

Crystal Letters

ACTIVITY DESCRIPTION

In this activity, youth will use household supplies to make their initials out of crystals. As part of the 'Who I Am' unit, this STEM activity introduces the process of recrystallization. This activity supports the development of critical thinking, inquiry skills, and creativity. Please note: This activity requires the involvement of an adult because it involves using boiling water.

SUPPLIES

- Jar or container that is heat resistant
- Pipe cleaners
- Borax
- Boiling water
- String or yarn
- Scissors
- Pencil or popsicle stick

STEPS

- Note: See the Crystal Letters Handout for a visual step-by-step.
- Bend a pipe cleaner to make the first letter of your name. Or, you make a shape like a circle or a heart.
- Add 3 tablespoons of Borax into to 1 cup of boiling water. If you have a bigger container, double or triple these amounts. Make sure that your container is filled with enough water so that when you dip the letters in, it is completely covered by water.
- Use string or yarn to tie your letter to the pencil or popsicle stick so that it hangs into the water.
- Dip your letter into the water and leave it there. Make sure it's not touching the bottom or the sides.
- Come back and check on your letter every few hours. It will take about 5 hours for the crystals to start to form and it will take a full day or night for it to be fully done.
- Hang your crystal letter by windows or light and enjoy how it sparkles.

EXTENSIONS

- Add a few drops of food coloring to the water to make crystals in different colors.
- Make the first initial of a family member or friend and give it to them as a gift.
- Use the pipe cleaners to make other shapes out of crystals, like snowflakes, hearts or stars.

QUESTIONS FOR DISCUSSION

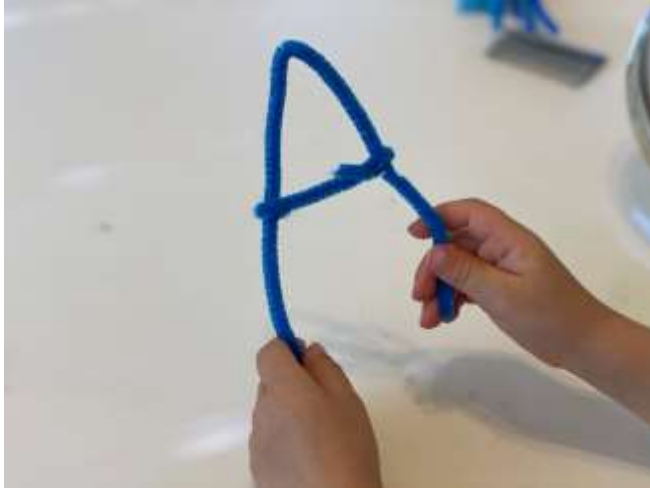
- Discuss how crystals form. Crystals can form when we slowly cool liquids that contain dissolved minerals. For a longer explanation of how Borax crystals grow, click here: <https://www.childrensmuseum.org/blog/real-science-borax-crystals>
- What did you think was going to happen when you put the pipe cleaner in the borax water?
- Did you check on your letters every few hours? What was happening when you checked on them?
- Did anything surprise you?
- What did you make?
- What do you like or not like about your crystal letter?
- Would you do anything differently?

CREDITS

- Playdough to Plato's Crystal Names available here: <https://www.playdoughtoplato.com/kids-science-crystal-names/>
- Mess for Less' Borax Crystal Letters available here: <https://www.messforless.net/borax-crystal-letters/>

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STEP 1



STEP 3



STEP 2



STEP 4

