



making physics matter



Age  
3-5  
years

# Phizzi enquiry

## Bubble snakes

A Phizzi Foundation enquiry, taken from the EYFS Science Talk programme for Ogden primary partnerships.



### Key questions

- Q. What do you know about bubbles?
- Q. What might be inside a bubble? How could we find out?
- Q. Does a bigger bottle make a bigger snake?
- Q. Would it be possible to make a square bubble?

### Resources

- Standard bottle of bubbles and wand (eg from a toy shop)
  - Old water bottles (base ends trimmed)
  - Old socks, rubber bands, food colouring, dish for water and soap mix.
  - *To make the bubble blower:*  
Cut off the end of a water bottle, place a sock over the end and secure with a rubber band. Mix water and dish soap, dip in the sock and blow.
  - Make a cube structure in advance using straws and pipe cleaners to produce a square bubble with added glycerine (usually found in the supermarket baking aisle):  
<https://www.youtube.com/watch?v=8V7uEaxWh20>
- \*H&S – ensure children blow rather than inhale, hands can be placed to act as a funnel over the mouthpiece to prevent cross-contamination/reduce spread germs, alternatively, wipe mouthpiece after each use.

### Early learning goals

**C&L (40-60+) understanding:** Children answer 'how' and 'why' questions about their experiences.

**UtW (40-60+) The world:** Children know about similarities and differences in relation to places, objects, materials and living things.

### Activity: Bubble snakes

**Engage:** Blow bubbles using a standard bottle and wand. Invite the children to share their own experiences of bubbles and ask, "Where do we find bubbles? What do we need to make them?" elicit common ideas. Use key questions to gather ideas about the shape and size of bubbles – ask children to predict what happens when you change the wand shape, size or material.

**Explore:** Challenge children to make the longest bubble snake using the bottle blower – then to give you top tips. This activity introduces the concept of solid, liquid and gas in a familiar way – encourage them to think about how the water changes during the activity.

**Conclude:** Refer to the key questions and collect feedback from the activity. Demonstrate how to make a different bubble using the cube structure and invite children to make observations.

