

The Physical Properties of some common Metals

1. Identify the pieces of metal and then complete the table below.

Metal	Chemical Symbol	Magnetic? (yes/no)	Colour
Copper			
Iron			
Zinc			
Lead			
Aluminium			

2. Compare the pieces of metal for the following properties

- a) strength _____
- b) density _____
- c) hardness _____

Strength		Density		Hardness	
Strongest		Most dense		Hardest	
Weakest		Least Dense		Softest	

3. Which of the metals conduct electricity? Can you detect any difference between how well they conduct electricity?

4. Compare the **thermal** conductivities of the metals. (Do NOT do this experiment with lead.)

Best conductor of heat	
Worst conductor of heat	

5. Describe clearly how you compared the thermal conductivities of the metals. Say why we did not do the experiment with lead.

6. All the metals used in the experiments are *elements*. What is an element ?

7. Make lists of possible uses of the these five metals *bearing in mind the properties which we have observed*. In each case state which property is relevant to the use you are describing.

8. What is an *alloy*?
