## Plotting and displaying magnetic fields

This method produces a permanent record of a magnetic field.

Arrange the magnet(s) on a sheet of paper. Place the plotting-compass near the north pole of the magnet and mark the position of the ends of the compass needle. Move the compass so that the other end of the needle is on the dot and mark the new position of the opposite end of the needle. Repeat the process and join the series of dots as shown. Mark the direction of the field line using an arrow. Other lines are plotted in the same way.

A plotting-compass is a small compass needle mounted in a plastic case with transparent discs on the top and bottom.