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## Lets Make Rock Candy!

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## Rock Candy Activity Plan

Name of activity:

Let's Make Rock Candy!

What topic does this activity relate to?

Chemistry and financial literacy

What should the students learn by the end of this activity?

- Students should...
  - be familiar with terms such as solubility, solute, solvent, and supersaturated solution.
  - have a basic understanding of crystallization.
  - understand the concept of delayed gratification and how they can practice this skill in their everyday lives to make smart financial decisions.

Tools/supplies needed:

- Sugar - 3 cups (4lb bag ~ \$2.50)
- Water - 1 cup
- A pot ~ \$10
- Clothespins/clips (25 pack of clothespins ~ \$3.00)
- A spoon/spatula/stirring rod ~ \$4
- A tall glass or jar ~ \$2
- Optional:
  - Food coloring ~ \$8
  - Flavoring ~ \$5

Total price:

- If buying all equipment including all kitchen and optional materials, costs about \$34.50 per experiment; if only buying the sugar, only \$2.50 per experiment

Step-by-step instructions on how to conduct the activity

**\*\*CERTAIN STEPS MAY REQUIRE ADULT SUPERVISION: HEAT WARNING WHILE USING STOVE\*\***

1. Pour one cup of water into your pot.

2. Then, pour in 3 cups of sugar. Using your spoon, spatula, or stirring rod, stir the water and sugar until they are thoroughly mixed.
3. Next, take one of your wooden skewers and dip it in water. Once it is wet, roll the skewer in sugar. This sugar will serve as the seed crystals for your rock candy. Set aside your skewer to let it dry.
4. As your skewer dries, place your pot with the sugar and water solution on the stove. Turn the stove on high, and continue to stir the solution as it heats up.
5. As the water begins to boil, continue to stir the solution until all of the sugar has dissolved.
6. Once the solution starts to boil, add in any optional food coloring or flavoring if you'd like. For my rock candy, I added in 2 drops of red food coloring.
7. After adding in your food coloring, don't forget to turn off the stove.
8. Next, have an adult help you to pour your solution into your glass or jar, leaving about an inch of empty space at the top of your glass.
9. Carefully set your jar down and let your solution cool for 10 -15 minutes.
10. Now, put your sugar-coated wooden skewer into the middle of the jar. Make sure the skewer does not touch the bottom of the jar by leaving an inch and a half of space from the tip of the skewer to the bottom of the jar. Hold the skewer in place with your clothespin or clip.
11. Finally, leave your jar on the counter and wait! It may take up to a week or potentially longer for a good amount of crystals to grow on the skewer. Track the growth of your rock candy by observing the jar every day, but be sure not to disturb the solution. If you notice that the crystals on the skewer are beginning to touch the sides or bottom of your jar, adjust the skewer accordingly.
12. Let your rock candy sit in the jar for a week or more to give the sugar crystals plenty of time to grow.
13. When you are ready to take your rock candy out of the jar, use a spoon to lightly break the hardened sugar film at the top. Then, carefully remove your skewer and place it in another glass or jar to let it drip and dry. Once it's dry, your candy is ready to eat!