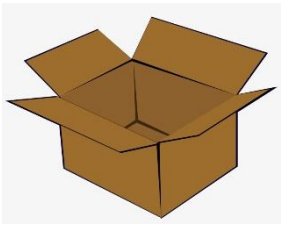
Science Activity

Giant bubbles

Time to prepare: 5 - 10 minutes



Please, stay safe and ask a grown up to supervise you

Resources/ things you need

- Water
- Washing up liquid
- Glycerin (optional)
- Plastic container for bubble mixture
- Various things with holes in them for blowing bubbles with e.g. Straws, pipe cleaners, paperclips, coat hangers, cookie cutters and cake tins with removable bottoms
- For giant bubbles – 2 wooden spoons (or other sticks), string, a metal key

What to do

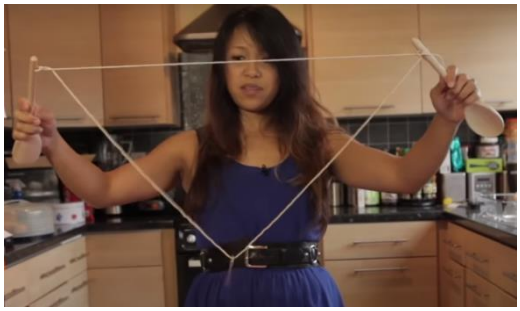
1. Make your bubble mixture with water and washing up liquid. Start with the amount of water you want and add about a tenth of that amount of washing up liquid (add a small amount of glycerin if using it). Give it a stir and then try making a bubble. If it doesn't work, add more washing up liquid until it does.
2. Blow some bubbles! Try by dipping one end of a straw into the solution, take it out and blow gently through the other end.
3. Try making bubbles using things with bigger holes e.g. a paperclip or pipe cleaner bent into a circle. You could even try with different shaped holes or with really big holes e.g. a coat hanger. Just dip the item into the mixture and blow gently.
4. To make giant bubbles, take 2 wooden spoons/ sticks and a long piece of string. Tie one end of the string around the end of one wooden spoon. Thread a metal key onto the sting a third of the way from the wooden spoon (to act as a weight). Find another third of the string from the key and tie around the second wooden spoon. Finally tie the end of the string to the first spoon to create a triangle shape. (See picture below). Dip into your mixture and enjoy the giant bubbles!

Background and the link to learning

Questions to think about:

Can you control the size of the bubbles?
What happens if you blow too hard or not hard enough?
Does the size of the hole in your bubble wand affect the size of the bubble you get?
Does the shape of the hole you blow your bubble through affect the shape of the bubble you get?

Pictures



Blowing a soap bubble is a bit like blowing up a balloon but instead of a skin of rubber, soap bubbles have a skin made out of soapy water. When you blow your bubble, you stretch the skin of soapy water and trap air inside it. If you blow a bubble up too big, the soapy water skin is stretched too thin and the force of the air pushing out from inside is too much, so it bursts.

If you have a bigger hole for your bubble, you can usually make a bigger bubble because you have more skin to fill with air.

The shape of your bubble wand does not make a difference to the shape of the bubble you get because the air inside the bubble is pushing against the skin in all directions to form a round bubble.

Link to other similar activities – Please see lava lamp, invisible ink and rainbow walking water.