

STALACTITES AND STALAGMITES LAB

GROW YOUR OWN CRYSTAL CAVE



ALL AGES

Turn your kitchen into a mini science lab and create a sparkling cave filled with crystal “stalactites” and “stalagmites.” This simple activity is not only fun, it’s a hands-on way for kids to explore science concepts like how caves form, how crystals grow, and how liquids move through materials. Watching the crystals slowly appear encourages observation skills, patience, and curiosity. Kids love the magical, colorful results, and parents can enjoy making predictions, asking questions, and discovering the science together.

This activity lets kids see how caves slowly grow amazing rock formations over time — except yours will grow in just a few days instead of thousands of years.

SUPPLIES

aluminum foil
2 small jars or juice glasses
baking soda
food coloring
paper towel
spoon
a waterproof rectangular container
example: a plastic bin, large enough to hold two jars when set on its side

HOW-TO

1. Turn a plastic storage bin on its side to make a cave entrance and line the inside with aluminum foil so it looks like a shiny cave wall.
2. Fill two small jars or glasses with very hot tap water. Add spoonfuls of baking soda and stir. Keep adding baking soda until it no longer dissolves and a little settles at the bottom.
3. Add a few drops of food coloring to each jar and stir. Try using different colors to make your cave crystals even more exciting.
4. Place both jars inside your foil lined cave.
5. Fold two thin strips of paper towel lengthwise and drape them between the jars like a bridge, making sure the ends dip into the liquid in each jar.
6. Check that the liquid is traveling up the paper towel. Soon the mixture will begin to drip from the middle of the bridge.
7. Ask your child what they think will happen inside the cave over the next few days and make a prediction together.
8. Check your cave every day or two. As the liquid drips and dries, tiny baking soda crystals will begin to form. Over time you will see crystal formations growing both downward and upward, similar to the stalactites and stalagmites found in real caves.

QUESTIONS

1. What do you notice happening each time you check your crystal cave?
2. How is the water moving between the jars and the string?
3. What shapes or patterns do you see in the crystals as they grow?
4. If you move the jars farther apart or closer together, what do you think would happen to the crystals?