

# HOW TO MAKE A SQUARE BUBBLE

Bubbles are made from a thin film of soapy water filled with air. When you blow a bubble, the film of soapy water expands outwards to form a sphere. Whatever shape bubble wand you use you'll always get a spherical bubble.

You can make your own bubble wands made into different shapes with pipe cleaners and straws.



However, there is also a fun science trick to help you make a **square bubble** and it's much easier than you might think.

## WHY ARE BUBBLES ROUND?

The forces acting between the molecules of the bubble cause it to form the shape that encloses the most volume with the least surface area — a sphere. That is why when you try to blow a bubble through a shaped wand it still becomes a circle.

## WHY DO YOU SEE COLOURS INSIDE BUBBLES?

Light from the sun contains a range of colours all with different wave lengths. These colours are: **RED, ORANGE, YELLOW, GREEN, BLUE, INDIGO AND VIOLET**. When the light shines through the bubble film it is reflected and dispersed, which splits it into different wave lengths and showing all the colours.

# WHAT YOU NEED TO MAKE A SQUARE BUBBLE

- Materials to make a square frame – pipe cleaners or straws work well
- Bubble mix

## INSTRUCTIONS

Create a square frame like the one in the image below.



Dip your square frame into the bubble mix, so all side are covered in mix.

Carefully lift out the frame and admire your square bubble.

## WHY IS THE BUBBLE SQUARE?

The soap film sticks to all six sides of the cube, the bubbles on the side push against the middle bubble giving it corners and sides like a cube.

You should notice however that the bubble isn't a perfect square, it's still trying to become a sphere and doesn't have straight lines.