

# Properties of Materials

**Warm-Up**

Draw lines to match the properties listed on the left with their definitions.

<b>Toughness</b>	<b>The ability to withstand scratching, abrasion or denting.</b>
<b>Hardness</b>	<b>A measure of the mass per unit volume of a material.</b>
<b>Density</b>	<b>The ability of a material to change shape instead of breaking or snapping.</b>

1 Which **one** of the following describes a material's ability to be drawn into a wire?

- A Malleability
- B Fusibility
- C Ductility
- D Electrical conductivity

[1 mark]

2 Which **one** of the following statements is **not** true?

- A A spring needs to be elastic so it can return to its original shape after being stretched.
- B An electrical wire needs to be a good electrical insulator so electricity can travel through it easily.
- C A towel needs to be absorbent to soak up moisture.
- D A climbing rope needs to be strong so that it can hold the weight of a person without breaking.

[1 mark]

3 Saucepans are often made of metal. One of the reasons for this is that metals are good thermal conductors.

a) What is meant by thermal conductivity?

.....  
 .....

[1 mark]

b) State two other general properties of metals that make them suitable for saucepans.

1. ....  
 2. ....

[2 marks]

Score:  / 5

