Make a Crystalized Snowflake

A HEART AND MIND PRESS ACTIVITY FOR KIDS, AND KIDS AT HEART, AGES 4+

Mix a little bit of science with our solstice celebration! You can watch the crystals form overnight! This snowflake’s sparkly clusters are made by dipping shaped pipe cleaners into borax dissolved in boiling water. As the water cools, borax forms crystals that cling to pipe cleaners.

WHAT TO FIND

- Pipe Cleaners
- Blue Food Coloring
- Boiling Water
- String
- Borax
- Pencil
- Jar

WHAT TO DO

1. Twist three 5-inch pieces of pipe cleaner together to form a snowflake, then add a 1 1/2 -inch piece to each point. (Remember that they don’t have to be perfect, each snowflake is unique)

   Tie one end of the string to the flake, and the other end to a pencil.

   Find a big enough jar so the suspended flake won’t touch the sides.

2. Fill with 3 tablespoons borax and 1 drop blue food coloring per 1 cup of boiling water. Hang the snowflake in the jar. Let sit overnight; remove, wonder and admire.

HOW DOES IT DO THAT?

The liquid mixture of borax and water creates a “suspension”. A suspension is a mixture that contains solid particles large enough to “settle out”. By mixing the borax into hot water, instead of room temperature or cold water, the borax stays suspended longer within the water.

As the borax begins to settle out, (or separate into sediment) it begins to crystallize. You can see this crystallization on both the bottom of the jar and on your pipe cleaner snowflake. The borax continues to settle on top of the snowflake and on top of other borax crystals, building layers of crystals until you pull it out of the water the next morning.