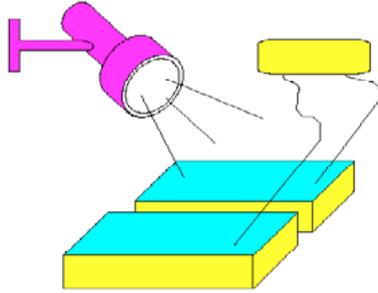


Using IT in... temperature and energy

At the seaside, does the sand or the sea warm faster?

Use two **temperature sensors** to compare the temperatures of a bowl of sand and a bowl of water left under a lamp. This shows that the sun 'gives' energy to the earth - and that some things warm up more easily than others. You will get two graph lines, one for sand and one for the sea. Which line is 'the sea'? What happens to the sand? Which gets the warmest? Would it cool faster? How could you find out?



IT: Measuring

Which material is best for garden chairs?

You can use **temperature sensors** to compare the temperatures of materials - metal, cloth or plastic placed under a lamp. What things are important to make this a good test? The distance from the lamp? Where you place the temperature sensors? How big the material samples are?

IT: Measuring

Which colour clothing is best to wear in hot weather?

Different colours absorb more or less heat and you can use **temperature sensors** to investigate this. You are unlikely to show much difference in heat gained with different coloured fabrics - you will have more success comparing 'coke' cans spray painted different colours - see next item.

IT: Measuring

Which gets hotter in the sun: a red chocolate van or a yellow chocolate van?

When the sun shines, its radiation warms things. And that includes things like chocolate vans. Why is this a problem? Do you think the colour of the van makes a difference? Which colour do you think will be coolest? A good way of finding out which colour absorbs the least heat is to spray paint 'coke' cans different colours. You then place **temperature sensors** in each and arrange them carefully under a desk lamp. The computer will show you that the darker colour warms faster. Would a silver lorry be better?

IT: Measuring

