Using IT in... materials

Can you identify this material?

You can use a **branching database** program to create a 'key' to help you identify almost any material. The exercise is a good way of sharpening children's observation skills. You collect a set of materials and the children use them to build up a key on the computer. The section on branching databases has further details of this absorbing activity.

IT: Handling information

Which material would make the best gloves for an Arctic explorer?

Children can test different materials to see which keep the heat in best. They get cups of warm water, wrap them in different materials and monitor the temperature using **temperature sensors**. Is one material as good as the next? Which material works best? What sorts of material ought to work best?

IT: Measuring

Which material is best for mopping up a spill?

How could we test fabrics to find the best one for mopping spills? How could we measure how much liquid the fabric soaks up? How can we make a fair test of this? The children might cut the different fabrics to the same size and weigh them before and after mopping up the same amount of water.

They can type their results into a **spreadsheet** and if you set this up for them, the spreadsheet will do the maths - it will work out the amount

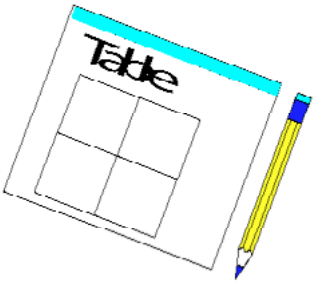
	A	B	C	D	
1	How much the plastic bends				
2	Plastic	1 weight	2 weights	3 weights	
3	Polythene				
4	Perspex				

of water soaked up. They can sort the table or draw a bar graph to compare the different materials.

IT: Handling information

What is it made from?

Get the children to make a list of objects and for each one suggest a suitable material to make it from. They can use a **word processor** to set the information in a table - it gives them the ability to work together. You might get them to add a column to the table with their reason why you this is the best material to use.



IT: Communicating

How can we identify everyday chemicals?

To build their familiarity with the behaviour of chemicals you can give the children some to test. You might set out dishes with baking powder, talc, flour, salt, sugar and cream of tartare and then ask if they could tell you what they were if the labels were lost. They can then see how they look and behave: if they dissolve in water, if they fizz in vinegar and whether they have large or small crystals. They can pool their efforts and record their findings in a **word processor** table.

To take this further, they can use a **branching database** program to make a key to identify these chemicals. This simple exercise encourages children to think 'scientifically' about the special identifying features of these chemicals. See the Branching database section for details.

IT: Communication / IT: Handling information