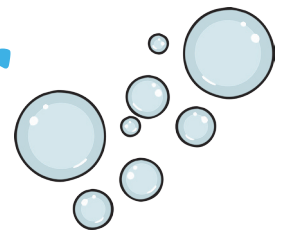


Awe and Wonder



Making Bubbles

You will need:



1 tablespoon
of glycerine



1/2 cup of
washing up liquid



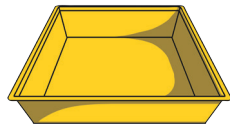
1/2 cup of
cornflour



1 tablespoon of
baking powder



6 cups of
water



trays



- string and sticks
- straws and string
- pipe cleaners

Method:

1. Stir the cornflour and water together until the cornflour is dissolved.
2. Add the washing up liquid, baking powder and glycerine.
3. Mix well, then leave the mixture to stand for an hour. Give it a stir if the cornflour seems to be settling.
4. Make the bubble wands. Either:
 - bend the end of a pipe cleaner into a loop (or another shape) and twist it together;
 - thread two straws onto a piece of string and tie the string together to make a shape. Use the straws as handles.
 - tie the string to a stick, one end at the top of the stick, and the other about halfway down.
5. Pour the cornflour mixture into the trays. Go outside and try making huge bubbles using the wands.

The Science

The glycerine in the mixture enables the bubbles to maintain a shape. The film that makes the bubble has three layers. A layer of water is sandwiched between two layers of soap molecules. Whatever shape the bubble is to start with, it will try to become a sphere. The sphere is the shape that minimizes the surface area of the bubble, which makes it the shape that requires the least amount of energy to form.