

Crystallization: ROCK CANDY CRYSTALS

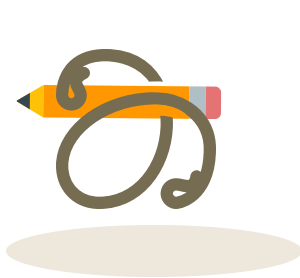


Crystallization is the forming of solid crystals from a solution.

Materials:

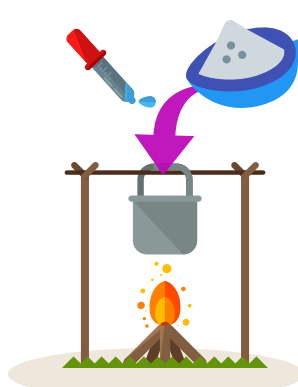
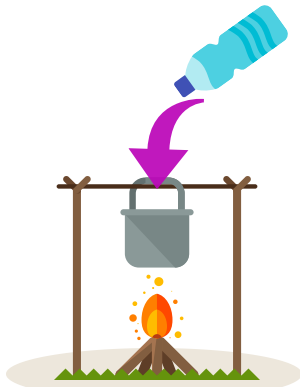
- 1 cup water
- 3 cups table sugar
- Clean glass jar
- Pencil or popsicle stick
- String or yarn
- Pan for boiling water and making the solution
- Spoon for stirring
- **Optional: food coloring**

1



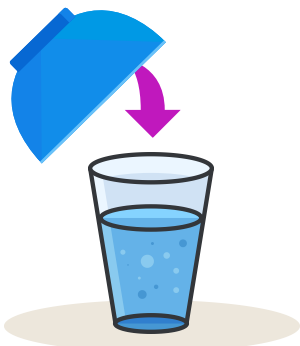
Tie string to your pencil or stick. The string should be able to hang into your jar without touching the bottom or sides.

2



Boil water in the pan (or heat in microwave). **Stir in the sugar one spoonful at a time.** Make sure there is lots of sugar in the solution, but not so much that it doesn't all dissolve into the solution. **Optional:** Add a few drops of food coloring.

3



Carefully pour the solution from the pan into your clean glass jar. Balance the pencil (with the string tied to it) on the lip of the jar and let the string dangle into the solution. Again, don't let the string hit the sides or bottom of the jar. Find a safe spot for your jar so it won't get knocked around or exposed to too much dust and debris.

4

Check on your Rock Crystals daily and record your observations of its growth in a chart like the one below (add pictures or drawings when possible).

	Day 1	Day 2	Day 3	Day 4	Day 5
Observations					

5



Whenever your Rock Crystals are the right size for your taste or when they stop growing go ahead and take them out of the jar and let them dry. Enjoy their sugary goodness!

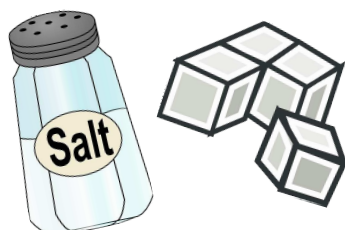
Extension

What other materials can be used to make crystals?



Sugar, Sugar. When people think of sugar, the first thing that comes to mind is usually white granulated sugar, which is the most common. However, there are different types of sugars that have different colors, textures, forms, and consistencies.

Repeat the crystal growing process with three different types of sugar: granulated sugar, brown sugar, and powdered sugar (one jar for each type). Observe the differences in the crystallization process amongst the different types of sugar. Which one makes the best rock candy?



Salty or Sweet? Salt and sugar are two common elements that can be used to grow crystals. Which element is able to grow the biggest crystal? Which grows crystals faster?

Repeat the crystal growing process with salt and sugar (one jar for each type). Observe the differences in the crystallization process amongst the two elements (speed and size). Which one makes the best crystal?