Investigating temperature changes on evaporation of liquids – student sheet

In this experiment you will be using a thermometer strip to examine temperature changes when you put drops of liquids on the strip.

Instructions

- Put a row of drops of water along the strip. Note the shape of the drops and note whether there are any temperature changes over the next few minutes.
- Repeat using ethanol.
- Repeat using ethoxyethane.
- Record your observations in a table and try to give explanations. Bear in mind what you know about intermolecular forces when you interpret your findings.

Question

If you have been swimming and you do not dry yourself quickly after you get out of the water, you often start to feel cold. Why do you think this is?

Health, safety and technical notes

- Read our standard health and safety guidance here https://rsc.li/3LNbkfo
- Students must wear eye protection.
- Ethoxyethane (diethyl ether) and Ethanol are both highly FLAMMABLE (see CLEAPSS Hazcard <u>HC042</u>, <u>HC040a</u>).
- Ethoxyethane is also a respiratory irritant and harmful if swallowed.

