



Term -2 CLASS NOTES

CLASS: VI

DIVISION: _

SUBJECT: SCIENCE

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LS: 10. FUN WITH MAGNETS

Key words

1.Compass

2.Magnet

3.Magnetite

4.North pole

5.South pole

Pre activity

Draw a magnetic compass



Q I. Answer the following

1. It was observed that a pencil sharpener gets attached by both the poles of the magnet, although its body is made up of plastic. Name the material used to make some part of it.

Ans: A pencil sharpener contains a blade and a screw which is made up of iron , hence it gets attached by both the poles of the magnet.

2. Write the properties of magnet.

Ans: Properties of magnet are:

i) A magnet has two poles, north pole and south pole.

ii) When a magnet is suspended freely it always rest in north south direction.

iii) The force of attraction is more concentrated at the poles of a magnet.

iv) Opposite poles of magnets attract and similar poles repel.

3. Where are the poles of a bar magnet located?

Ans: The poles of a bar magnet are located at its two ends.

4. A bar magnet has no markings to indicate poles. How would you find out near which end is its North pole located?

Ans: We can find out directions by freely suspending a bar magnet. We will find that a freely suspended bar magnet always comes to rest in the North-South direction. The end of the magnet that points towards North is called the North pole and the end that points towards South is called the South pole.

5. You are given an iron strip. How will you make it into a magnet?

Ans: We can convert an iron strip into a bar magnet by the following steps,

i) Take an iron strip. Place it on the table.

ii) Take a bar magnet and place one of its poles near one edge of the iron strip.

iii) Without lifting the bar magnet, move it along the length of the iron strip, till we reach the other end.

iv) Now lift the magnet and bring the pole (the same pole we started with) to the same point of the iron strip from which we began.

v) Move the magnet again along the iron strip in the same direction as we did before.

vi) Repeat this process about 30-40 times.

vii) Bring a pin or some iron filings near the iron strip to check whether it has become a magnet. If not, continue the process for some more time.

6. How is a compass used to find direction?

Ans: After the discovery of artificial magnets, a device was developed to know the direction for the travelers in the sea called a compass. A compass is a small case of glass. A magnetised needle is pivoted inside the box. The needle can rotate freely. A compass also has a dial with directions marked on it. The compass is kept at the place where we want to know the directions. When the needle comes to rest, it indicates north-south directions. The compass is then rotated until the north and south marks on the dial are at the two ends of the needle. Usually different colours (red and blue) are used to point the ends of the needle to identify the north and the south poles.

7. Give examples of magnetic and non-magnetic substances.

Ans: Magnetic material: Iron, Cobalt, Nickel.

Non-magnetic material: Wood, Paper, Plastic

8. Write two methods by which a magnet can be demagnetised.

- Ans: (1) By hammering the magnet.
(2) By heating a magnet strongly.
(3) Keeping it in the east-west direction.
(4) Dropping them from height.

9. A given bar magnet was broken into pieces. Where will be its North and South pole?

Ans: If you cut a bar magnet into pieces, then the end labeled as North remains north and the other end formed will be a new south. Similarly, the end that was pointing south will be south pole and its opposite end will be the new north pole.

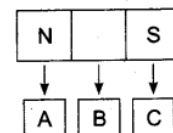


Fig. 13.13

10. How to store magnets?

Ans: The magnets become weak if they are not stored properly. To keep them safe,

i) Bar magnets are kept in pairs with their unlike poles on the same side. They must be separated by a piece of wood while two pieces of soft iron (plates) should be placed across their ends.

ii) For horse shoe magnet (U shaped), one should keep a piece of soft iron across the poles.

iii) Keep the magnets away from cassettes, mobiles, television, music system, compact disks and the computers.

Post Activity

Draw different kinds of magnets (any 4) and name them



Bar-magnet



Horseshoe magnet



Needle magnet



Cylindrical magnet



Oval shape magnet



Ring magnet