Inside a Bubble

Experience the awe and wonder of being encased in a giant bubble!

All

Properties of Materials

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.

Equipment

- Hula hoop
- String
- Paddling pool or a tarpaulin and some hose can be used to create a trough for the hula hoop
- Hot water
- Good quality washing up liquid
- Glycerine (can be purchased from a chemist as a cough remedy)
- Measuring jug and tablespoon
- Plastic step or like to stand on

Activity

1. The bubble mixture is: 1L of hot water to 250ml washing up liquid and 4tbsp glycerine. It is best made a day in advance.
2. Wrap the hula hoop in string to make a better bubble wand.
3. Add the bubble mixture to the trough or pool.
4. Soak the hula hoop in the mixture and test out a few bubbles.
5. Carefully position a child in the centre of the trough/pool on a step with the hoop around them.
6. Raise the hoop quickly and steadily (this works better with somebody holding either side of the hoop) and witness a child, encompassed in a giant bubble!

Questions for Discussion

How many colours are in the bubble?
What is inside the bubble?
Can you make a bubble that isn't spherical?
Do bubbles float or sink?

Learning through Landscapes

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