

Snow – Teacher’s Instructions

For Demonstration/Class Activity



Make Sure You Have...

250 ml Beaker

Tablespoon

Instant snow powder (Steve Spangler Science - www.stevespanglerscience.com cat no. WSNO-650)

Measuring cylinder

Water

What To Do....

1. Put a spoonful of fake snow powder in a 250 ml beaker
2. Add 150 ml water from the measuring cylinder

The snow powder should absorb the water and expand to give a snow-like texture

3. The snow can be regenerated by heating in a low temperature oven (50 °C for 7 days) to drive off the water

What’s Happening?

The snow powder is a **polymer** (poly = many, mer=“bit” or “part) which is a long molecule made of lots of smaller molecules. This polymer is particularly special as it is a Super Adsorbent Polymer (SAP) and can therefore adsorb a surprising amount of water and expand to 100 times its original size. It is a good example of the sort of material that is used in babies’ nappies (why would a nappy need to be “Super Adsorbent”? Please use your imagination here.). Nappy polymers tend not to expand however as this could cause major trouble in learning how to walk!



Baby Paul – 1980

Polymers are really important in modern life as you can find them in roads, plastics and rubber to name just three. Imagine all the things that couldn't exist without these!