



Do It Yourself (DIY) Activity

Grow Mineral Crystals DIY

 Duration: **30-45 min**

 Difficulty: **Medium**

 Cost: **\$0-\$15**

Learn how to grow your own mineral crystals!

Material List

- 1** Container of Borax
- 1** Measuring Cup
- 1** Large Glass Container
- 1** Tube of Food Coloring
- 1** Pipe Cleaner
- 1** Pencil
- 1** Piece of String
- 4** Cups of Hot Water

Adult supervision

Instructions

- 1** Have an adult help you heat 4 cups of water until it is almost boiling.
- 2** Pour the hot water into the glass container.
- 3** Next, add 2 cups of borax and a few drops of food coloring. Mix it all up for 60 seconds.
- 4** Bend your pipe cleaner into an interesting shape and hang it from the pencil using the string.
- 5** Place the bent pipe cleaner into the liquid, letting the pencil rest on top of the container.
- 6** Let it cool overnight. The next day you will see crystals!

How It Works

A mineral is a natural solid with a characteristic crystal shape. In nature, one way mineral crystals form is when water is heated deep inside the Earth, allowing a lot of minerals to dissolve in it. As the hot water approaches the surface, it cools slowly, leaving behind mineral deposits. The mineral we crystallized in this demonstration is called sodium borate. It formed crystals because a lot of it dissolved in the water and when the water cooled, it could not hold on to all the sodium borate anymore.