

FUN WITH MAGNETS

Discovery of magnet

Magnet was discovered by an ancient Greek shepherd; named Magnes. Once; while he was fiddling with his stick, the metallic end of the stick got stuck with the rocks. Those rocks contained the natural magnet, magnetite.

Magnet

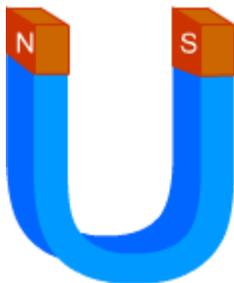
An object which attracts magnetic materials; like iron, cobalt and nickel; is called magnet.

Natural Magnet: Magnet which is found naturally is called natural magnet.

Artificial Magnet: Magnet which is made by humans is called artificial magnet.

Types of Magnet

Magnets are made in different shapes and they are named according to the shape, e.g. bar magnet, dumb-bell shaped magnet, horse-shoe magnet, cylindrical magnet, etc.



Magnetic Materials: Materials which are attracted towards a magnet are called magnetic materials, e.g. iron, nickel and cobalt.

Non-magnetic Materials: Materials which are not attracted towards a magnet are called non-magnetic materials, e.g. aluminium, zinc, wood, rubber, etc.

Poles of Magnet

A magnet has two poles, north pole and south pole. The magnetic power is concentrated at the geometric ends of a magnet. When a bar magnet is suspended to move freely, it always points in the north-south direction. The north pole of the magnet points towards the north and the south pole of the magnet points towards the south.

Interaction between poles of magnet

- Like poles repel each other. This means when north pole of a magnet is brought near the north pole of another magnet, both repel each other. The same holds true for the south poles of two magnets
- Unlike poles attract each other. This means when north pole of a magnet is brought near the south pole of another magnet, both attract each other.

Finding directions using magnet

The end of the magnet that points towards north is called its North Pole. The other end that points towards south is called South Pole.

Magnetic compass is a device developed based on the above property. It is composed of a small box with a glass top. The magnetic needle is placed on a pivot around which it can rotate freely.

Making Your Own Magnet

With the help of a permanent magnet you can change a piece of iron into a magnet. For this, you need to place the iron piece on a flat surface. Then rub the permanent magnet on the iron piece for many times. Your hand movement should always be in the same direction, while doing this. After some time, the iron piece would attain magnetic property.

Storing a magnet

- Bar magnets should be kept in pairs. Their unlike poles should be kept on the same side. A wooden piece must be placed between them. A piece of soft iron should be placed at their ends.
- For storing a horse-shoe magnet, you should place a piece of iron across the two poles.
- Magnets should be kept away from speakers, CD, television, music system, computer, etc.