

CHAPTER-4 | Exploring Magnets

QUIZ
PART-02

1. Where is the magnetic strength of a bar magnet the greatest?
- At the center
 - At both ends
 - Equally everywhere
 - On one side only

(B)

Explanation : The ends (poles) show the strongest attraction, as seen by filings gathering there.

2. In the iron filings activity, what is the correct first step?
- Place a bar magnet on the filings
 - Tap the magnet gently
 - Spread iron filings on a sheet of paper
 - Observe the pattern formed

(C)

Explanation : The procedure begins by spreading filings on paper before placing the magnet and tapping.

3. What is typically observed when a bar magnet is placed on iron filings and tapped gently?
- Filings stick only at the center
 - Filings stick equally everywhere
 - Filings stick more near the ends
 - Filings stick only on one end

(C)

Explanation : More filings collect near the ends, indicating stronger magnetism at the poles.

4. What are the ends of a magnet called?
- North Pole and South Pole
 - East and West
 - Positive and Negative
 - Head and Tail

(A)

Explanation : Each magnet has two ends named the North Pole and the South Pole.

5. How many poles does a magnet have?
- One
 - Two
 - Three
 - Four

(B)

Explanation : Poles always occur in pairs—one North and one South.

6. What happens to the poles if a bar magnet is broken into two pieces?
- Only one piece has poles
 - New poles cannot form
 - The poles disappear
 - Each piece has both a North and a South pole

(D)

Explanation : Breaking a magnet produces smaller magnets, each with both poles.

7. Which statement about magnetic poles is true?
- A single magnetic pole can exist on its own
 - Poles exist only in natural magnets
 - Poles always exist in pairs
 - Poles are found only in ring magnets

(C)

Explanation : A single pole cannot exist; magnets always have both poles.

8. Which term correctly fills the blank: "_____ is maximum at the poles."
- Heat
 - Magnetic strength
 - Electric charge
 - Friction

(B)

Explanation : Magnetic strength is greatest at the poles.

9. Which observation best explains why filings cluster at the ends of a bar magnet?
- Gravity acts more at the ends
 - The ends are made of a different material
 - The magnetic field is strongest at the poles
 - Filings are repelled by the center

(C)

Explanation : Stronger magnetic field at the poles pulls more filings to the ends.

10. Which set lists topics included in the lesson overview?
- Chemistry of magnets, optics, atomic structure
 - Magnetic and non-magnetic materials; Poles of magnet; Finding directions
 - Metals and alloys; Electricity; Sound
 - Bio-magnets; Thermodynamics; Nuclear reactions

(B)

Explanation : The lesson covers material types, poles, and using magnets to find directions (among other sections).