SNOW CRYSTAL ORNAMENTS

In this DIY activity, we will create our own unique snowflake ornaments and explore why no two snowflakes are alike!

Materials

- String
- Wide mouth jar
- Pipe cleaners (white or blue)
- Boiling water (Adult supervision!)
- Borax
- Pencil or stick wider than jar

Instructions

1. Take pipe cleaner and cut it into 3 equal parts. Then arrange pipe cleaner parts into a star shape by making an "X" with two of the pipe cleaners and laying the last pipe cleaner down the middle. Twist pipe cleaners where necessary to keep them holding together.
2. Take one end of a pipe cleaner and attach a piece of string to it. Then attach the other end of the string to the pencil.
3. Carefully fill the jar with the boiling water. Keep track of how many cups of water you use to fill the jar. (do this entire step with adult supervision or let an adult do this part)
4. For each cup of water that is in the jar, add three tablespoons of borax. Then, stir until most or all of the borax has dissolved into the water.
5. Put the star into jar and let the pencil rest on the edges of the jar.
6. Leave the star overnight and in the morning there will be a snowflake!

Background Information

During wintertime, snowflakes form when water vapor in clouds condenses immediately to create ice. Because of the molecular structure of water, these new snowflakes begin to form a crystal pattern. The "classic" snowflake is a six-sided crystal, but with changes in humidity and temperature these shapes can differ. Sometimes the flakes can form in columns, thin needles, or a flat shape called plates. While scientists have learned a lot about snowflakes, even they don't know exactly why some of these shapes occur when they do. The uniqueness of snowflakes comes from environmental factors of their formations and also the high number of possible formations crystals can make. That is to say, there are a lot unique combinations you can make with crystal structures because of their many components. These factors combined mean that, for all intents and purposes, it's true that no two snowflakes are alike!

References

https://ssec.si.edu/stemvisions-blog/beauty-and-science-snowflakes

http://www.sciencefun.org/kidszone/experiments/snowflakes/