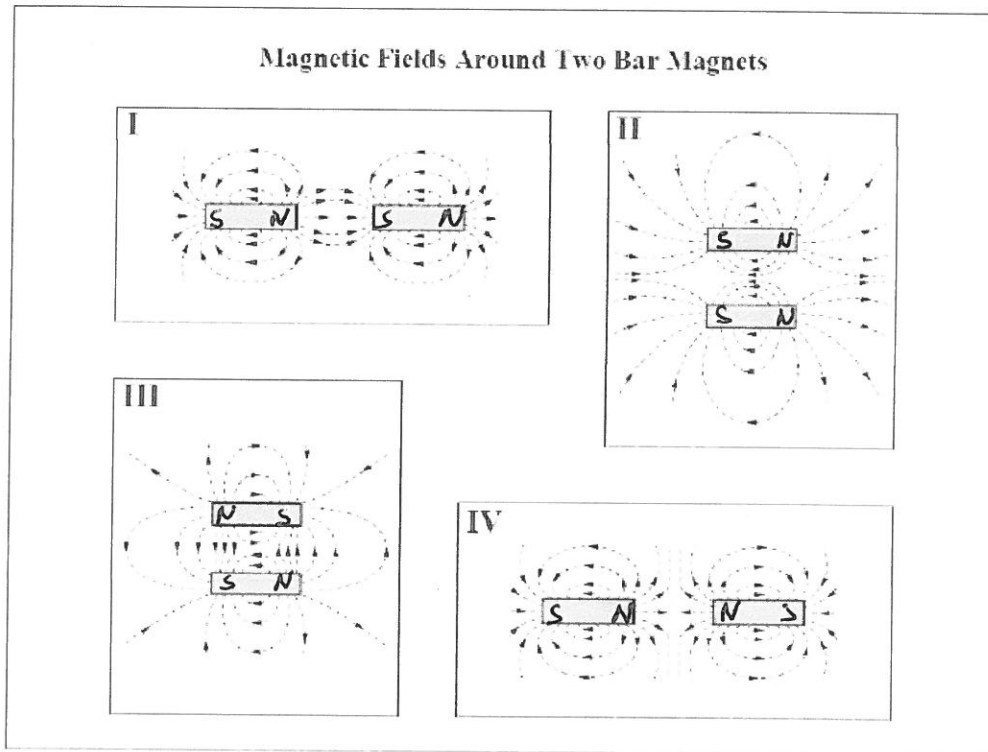


Magnetic field worksheet 2.



1. Identify North and South poles of the magnets.
2. Given the magnetic fields illustrated above, the magnets will repel in diagrams
 - A. I and II only
 - B. II and III only
 - C. I and IV only
 - D. II and IV only

Diagrams 1 and 2 below each show an electron as it enters a field. The fields are different but the electrons enter them with the same instantaneous velocity, \vec{v}_{inst} .

Diagram 1

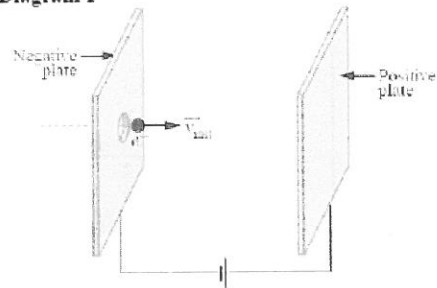
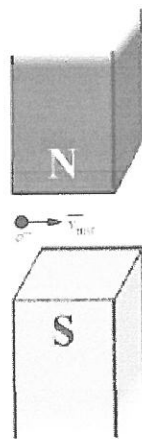


Diagram 2



Statements About the Motion of the Charged Particles as They Travel Through the Fields

- I The speed of the particle remains constant.
- II The speed of the particle increases.
- III The direction of the particle's motion remains constant.
- IV The direction of the particle's motion changes.

2.

The statements that describe the motion of the charged particle in diagram 1 are

- A. I and III
- B. I and IV
- C. II and III
- D. II and IV

3. The statements that describe the motion of the charged particle in diagram 2 are

- A. I and III
- B. I and IV
- C. II and III
- D. II and IV

4. If the source of Earth's magnetic field were a bar magnet, then the **best** diagram to show this field would be

