

Grow a Crystal Snowflake

Materials:

- Wide mouthed glass jar
- Pencil
- String
- Pipe cleaners
- Borax
- Boiling water
- Adult helper
- Food color (optional)

Procedure:

1. Twist a pipe cleaner into a snowflake or other fun, festive shape. Be sure the finished shape fits inside the jar.
2. Tie one end of the string to your pipe cleaner shape and the other end to a pencil. The string should be long enough so that when the pencil is placed on top of the jar, the pipe cleaner shape will hang in the middle of the jar. When done, set the pencil pipe cleaner contraption aside.
3. Have your adult helper fill the jar with boiling water.
4. Add Borax to the hot water, about three tablespoons per cup of water (so if you used two cups of water, you would need six tablespoons of Borax). Carefully stir the boiling water until the Borax is dissolved. (Optional: You can also add liquid food coloring to the water if desired.)
5. Carefully lower the pencil and pipe cleaner contraption into the jar. Let your jar sit in an undisturbed location overnight.
6. The next day, carefully remove the pipe cleaner from the jar and enjoy your crystals!



What's going on?

Hot water can hold a lot more dissolved Borax than cold water because warm water molecules are farther apart from each other than cold ones, so more Borax can fit between them. As the water cools, the water molecules move closer together and they are unable to support as much dissolved Borax. The Borax will start to come out of the solution and form crystals on the pipe cleaner!

