

Using IT in... temperature and energy

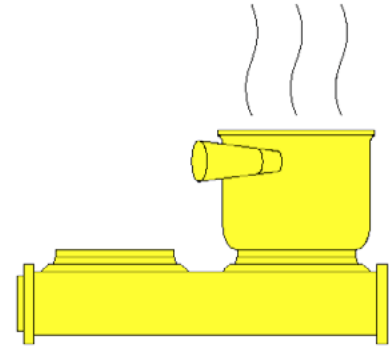
Can you identify different sugars?

You can use a **branching database program** to create a 'key' to help you identify different types of sugar. The exercise is a good way of sharpening children's observation too. You collect a set of sugars and the children use them to build up a key

	A	B	C
1	Dissolving sugar in water		
2	Temperature	How much dissolves	
3	15		
4	21		
5	33		
6	40		

on the computer. See the section on branching databases for further ideas.

IT: Handling information



What happens to the temperature if you add a pan of cold water to a pan of warm water?

Thermometers are fairly cheap and do not require too much skill to use. However, there are better ways to understand the idea of temperature changes. **Temperature sensors** linked to the computer allow you to show temperature in more graphic ways - as a rising or falling bar gauge or as a time graph on screen. These ways help children to appreciate, for example, the magnitude of the change in temperature as cold water is added to warm water. Getting back to the question - set the computer recording with a **temperature sensor** in the water. Mix the pans of water and watch the graph. What can you say about the temperature of the warm water at the start? What happened when you added the cold water? What would happen if you mixed them the other way round?

IT: Measuring

What happens to the temperature of a melting ice lolly?

You can freeze the end of a temperature probe inside a block of ice - and take it out of the freezer to record what happens to its temperature as it melts. How long does it take to melt? Does the temperature go up steadily? Or does it change all of a sudden? If you make more temperature probe lollies you might explore further: How can you slow down the melting of your ice lolly? Or, how can you speed up the melting of some frozen soup? How can you make this a fair test?

IT: Measuring

Section

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