

Using IT in... temperature and energy

If you were heating water should you use a big pan or a small pan?

Which cools down faster, adults or babies?

A teacher took a hot drink to her bath. She dozed off and woke up to find the drink cold but the bath was still warm. What happened?

A teacher made some tea but was called away. Should she add the milk before she goes or after she gets back?

What is the best way to make your hot drink cooler?

You can take an investigative approach to these activities, all of which compare large and small things being heated or being left to cool. There are useful ideas here: large things require more heat to warm them and small things cool faster than large things.

You can solve the 'milk in tea problem' using sensors.

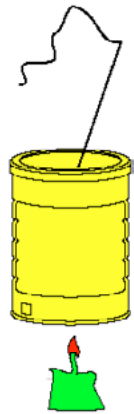
	A	B	C	D
1	Room temperature survey			
2	Room Temperature			
3	Red class			
4	Store			
5	Green class			
6	Library			

ou compare the temperatures of two cups of tea, one made with milk added straight away, the other with milk added after several minutes.

IT: Measuring

Which fuel would give you a cup of tea the quickest?

Different fuels give different amounts of energy when they burn. You can compare the heat from a candle and a spirit burner and heat a small tin of water. You can also use sensors to display the temperature changes in the heated tins. What will make this a fair test? The same amounts of water? The same size tins? Look at your graphs, which is which fuel? Which heats things up faster?



IT: Measuring