

Grow Sparkling Borax Crystals

Get your child excited about Earth science by growing your own crystals at home! Using just a few materials, your child can start his very own borax crystal garden. As your child watches the crystals form, he'll get to see the process of crystallization firsthand and will better understand the formation and structure of crystalline rocks and minerals. Try this experiment while your child is learning about rocks and minerals in school to supplement his in-school curriculum.

Note: Adult supervision is recommended during boiling water steps and to ensure Borax is not ingested.

What You Need:

- Pipe cleaner
- Scissors
- Pencil
- String
- Mason jar
- Water
- Borax
- Oven mitts



What You Do:

1. Discuss with your child what shape he would like his crystals to be: A star, a heart, a spiral, a snowflake? Once he's decided, help him form his shape out of pipe cleaners, making sure it fits through the opening of the jar you are using.
2. While your child makes his pipe cleaner shape, bring a pot of water to boil.
3. Have your child knot one end of a length of string around the pipe cleaner shape and the other end around the pencil. Carefully lower the pipe cleaner shape into the jar, then lay the pencil across the rim of the jar. If the pipe cleaner touches the bottom of the jar, adjust the string so that the pipe cleaner hangs freely. Lift the pencil to remove the pipe cleaner shape from the jar, then set aside.
4. Carefully pour boiling water into the jar, filling it about three quarters full.
5. Have your child add borax to the water, one tablespoon at a time. Stir after adding each tablespoon. After 4 tablespoons have been added, check to see if the borax has begun to collect on the bottom of the jar. If not, have your child add more borax to the jar, little by little, until there is a small amount has collected on the bottom.
6. Explain to your child that hot water can hold more borax than cold water. The crystals will grow on the pipe cleaner as the water cools and begins to release the borax.
7. Have your child lower the pipe cleaner shape into the jar, laying the pencil on top as before. Make sure the pipe cleaner is fully submerged in the solution.
8. Using oven mitts, carefully move the jar to a safe place where it won't be disturbed.
9. Let the jar sit for 24 hours. Have your child periodically check the progress of his crystals to see how they are growing. Explain to your child that the borax molecules are attracted to each other even when they are in the water, first forming small crystals and then larger ones as they attach themselves to the pipe cleaner. Once the pipe cleaner is covered in crystals, remove it from the solution.
10. Hang your crystal in a window and enjoy its sparkling beauty!

