

Introduction of Magnets and its Types



Magnetism has been a source of curiosity for ages. Magnets are commonly found in science laboratories, toys and in the magnetic stickers that we stick to refrigerators and steel almirahs. The earth itself acts as a magnet.

Magnet

A mineral was discovered in the town of magnesia which was found to have a wondrous property. It could attract pieces of iron towards it. This mineral is called magnetite. Further it was found that thin strips of magnetite always align themselves in a particular direction when suspended freely in air. It was found that magnetite is mainly composed of oxides of iron (Fe_3O_4). Magnetite (Fe_3O_4) is the world's first magnet.

A substance which attracts small pieces of iron, nickel, cobalt and steel and points in North-South direction when freely suspended (or hanged freely) is known as a magnet.



Types of Magnet

(A) Natural Magnet: A magnet which occurs naturally and is not made by any artificial means is called a natural magnet. Natural magnets are irregular in shape, moreover they are weak magnets. The natural magnet made from magnetite, which is an ore of iron [Fe_3O_4].

Natural Magnet



Magnetite

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(B) Artificial Magnet: A substance to which properties of the natural magnet are imparted by artificial means is called artificial magnet. The artificial magnets are made from iron, steel, cobalt and nickel.

Artificial Magnet



Horseshoe Magnet



Example: An iron bar can be made a magnet by rubbing it with a natural magnet. Such a magnet is known as **man-made or artificial magnet**.

Artificial magnets are of different shapes. A bar magnet (i.e. rectangular in shape) and U-shaped magnet are common examples of artificial magnets.