

# GROW YOUR OWN ROCK CANDY

Explore the science of super-saturated solutions and grow yourself a tasty treat!

## What you'll need:



- Sugar (3 cups per stick)
- Water (1 cup per stick)
- Stick (e.g. chopstick or bamboo skewer)
- Saucepan
- Glass jar or drinking glass (approx 400ml)
- Clothes pegs (2 per stick)
- Paper or tea towel
- Food colouring (optional)

## What to do:



- Wet the stick with water and roll it in sugar. This is your seed. Set aside to dry for 30 min.
- Find a helpful adult. Ask them to bring 1 cup of water to boil in a saucepan. Slowly add one cup of sugar at a time, making sure that the sugar has completely dissolved (you can't see any sugar crystals left). You'll notice that it takes longer for each cup of sugar to dissolve as the mixture becomes more saturated.
- Add food dye if you would like to.
- Set aside the solution to cool for 30 min.
- Make sure the glass/jar is really clean and warm it up by running it under some warm water.
- Pour the mixture into the glass/jar.
- Place your stick in the glass/jar so it is about 2.5 cm from the bottom and keep it in place using the pegs.
- Put your glass/jar in a safe and shady place and cover it with a cloth or piece of paper.
- Your rock candy should be ready in approximately a week. The longer you leave it the larger it will grow.

## How it works:

Adding a large amount of sugar to the hot water makes a super-saturated solution. The water can only hold that much sugar because they are both hot. As the temperature cools down, the sugar 'comes out' of the solution. The sugar molecules bump into the seed crystals on the stick and join them. As the crystal grows, there are more places for new molecules to attach and the crystal keeps growing.