

Your teacher may watch to see if you can:

- make careful and accurate observations.

Introduction

When two magnets are close to each other, their magnetic fields affect each other. You can investigate the shape and direction of the fields using a plotting compass.

You are going to investigate this arrangement first:



Prediction

- 1 Copy the diagram into your book. Leave some space above and below it.
- 2 Predict what the field will look like between the two magnets. Remember that the direction of the magnetic field is the direction that a north pole would take. Draw lines on your diagram to show your prediction.

Method

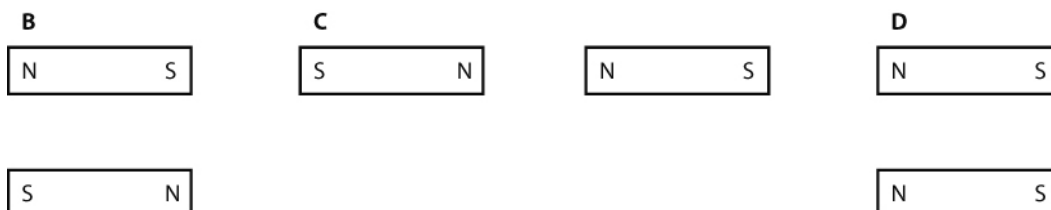
Apparatus

- two bar magnets
- paper and pencil
- plotting compass

Place the magnets on a piece of paper and draw around them. Draw some dots around the end of the magnet marked X on the diagram, and use the plotting compass to plot the magnetic field.

Results

- 3 Make another copy of the diagram in your book, and this time draw the results you obtained with the plotting compass.
- 4 How accurate was your prediction?
- 5 Now do the same thing with these three arrangements (**B**, **C** and **D**). Try to predict what you will find each time, then check your prediction using a plotting compass.



I can...

- make predictions using scientific ideas
- test my predictions.