

Name: \_\_\_\_\_

# Homemade Rock Candy



## Materials

3 c sugar (no more)  
1 1/4 c water  
1 metal pan  
1 wooden spoon  
2 Plastic Cups  
2 Sticks  
4 Clothes Pins  
2 Hot pads  
Flavor/food coloring

1. Place 3 cups of sugar in metal pan. (Use exactly 3 level cups... no more!!!)
2. Add 1  $\frac{1}{4}$  cups water to the pan. Stir.
3. Heat on the hot plate, stirring often...until all of the sugar is dissolved and the mixture starts to boil.
4. Remove from hot plate.
5. Stir in  $\frac{1}{2}$  tsp flavor and 3 drops food coloring.
6. Dip each stick in the sugar solution and then into a cup of sugar to give it seed crystals for the crystals to cling to. Lay it on a paper towel to dry off.
7. Wait 10 minutes and then pour solution equally between the two cups. Suspend your coated stick in the cup with two clothespins so the stick isn't touching the bottom or the sides of the cup.
8. In 2-3 days, break off the top crust and pull out the stick.

## How are the sugar crystals formed?

<http://www.stevespanglerscience.com/lab/experiments/homemade-rock-candy/>

Question 1-7 can be found under the Section Header "How Does It Work?"

1, When you mixed the sugar with water and then heated and stirred the solution repeatedly, you created a \_\_\_\_\_ solution.

2. This means there are far \_\_\_\_\_ dissolved particles of sugar than the water can dissolve and hold.

3. Why does it help to stir the sugar into the hot water instead of water at room temperature?

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4. As the water cools, the huge amount of \_\_\_\_\_ \_\_\_\_\_ remains in the solution and it contains more sugar than can stay in the \_\_\_\_\_.

5. The sugar falls out of the solution as a precipitate (solid particles).

6. These connect with other sugar particles, and a \_\_\_\_\_ begins to grow.

7. What are "seed" crystals?

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Answer these questions on your own:

8. What is the definition of a crystal?

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9. Is sugar a mineral? \_\_\_\_\_ Why or why not? \_\_\_\_\_