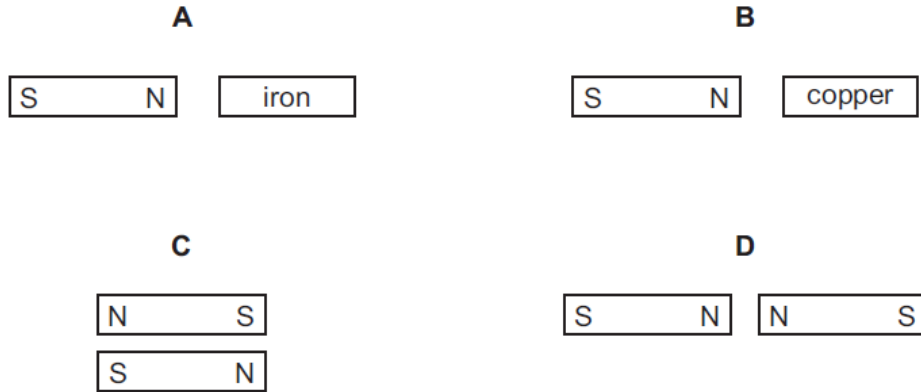


Magnetism and magnetic fields – 2023 June O Level 5054

1. June/2023/Paper_5054/11/No.25

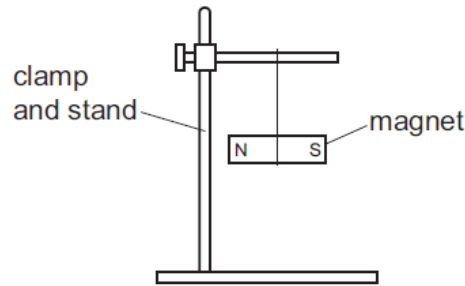
Bar magnets and various non-magnetic and demagnetised metal bars are placed in the different arrangements shown.

In which arrangement do the bars repel?



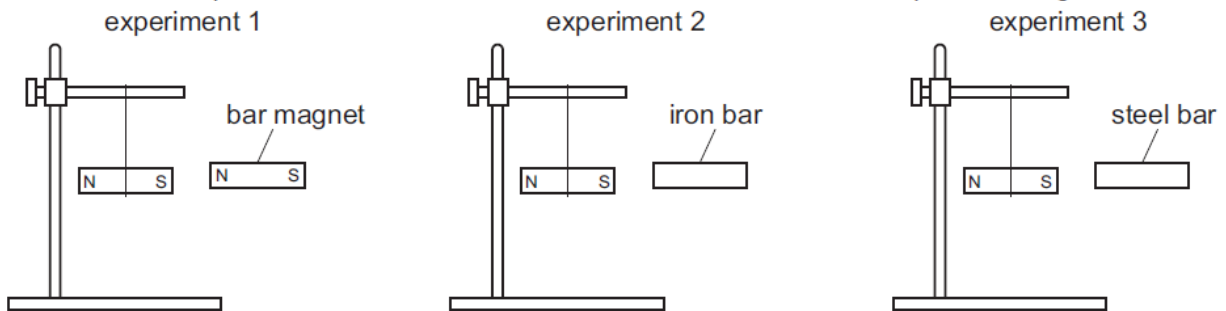
2. June/2023/Paper_5054/11/No.26

A student uses a wooden clamp and a stand to hold a freely suspended bar magnet.



The diagrams show that:

- in experiment 1, the student holds a bar magnet next to the suspended magnet
- in experiment 2, the student holds an iron bar next to the suspended magnet
- in experiment 3, the student holds a steel bar next to the suspended magnet.



In which experiments does the suspended magnet move?

- A** 1, 2 and 3 **B** 1 and 2 only **C** 1 and 3 only **D** 2 and 3 only

3. **June/2023/Paper_5054/12/No.24**

What proves that a metal bar is a permanent magnet?

- A It attracts both ends of a compass needle.
- B It attracts one end of another magnet.
- C It conducts electricity.
- D It repels one end of another magnet.

4. **June/2023/Paper_5054/12/No.25**

The diagram shows a bar magnet and four labelled arrows.

Which arrow shows the direction of the magnetic field at the point where the arrow is shown?

