses and stir until the salt dissolves. Repeat until no more salt will dissolve and there is some sitting on the bottom of the glasses.
- Find a location where they won't be disturbed for a few days. Place a small plate, bowl, or even a piece of cardboard between them. This will keep the salt water from dripping onto your table or counter.
- Cut a string. Make sure it is long enough to hang between the glasses and reach from the bottom of one glass to the bottom of the other glass. If your glasses are short, you can use a rolled up paper towel.
- Put a paperclip on each end of the string, put one end of the string in each of the glass. There should be a slight dip between the two glasses.
- Watch your stalagmite and stalactites grow over the next few days!

Experiment

- The more salt you add, the faster you will see results. If you want it to grow much faster, try heating the water on the stove to dissolve more salt.
- Try testing how far the string dips! Does the water drip faster if the string is above or below the water line? Which forms stalactites faster?

Definition

Stalactites: an icicle shaped deposit of calcium carbonate (such as calcite) that forms on the roof or sides of a cave when liquid drips from the roof.

Stalagmites: a cone shaped deposit of calcium carbonate (such as calcite) that forms on the floor of a cave when liquid drips from stalactites above

Tips to remember difference between stalactites and stalagmites:

- Stalactites hold tight; Stalagmites might reach the roof
- Stalactite has a “c” and is on the ceiling; Stalagmite has a “g” and is on the ground

Adapted from

http://www.sciencekidsathome.com/science_experiments/growing_stalactites.html and <https://www.exploratorium.edu/cooking/seasoning/kitchen/activity-saltsculpture.html>