

# A STEM in the Park

## Take Home Activity

# STEM

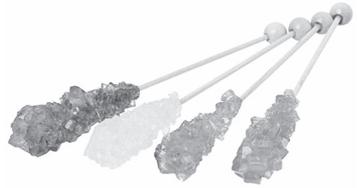
in the **PARK**™

Science, Technology, Engineering, and Mathematics

# Rock Candy Science

## What You Need

- 2 Cups water
- 4 Cups of Sugar
- A medium sauce pan
- Wooden spoon
- A heat safe glass jar (like a mason jar)
- String or wooden skewer (If using a string, you will also need a weight like a metal washer to tie to the end)
- A Pencil or Clip Clothes pins that fit across the top of the jar.



## What To Do

**NOTE:** Please have an adult help you since you will need to cook the mixture over heat. The liquid will be hot.

1. Pour water into saucepan and bring it to a rolling boil over medium heat
2. Add sugar and start stirring.
3. Continue stirring until the sugar has entirely dissolved. Be patient. This may take several minutes. Be sure to wait until most of the sugar has dissolved. You should see very few crystals of sugar in the water.
4. Take off heat and allow to cool while you prepare the jar and string or skewer.

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## ***What To Do cont.***

5. If using string
  - a. Cut String so that it is long enough to reach the bottom of the jar and still have enough to tie the end to a pencil
  - b. Tie one end of the string to a Pencil and tie the washer to the other end.
  - c. Continue to step 7 below
6. If using a skewer:
  - a. Make sure the skewer is long enough to reach the bottom of the jar.
  - b. Use clip style close pins and attach one on each side of the skewer so that they will rest on top of the jar and hold the skewer up right in the middle of the jar.
  - c. Continue to step 7 below
7. Pour the liquid carefully into the jar.
8. Dip the string or skewer into the liquid several times and take out. Allow to dry overnight on a piece of wax paper. This step is very important. This will allow the seed crystals to form. The seed crystals will be needed for the other crystals to attach to.
9. The next day, put the skewer or string into the solution in the jar and let it set for several days at room temperature. It takes patience but as the water evaporates you'll see more and more crystals form. In about 7 days you should have a nice collection of sweet crystals to eat.

## ***The Science***

Everyone loves candy and candy has been made at home for centuries. Rock Candy is one of the simplest and oldest versions of this sweet treat. Doctors used to put medicine on rock candy to hide the bitter taste of the medicine. Rock Candy is really just sugar that has been dissolved in water and allowed to reform in large crystals. When you mix the sugar into the boiling water, you create a super saturated solution meaning there is more sugar than can be dissolved into the water. Over time the liquid cools and evaporates. The sugar recrystallizes forming the rock candy.

***This activity is brought to you by Heritage Sylvania***

