

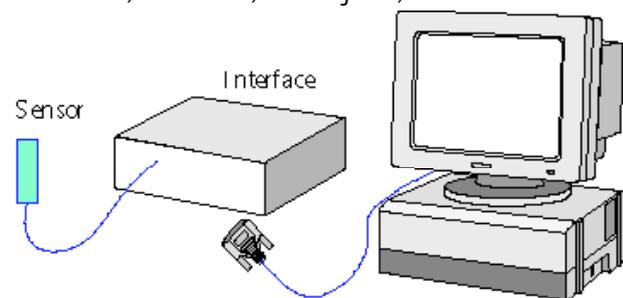
What this is about

If a cup of hot water has a higher temperature than the room, it loses heat energy to the room. In contrast, ice water, which has a lower temperature than the room, will gain heat energy from the room. Knowing the temperature of an object tells us how hot or cold something is. It allows us to predict whether it will gain or lose heat from the surroundings.

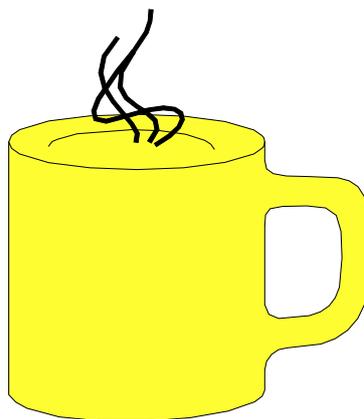
In this activity the children make predictions, collect evidence, make measurements and present their results.

You will need

Hot and cold water, boiled water (care), ice, cold drink, hot drink, warm food, a heater and a



hair dryer. Also: temperature sensor, sensor box, computer cable, sensing software.



Starting points

Children should see the temperature change as a temperature probe adjusts to their hand. They should measure the temperature of warm and cold water to gain a tacit appreciation of temperature changes.

Ask the group for examples of when taking temperatures is useful.

Which things around them do they think are hotter than themselves? Which items are cooler? Get them to record their predictions in a table or thermometer diagram.

Investigate

Get the computer to display a bar gauge and large numbers. Place the tip of the temperature probe in the item you are testing. After a minute or so - i.e. when the temperature has stabilised, record the reading. Ask the children to suggest other items to measure.

They can record their results as shown opposite or attach picture cards of hot food, cold drink on a large thermometer.

Extra

At what temperature is butter easy to spread? Place some butter in a small container inside a larger container of warm water. Measure the temperature until it softens.