

# St. Andrews Scots School

Adjacent Navniti Apartment , Patparganj, Delhi-110092

Session: 2025-2026

Class: VI

Subject: Science

Chapter: Exploring Magnets

## CHECKPOINT 1.

1. Magnetite, Lodestone      2. Magnetic      3. Magnet      4. Magnesia

## CHECKPOINT 2.

1. True      2. True      3. False      4. True

## CHECKPOINT 3.

1. Directive Property      2. North Pole      3. Magnetic Compass      4. Keepers

## PRACTICE TIME

### A. Tick the correct answers.

1. (d)      2. (d)      3. (c)      4. (a)      5. (d)

### B. Assertion and Reason.

1. (c)      2. (a)      3. (d)      4. (b)      5. (a)

### C. Match the columns.

1. (c)      2. (d)      3. (e)      4. (b)      5. (a)

### D. Very short answer type questions.

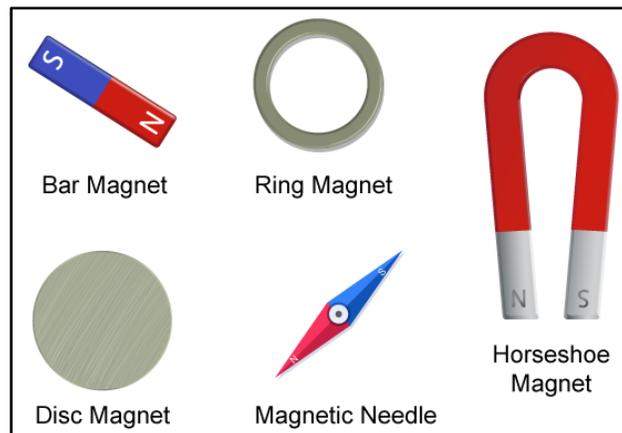
1. A magnet is a substance that has the property of attracting objects made of iron, nickel, cobalt and their alloys
2. Materials such as iron, nickel, cobalt and their alloys are attracted by the magnet. Such materials are called magnetic materials
3. Materials such as wood, plastic, rubber, paper, brass, cotton, glass, copper, Aluminium, stainless steel, etc., are not attracted by the magnet. They are called nonmagnetic materials.



4. A freely suspended magnet rests in the north-south direction.
5. When like poles of two magnets are brought close to each other, the two magnets repel each other.
6. When a magnet loses its power, it is called demagnetised.

#### E. Short answer type questions.

1. Magnets made from pieces of iron are known as artificial magnets. Artificial magnets are made in rectangular, cylindrical, dumb bell shape horseshoe shape, ring shape and needle shape.



2. The poles of a magnet always exist in a pair. If we break a magnet into two parts, each part will behave like a magnet, i.e., it will again have a north pole and a south pole.
3. When the magnetic compass is placed on a horizontal surface and the needle is allowed to rest, the needle aligns itself along the north-south direction. The north pole of needle points towards the north and the south pole points towards the south. So, the directions can be located easily with the help of a magnetic compass.
4. Precautions to be taken while handling magnets are:
  - Never hit or beat a magnet with anything.
  - Do not throw a magnet or let it fall on the floor.
  - Do not heat a magnet.
5. A magnet loses its power when it is dropped frequently or hammered or brought in contact with other magnets repeatedly or heated to a certain temperature.
6. The attractive property of a magnet is used to separate magnetic materials from nonmagnetic materials such as removing iron pieces from junk, adulteration of iron dust from tea leaves, etc.

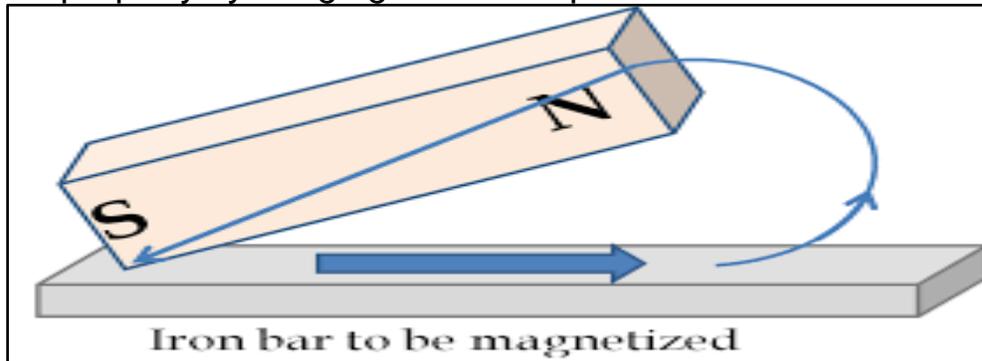


## F. Long answer Type Questions

1. An iron bar can be magnetized by following procedure:

Lay an iron bar on a table. Hold a bar magnet vertically at one end of the iron bar, so that one of the poles of the magnet (say N-pole) touches the iron bar. Rub the magnet along the length of the iron bar, till you reach its other end. Lift the magnet from the other end vertically and bring it back in the direction, so that the same pole touches the iron bar again.

Repeat the process for at least 40–50 times, until the iron bar gets magnetized. Now, test it for magnetic property by bringing small iron pins near it.



2. Repulsion is the sure test of magnetism. It can be proved by performing the following activity:

Suspend a bar magnet and bring any end of the object to be tested close to both the poles of the suspended magnet one-by-one.

If the end of the object is attracted by both the poles, then it is simply a magnetic substance and if the end of the object is repelled by one of the poles of the suspended magnet, then it is a magnet.



3. A magnetic compass consists of a small and lightweight magnetic needle pivoted at its mid-point so that it can freely rotate in a horizontal plane. The needle is enclosed in a flat circular Aluminium box with a glass plate at the top. At the base of the box, the four main directions in the north (N), south (S), east (E) and west (W) and four sub directions, north-east (N-E), north-west (N-W), south-east (S-E) and south-west (S-W) are marked. Generally, the north pole of the magnetic needle is painted red and the south pole blue or black.

**Uses:** A magnetic compass is used by sailors, navigators, pilots, soldiers, mountaineers, etc., to find the directions. It is also used by students in performing scientific experiments.



4. The power of a magnet is concentrated at its poles. It can be shown by the following activity:  
Spread some iron fillings on a sheet of paper. Hold a bar magnet horizontally from its center and move it on the iron dust. Now, Lift the magnet. Maximum iron fillings are clinging to the magnet at its poles. This is because the power of a magnet is concentrated at its poles. This property of the magnet helps in finding the direction of poles of differently shaped magnets.
5. The magnetic behaviour of the earth is due to the movement of magnetic materials (iron and nickel) found in the molten state in the earth's core.

## G. HOTS questions

1. We can use a magnet to find iron pins and screws easily because these are made of magnetic material.
2. A freely suspended bar magnet rests in a north-south direction. The pole of bar magnet pointing in the north direction is North pole and that which points in south direction is South pole.



3. Polarities of ends 1 to 7 are as follows:

1 – South 2 – North 3 – South 4 – North 5 – South 6 – North 7 – South

4. On a ship, a magnetic compass is used to find the directions. Yes, a magnetic compass can be useful to everyone because it helps us to find directions at some unknown place.

