Borax Crystal Ornaments

http://www.sciencekiddo.com/borax-crystal-ornaments/

Easily make your own borax crystal ornaments for Christmas this year. They only require two ingredients and they turn out shiny, sparkly, and gorgeous. These borax crystal ornaments make aweinspiring homemade gifts for friends and neighbors. Plus, the kids can learn about crystals and chemistry as they grow their very own stunning crystals on their unique creations.

Last year we made an adorable <u>snowy snowman</u> using this same process. He makes a shiny little holiday decoration as well!

Make Borax Crystal Ornaments

Materials

Pipe Cleaners - These sparkly tinsel stems would be perfect for the holidays.

Festive Cookie Cutters - Keep these around to make squishy Christmas window gels, too!

String

Pencil

Mug, vase, or jar

Boiling Water

Borax - This is an inexpensive ingredient in so many of our science experiments. <u>Make slime</u> or crystallize more items with the leftovers.

Directions

- Bend your pipe cleaner into your desired shape. We did this by using cookie cutters as a guide as seen below.
- Tie a piece of string to your pipe cleaner shape. You can use string, yarn, or even dental floss if you want!
- Attach the string to a pencil, pen, spoon, or other long object and set aside.
- Fill your jar or vase with boiling water. Add 3 Tablespoons of borax per cup of water and stir. It's okay if some borax settles on the bottom of your container.
- Lower your pipe cleaner shape into the hot water/borax mixture. Make sure it is not touching the sides or the bottom of your container, and that you can get it through the mouth of your container easily. Feel free to trim or bend your shape accordingly. It is fine to have two ornaments in one large container just as long as they don't touch.

- Make sure your jar is in a quiet place where it won't be disturbed. You don't want it to get jostled or bumped at all while the crystals are growing.
- After a couple of hours you will start to see crystals growing! Leave your mixture overnight for best results, or remove your ornaments after just a few hours if you just want a light dusting of crystals.
- Let your borax crystal ornaments dry on a paper towel for an hour or so. Then pick it up and admire it in the sunlight. Seriously, the crystals are intricate and gorgeous. You will want to grab a magnifying glass to observe them more closely!

The thing I was most surprised at is how sturdy these are! I thought they would be delicate and fragile, but they are deceptively hardy. Also, they look edible, but they aren't. I even found myself tempted to gnaw on them. Don't do it.

The Science of Growing Borax Crystals

Crystal science is amazing. The word crystal actually refers to any material that is arranged in an ordered form. Some crystals (like borax) are arranged into little cubes. Other crystals (like snowflakes) have six different arms. You can grow crystals from many substances including salt, sugar, epsom salt, baking soda, and borax. In most of my undergrad chemistry labs the last step was to crystallize the product so we could weigh it. I'll tell you, though, these borax crystals are much easier to grow than most of the substances we had to grow in my lab, and they are more beautiful, too!

I love the way these ornaments reflect the light on our tree. The crystals give the shapes a delicate frosty look.