

FRISCO PUBLIC Library

Activities at Home



Rock Candy Science

Ages 5+



Did you know that candy is made using science? Rock candy is created from sugar that has turned into crystals. This fun chemistry activity will teach you how to make your own rock candy at home!

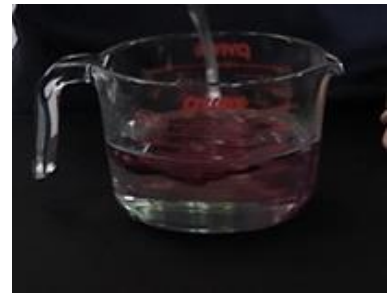
Materials you will need:

- 2-3 Cups sugar
- ½ Cup water
- Microwave safe container
- Spoon
- 2 Jars
- 2 Wooden skewers, popsicle sticks, or strings
- 2 Clothespins
- Microwave
- Oven mitts
- *Optional:* food dye

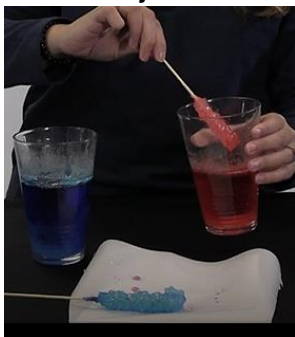
How to make your own rock candy:

1. Measure out 2 cups of sugar and ½ cup of water
2. In your microwave safe container mix your sugar and water to create a solution. It might be thick but mix it together as much as you can.
3. Place your container into the microwave and heat for approximately 2 minutes. Keep an eye on the mixture to make sure it does not boil over.

4. Have an adult remove the solution from the microwave using oven mitts. Be careful, it gets hot!
5. Stir the mixture to make sure all the sugar has dissolved. Notice the changes in color and thickness (viscosity) of the solution. It should be much clearer and thinner like the solution in our photo.
6. Add in 1 additional tablespoon of sugar and mix until it dissolves. Continue adding 1 additional tablespoon at a time until the sugar is no longer able to completely dissolve.
7. Place the solution back into the microwave for another 2 minutes. Make sure it doesn't boil over!
8. Have an adult remove the solution from the microwave using their oven mitts.
9. Stir the solution to make sure all the sugar has dissolved.
10. If you would like to make your rock candy a fun color, add in 5-7 drops of food dye. Stir it all together until it is evenly mixed into the solution.



11. Have a grown up pour the solution into the 2 jars that you will be using to grow the final candy.
12. Coat your wooden skewers, popsicle sticks, or strings in the solution and allow them to dry completely. This could take 5-10 minutes.
13. Place your wooden skewers, popsicle sticks, or strings in the clothespin and place the coated part of the wooden skewer, popsicle stick, or string into the jar with the solution.



14. Wait patiently for a week as your rock candy grows. Make sure to check it every day to watch the crystals develop.
15. After 1 week, remove your rock candy, let it dry, and enjoy your scientific treat!

Why it worked:

Mixing sugar and water formed a solution. By heating the solution, the water was able to dissolve more sugar particles than it had been able to dissolve while at room temperature. This causes the solution to become supersaturated.

When supersaturated solutions cool, they try to get rid of the excess particles by depositing them onto other materials. This leads to crystallization.

By putting a stick or string into the sugary solution, you are providing a “seed” or a place for the sugar crystals to begin forming when the excess sugar comes out of the supersaturated solution. Over time, more sugar is deposited onto crystals causing them to grow larger the longer you wait.