

LAB 15: MAGNETIC FIELDS

AIM: To determine the magnetic field of a bar magnet

APPARATUS & MATERIALS:

bar magnet paper
compass wooden board

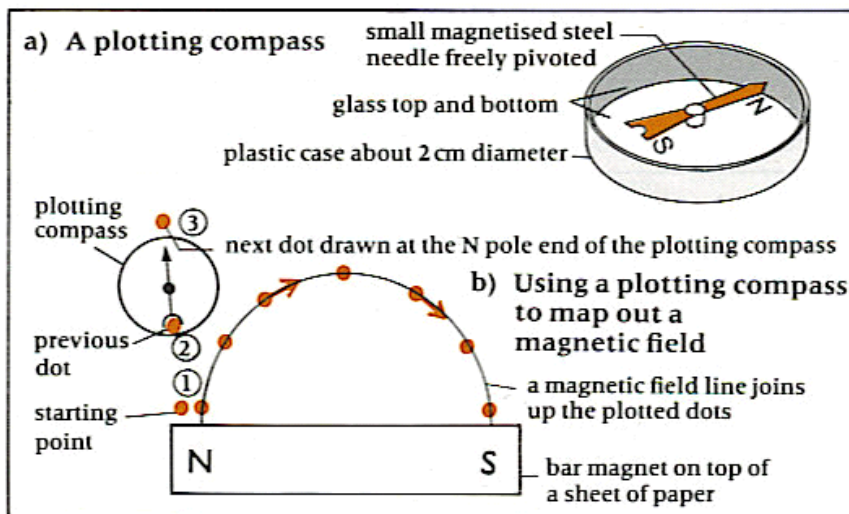


Diagram: Apparatus for the magnetic field of a bar magnet

METHOD:

- Place a bar magnet on a sheet of paper and draw around it.
- Make a dot on the paper near the North Pole of the magnet (as shown in the diagram at **dot 1**).
- Position the plotting compass so that the curved South Pole end of its needle surrounds the dot.
- Make the next **dot 2** near the North Pole end of the plotting compass needle.
- Now move the plotting compass so that its South Pole is over the **dot 2** and mark another **dot 3** near the North Pole.
- Continue to plot the points in the direction indicated by the North Pole of the compass needle until you reach the South Pole end of the magnet.
- Join up the dots to show the magnetic field lines.
- Repeat the method above and hence construct a number of magnet field lines around the magnet.

THEORY:

- Define the magnetic field and the direction of the magnetic field.

OBSERVATIONS / RESULTS:

- Fasten trace into SBA book. (a fully labelled diagram)

CONCLUSION:

- The magnetic field of a bar magnet is shown in the observations.