

Candy Crystals

Make your own mineral crystals and learn how some rocks and minerals are formed! When you mix hot water and sugar you make what is called a “super saturated solution”. This means the water can hold more sugar than usual because it is so hot. As the water cools the sugar “comes out” of the solution and forms crystals on your skewer. The skewer act as a “seed” or starting place for the sugar crystals to start to grow. This is how some minerals and rocks are formed (ex. calcite and limestone), as well as stalagmites.

Materials:

- Wooden skewer, clean popsicle stick, or clean wooden chopstick
- Tall narrow glass or jar
- Clothespin
- 1 cup of water per glass
- 2-3 cups of sugar per glass



Instructions:

1. Clip the skewer/popsicle stick/chopstick in the clothespin so that the stick is hanging inside the glass about 1 inch from the bottom of the glass. When you have the clothes pin at the right length, set the stick and clothespin aside for later.

ADULT SUPERVISION REQUIRED FOR FINAL STEPS!!

2. Pour the water into a pan and bring it to boil.

3. Pour about $\frac{1}{4}$ cup of sugar into the boiling water and stir until ALL of the sugar has dissolved.

4. Keep adding more sugar in small increments of about $\frac{1}{4}$ cup. Make sure that you take time to stir the mixture until it dissolves every time you add more sugar. Keep doing this until you cannot dissolve the sugar. NOTE: It will take longer for the sugar to dissolve each time you add more sugar, so you will have to be very patient when you get towards the end of the sugar. Once no more sugar will dissolve, remove it from heat and allow it to cool for at least 20 minutes.

5. Have the ADULT carefully pour the sugar solution into your jar so that it almost reaches the top (leave about $\frac{1}{2}$ an inch of free space). Place your stick-clothes pin contraption back into the glass, making sure that it is hanging straight down the middle without touching the sides.

6. Allow the jar to fully cool and put it someplace where it will not be disturbed. Let the solution sit for 3-7 days and watch your sugar crystals grow!

NOTE: If you want colored rock candy, add food coloring to your sugar water. For the best results, make the color very dark.

COLORING PAGE



This is an awesome specimen from the Ojuela mine, Mapimi, Durango, Mexico. The large, boxy crystals are wulfenite. Color them yellow. The round balls are mimetite. Color them light green. The rest is called *matrix* (that's just the rock on which the crystals are sitting). Color it rust red.