

Double, Double Embroided in Bubbles!

Science Activity

Children experience the awe and wonder of being encased in a giant bubble.

All

SCT: Properties and uses of substances SCN 15a and 16a (all levels)

ENG/WAL: Use of everyday materials (KS1), properties and changes of materials (KS2).

NIR: The World Around us KS1 and KS2

IRL: Properties and characteristics of materials all levels.

Preparation:

The bubble mixture is approximately: 90 parts water to 9 parts washing up liquid and 1 part glycerine. The hula hoop makes a better bubble wand if wrapped with string

Add the bubble mixture to the trough or pool. Soak the hula hoop in the mixture and test out a few bubbles.

Position a child in the centre of the trough/pool with the hoop around them.

Slowly raise the hoop (this works better with somebody holding either side of the hoop) and witness a child, encompassed in a giant bubble!

What you need

- 1 x hula hoop
- string
- 1 x paddling pool or a tarpaulin and some hose can be used to create a trough for the hula hoop
- Good quality washing up liquid
- Glycerine (can be purchased from a chemist as a cough remedy)
- Water
- Measuring cylinders and beakers

The Science Bit

Tiny water molecules are all attracted to each other in a phenomenon called **surface tension**. Look closely at a rain drop or an insect skating across the top of a pool to see this in action.

Detergent reduces the surface tension making the water in effect more 'stretchy.' Glycerine makes the bubbles stronger so that they don't dry out so quickly. When air is trapped in the bubble mixture a **sphere** is the most economical shape formation and the bubble film is basically a thin layer of water molecules sandwiched between 2 layers of soap.



