

### **Magnetic and Non-Magnetic Materials:**

1. What are non-magnetic substances?
2. Make a list of given substances into two groups – magnetic and non-magnetic.  
Key, Wood, Glass, Alpin, Chalk, Pencil, Nail, Cup of tea, Book, Rubber, Needle, Frok.
3. Name the first magnet.
4. Name the country in which it (magnet) was discovered.
5. What are properties of magnets?
6. What are magnetic materials (substances)?
7. Write the name of some non-magnetic substances.
8. Who discovered magnet?
9. What is lodestone?
10. When was magnetite discovered?
11. What is magnetic called now?

### **Poles of Magnet:**

1. To which part of the magnet do the most of the iron filings (or pins) stick?
2. Are both poles of a magnet similar?
3. Which is the south-pole of a bar magnet?
4. Why does bar magnet always points in north-south direction?
5. Fill in the blanks:
  - (i) When a suspended magnet comes to rest, one pole always points towards the .....
  - (ii) And the other pole always points towards the .....
6. How many poles are there in a magnet?
7. To which part of the magnet do none or only a few iron fillings (or pins) stick?
8. Which is the north-pole of a bar magnet?
9. How do the shipmen find the direction even when north pointing pole star is not visible?
10. Where are south and north poles of earth's magnet?
11. What will happen to the magnet when we cut it into two pieces?
12. What happens when a pole of a bar magnet say its north-pole is marked with a chalk and suspended freely? What do you observe on rotating the bar magnet?
13. Hang a bar magnet with a thread on a stand and rotate the base of stand. What will happen?
14. Mark the north-poles of two bar magnet and bring the poles of the magnet near each other, and note down your observations in table.
15. Can we isolate north-pole or south-pole?
16. Do magnetic exist separately like charges? Explain.
17. When a bar magnet was brought close to a compass, the orientation of the needle became as shown in figure. Identify the poles on the ends of the bar magnet marked 'A' and 'B'. Explain how you arrived at your answer.
18. Where are the poles of a circular magnet? How will you find this?

**Finding Directions:**

1. How did we know that magnet is helpful to find (detect) directions?
2. Does the compass needle point in different direction?
3. In which direction does freely suspended magnet rests?
4. Why is compass needle kept in a closed glass vessel?

**Make Your Own Magnet:**

1. Can a magnet be demagnetized? How?
2. Can an ordinary vessel (lota) be magnetized?
3. How should two-bar magnets be kept?

**Attraction And Repulsion Between Magnets:**

1. When do two magnets attract each other?
2. Bhawana witnessed an interesting game at the fair. A duck was floating in a tub. When a plate containing some grains of rice was brought close to the duck, the duck moved towards the plate. But, when a plate containing some pebbles was brought close to the duck, it moved away from the plate. Explain how this could have been possible.

