

Board – CBSE

Class – 6<sup>th</sup>

Topic – Fun with Magnet

1. What are Magnets?

Ans: Magnets are pieces of iron or other materials which exhibit the properties of magnetism, i.e. the ability to attract other objects that contain iron. Compass needles and fridge magnets are some common examples of magnets.

2. Explain Magnetic and Non-Magnetic Materials.

Ans: Magnetic Materials: Materials like nickel, cobalt and iron are called magnetic materials. These materials are attracted to magnets.

Non-Magnetic Materials: Materials like rubber, plastic, cloth, glasses etc., which are not attracted to magnets, are non-magnetic materials.

3. Write any two properties of a magnet.

Ans: Two properties of magnets are:

- (i) A magnet has two poles: the North pole and the South pole.
- (ii) Like poles repel each other and unlike poles attract each other.

4. Where are poles of a bar magnet located?

Ans: Poles are located at the ends of the bar magnet just before the ends. These are the north and south poles.

5. A bar magnet has no markings to indicate its poles. So how would you find out near which end is its north pole located?

Ans: Take the bar magnet and suspend it freely with the help of a thread, the end that points towards the North Pole will be regarded as the north end of the magnet. Take a bar magnet with known/marked poles on it. Let the magnet's north pole be brought

closer to the suspended magnet at the end that is pointing towards the north if it shows repulsion, then it is confirmed.

6. Write two methods by which a magnet can lose its property.

Ans:

- I. By hammering the magnet strongly.
- II. By heating a magnet strongly and keeping it in the east-west direction.

7. State whether the following statements are true or false:

- I. A cylindrical magnet has only one pole.
- II. Natural magnets were discovered in Greece.
- III. Similar poles of a magnet repel each other.
- IV. Maximum iron filings stick in the middle of a bar magnet when it is brought near them.
- V. Bar magnets always point towards the North-South direction when suspended freely in the air.
- VI. A compass can be used to find East-West direction at any place.
- VII. Rubber is a magnetic material.

Ans: (i) False (ii) True (iii) True (iv) False (v) True (vi) True (vii) False

8. How can you separate a magnetic substance from a mixture?

Ans: By using a bar magnet, the magnetic substance is separated from the mixture.

9. At which place on a magnet, its magnetic force is maximum?

Ans: At poles, the magnetic force is maximum

10. In which direction does a suspended magnet come to rest?

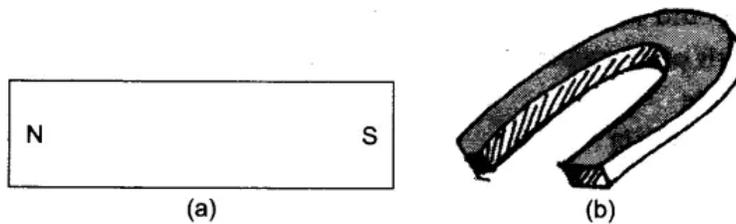
Ans: Magnet comes to rest in N-S (north-south) direction.

11. What happens when the N-pole of a magnet is brought near the N-pole of a suspended magnet?

Ans: There is repulsion between these two magnets as there is repulsion between like poles.

12. Draw the diagram of (a) Bar magnet (b) Horse-shoe magnet.

Ans:



(a) Bar magnet (b) Horse-shoe magnet