Viscosity

Topic

Viscosity.

Timing

20 min.

Description

Students are provided with a set of identical tubes each containing a different liquid. Students measure the time taken for a bubble to rise through the liquid. This is used to compare the viscosity of the liquids.

Apparatus and equipment (per group)

- Stopclock.

Chemicals (per group)

- Prepared sealed tubes of different liquids

The plastic tubes in which thermometers are packaged are ideal for this purpose. Seal one end of the tube using super-glue and the plastic stopper. Fill the tube with liquid leaving a measured gap of 1 cm. Seal the other end in the same way. Check for leaks before giving the tube to your students.

Liquids to choose could include:

Water, cooking oil, washing up liquid, ethanol (**Highly flammable**), propan-1,2,3-triol (glycerol), shampoo or bubble bath.

Teaching tips

Remind students to time each liquid using a consistent method – *eg* measure the time from inversion until the 'bubble first hits the top'.

Background theory

The particulate nature of matter.

Credits

Health & safety checked January 2018

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