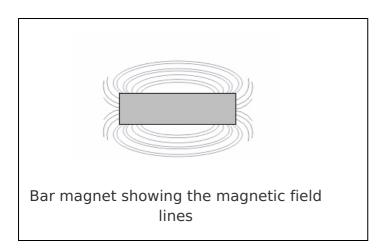
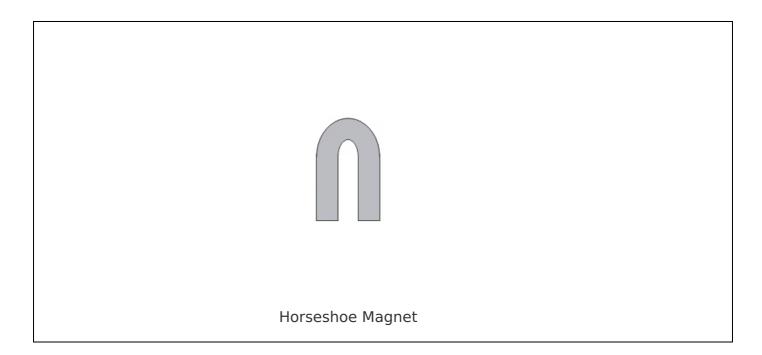
## Investigating magnetic fields

a) Aim: To investigate the magnetic field around a horseshoe magnet. The magnetic field can be shown by using lines that represent the force of the magnet. The force can be seen when iron filings are held over a magnet. An example is shown below.



Place the horseshoe magnet onto a flat surface. Place a sheet of paper over it so it sits on the top of the magnet. Then sprinkle some iron filings onto the paper. Draw in the magnetic field lines you see onto the diagram below.



fa ir	_	ace the sheet paper.	t of paper over	end about 4 cm apart. Have the two magnets and then e diagram below.	•
	N	S	S	N	
ii)Repeat part i), except have the poles that are not alike facing each other.  Draw the magnetic field lines you see onto the diagram below.					
	N	S	N	S	
c) Describe what is happening when the two South Poles are facing each other.					
d) Des	scribe what is hap	pening when	the South and	the North Pole face each o	ther.
-	plain what would h ed each other.	appen to the	magnetic field	d lines if the two North Pole	s of the magnet
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b)Aim: To investigate the magnetic field around two magnets