

Name : \_\_\_\_\_

# Magnetism Vocabulary

## Attraction

A force under the influence of which objects tend to move towards each other.

## Repulsion

A force under the influence of which objects tend to move away from each other.

## Compass

An instrument that determines the direction by means of a freely rotating magnetic needle pointing towards the north.

## Magnet

Magnets are rocks or metals that create an invisible magnetic field around themselves and attract other magnets and a few metals.

## Magnetic poles

The two ends of a magnet where the magnetic field is the strongest. All magnets have two poles, the north and the south.

## North Pole

The end of the magnet that is attracted to the Earth's magnetic north pole.

## South Pole

The end of the magnet that is attracted to the Earth's magnetic south pole.

## Magnetic

A substance that is capable of being attracted by a magnet is called a magnetic substance.

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## **Magnetic force**

The force that arises due to the motion of electrically charged particles within the magnetic field that causes magnets to attract or repel.

## **Magnetic field**

An invisible area of magnetism around a magnet is called magnetic field.

## **Magnetism**

The physical force that makes two metal objects pull towards each other or push each other apart is called magnetism.

## **Magnetization**

The process that makes a substance magnetic temporarily or permanently.

## **Permanent magnet**

An object made from a material that is magnetized and creates its own persistent magnetic field.

## **Induced magnet**

A temporary magnet that is made from a magnetic object placed in a magnetic field. The object loses its magnetism when moved out of the magnetic field.

## **Magnetic lines of force**

Magnetic lines of force are imaginary curved lines used to represent a magnetic field. The number of lines indicates the magnetic field strength and the arrows on the lines show the direction and point from north to south.

## **Diamagnetic**

Substances that are weakly magnetized when placed in an external magnetic field, in the direction opposite to the applied magnetic field are called diamagnetic substances.

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## **Electromagnet**

A magnet in which an iron core is magnetized by passing electricity through a coil that wraps around it.

## **Ferromagnetic**

Substances which are strongly magnetized in an external magnetic field, in the same direction as the applied magnetic field and retain the magnetism even after the removal of the external magnetic field.

## **paramagnetic**

Substances that are weakly magnetized when placed in an external magnetic field, in the same direction as the applied magnetic field are called paramagnetic substances.

## **Solenoid**

A solenoid is a coil of wire wrapped around an iron core that becomes a magnet when current passes through the coil.

## **Magnetic flux**

The measure of the strength of a magnetic field around a magnet based on the total number of magnetic lines of force that pass through a specific area.

## **Magnetic domain**

A region within a magnetic material where the atoms are grouped with their magnetic fields aligned in the same direction.

## **Magnetic induction**

The process by which an object or material is magnetized by an external magnetic field.

## **Field magnet**

A magnet used to produce a magnetic field in a device. It may be a permanent magnet or an electromagnet. It is referred to as a field coil if the field magnet used is an electromagnet.