

Permanent Magnetism

Name & Set

1 What test can you perform to discover whether a substance is magnetic?

[2]

2 Are all substances magnetic? _____ [1]

3 List three magnetic materials [1.5]

(i) _____ (ii) _____ (iii) _____

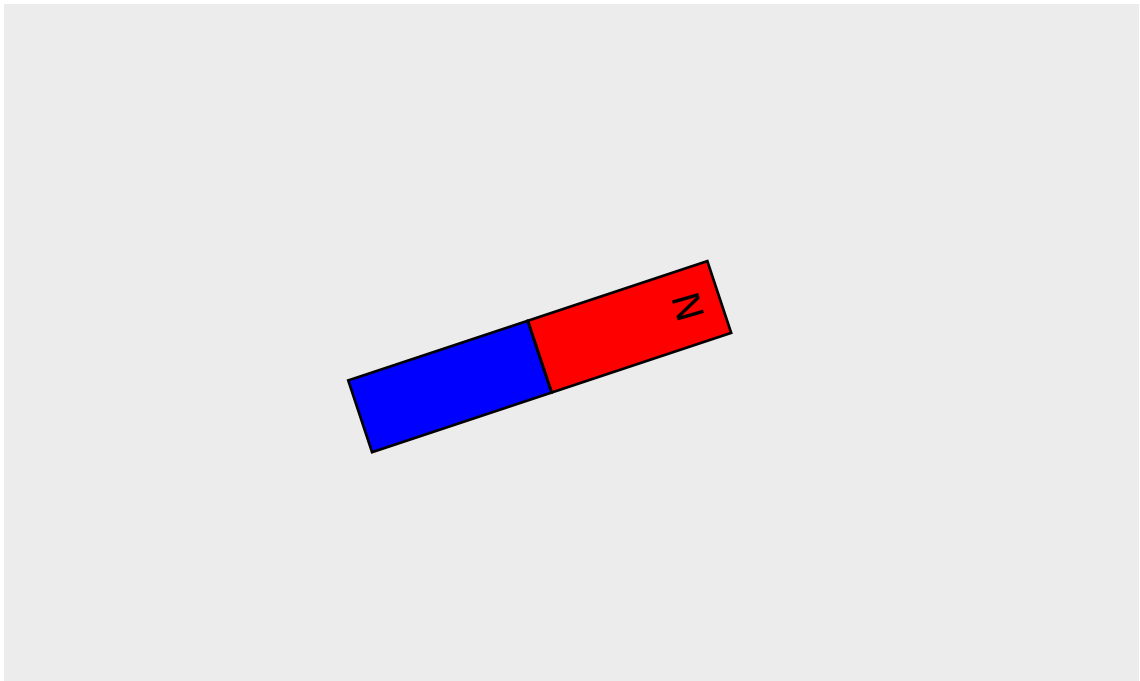
4 List three non-magnetic materials [1.5]

(i) _____ (ii) _____ (iii) _____

5 How can the shape of a magnetic field around a bar magnet be revealed?

[2]

6 Draw the shape of the magnetic field around the bar magnet shown below. [3]



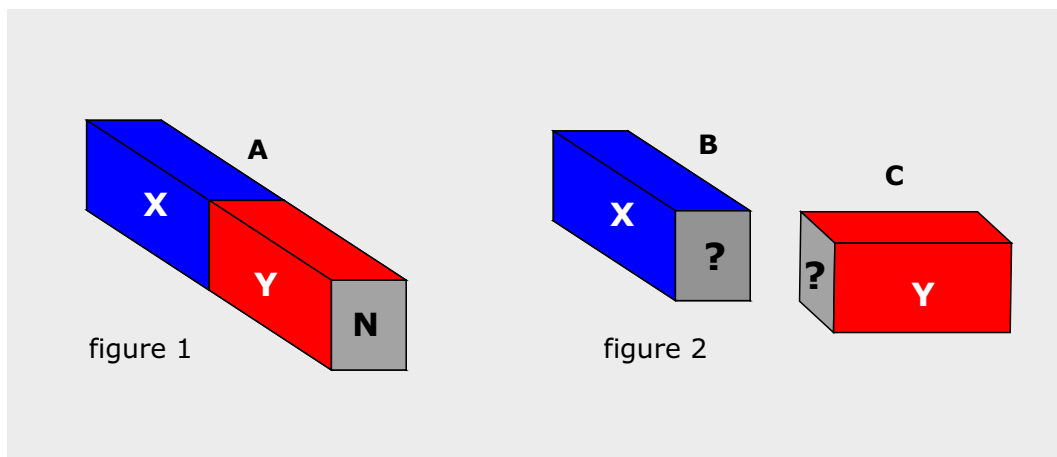
7 What test would you perform to discover whether a metal bar is a magnet or not?

[2]

8 You are asked to sort a large pile of empty cans from one another. Some are food cans (made of iron) and others are drinks cans (made of aluminium). How would you go about doing this without looking at the labels?

[3]

9 Diagram 1 shows a bar magnet (labelled A.) Its North pole is marked with the letter **N**. Diagram 2 shows the same magnet after it has been cut in two. What is the polarity of the ends marked with a question mark? Write the answer on the diagram. [2]



10 You are presented with 3 painted metal rods which are identical in appearance except that each is labelled with a letter A, B and C. You are told that one is a piece of soft iron, another is brass and the third is a permanent magnet.

What tests would you carry out to decide which bar is which?

[2]

