

Making Rock Candy

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Making Rock Candy

Question: How and why does rock candy form?

Hypothesis: Something from the water, sugar, and air causes the skewers to form crystals.

Procedure:

1. Wet the skewers and sugarcoat them.
2. Fire the stove to medium heat. Add 1 cup of water and 3 cups of sugar.
3. Add flavor and color (optional)
4. Fill each jar with sugar syrup. Place the skewers in, along with something to secure the skewers.
5. Wait for 3-7 days.
6. Eat candy once it has reached the appropriate size.

As you can see here, I wetted the skewers and rolled them in sugar.



Then, with the help of my dad, I poured water in the pot and boiled it. After it was boiling, we poured in the sugar. (Here you can see my dad carefully pouring the sugar with a chopstick.)



As my dad was mixing in the sugar, I put in three drops of orange food coloring to make the sugar syrup orange.



I stirred the food coloring and the sugar syrup together many times to make sure that the sugar syrup would be orange.



After I had done that and poured in all three cups of sugar, I let the syrup cool for 25 minutes. Here is the end result of the sugar syrup.



After I poured the cooled syrup into jars, I poked holes in the plastic wrap, positioned it over the jar opening, and put the skewers through the holes. Now I have to wait for 3-7 days for the crystals to form.



Unfortunately, the crystals didn't form after we waited for a few days. Here's what we figured was wrong:

- a. the sugar syrup was too hot. That melted the sugar off the skewers.
- b. the sugar on the skewers didn't dry completely. That made the sugar slip off easily.
- c. we didn't put enough sugar in.

Using this knowledge, we have attempted to make new skewers. Now we have to wait for another 3-7 days.

Day 1:
It seems like some crystals
have formed. Some
crystallization has appeared at
the bottom of the jar.



**Day 2:
Even more crystals have
formed.
The skewers cannot touch the
ground now because of the
crystallization at the bottom of
the cup.**



**After waiting 5 days...
The crystals formed.**



Conclusion:

Rock candy forms because when sugar is added to hot water the solution becomes saturated. This is when the sugar can't be dissolved into the water anymore. When this solution has cooled, the sugar will leave its liquid form and will become a solid, growing on the skewers.