

## Rock Candy

### Materials

- Piece of string (about 6 inches)
- A popsicle stick
- A paper clip
- 1 cup of water
- 2 cups of sugar
- A glass jar (mason jars work well)

### Instruction

1. Tie one end of the string to the middle of the popsicle stick.
2. Tie the other end around the paper clip.
3. Next, lay the popsicle stick across the top of a jar so that the string hangs down the middle of the jar. You want to make sure that it is not touching the bottom of the jar, but you do want it close. Also make sure that it is not touching sides of the jar either. If it hangs down too far, just roll the string around the popsicle stick a few times to shorten the string. The string will act as a seed for the crystal. Now that the string and pencil are ready remove them from the jar and set them aside.
4. This next part requires hot water so please get an adult's help.
5. Pour the water into a pan and bring it to a boil.
6. Add  $\frac{1}{4}$  cup of sugar to the boiling water, stir it until it dissolves.
7. Repeat this step until all of the sugar has been dissolved. This will take time and patience and it will take longer for the sugar to dissolve each time. Be sure you don't give up too soon. You are making a "supersaturated solution".
8. Have your adult helper carefully pour the hot sugar solution into the jar and fill it almost all of the way to the top. Go ahead and put your pencil or popsicle back on top and lower the bead and paperclip back inside of the jar, just like you practiced before. Allow the jar to cool and put it someplace where it will not be disturbed.
9. Next comes the waiting part. Check on it every day to see the crystals start to grow, but be very careful not to disturb it. The longer you wait the bigger it will get. You can also place a coffee filter or paper towel over the jar, so nothing falls in.

### How it Works

When you mixed the water and sugar you made a SUPER SATURATED SOLUTION. This means that the water could only hold the sugar if both were very hot. As the water cools the sugar "comes out" of the solution back into sugar crystals on your string. The string and paper clip act as a "seed" that they start to grow on. With some luck and patience you will have a tasty scientific treat! Enjoy!