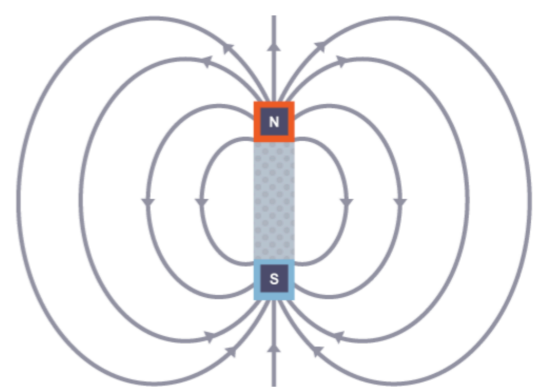


# PHYSICS TRILOGY – YEAR 9 – MAGNETS & ELECTROMAGNETS

A MAGNETISM		
1	Magnetic	A material that is affected by magnetic forces.
2	Magnetic Materials	The common magnetic elements are Iron, Nickel, Cobalt. Steel is also magnetic as it an alloy containing iron.
3	Permanent Magnets	A piece of magnetic material that is permanently magnetised, so that it produces its own magnetic field.
4	Magnetic Field	The region around a magnet where a force act on another magnet or on a magnetic material.
5	Induced Magnets	A piece of magnetic material that is magnetised by the magnetic field from another magnet. The magnetism is quickly lost when the magnetic field is removed.

B MAGNETIC FIELDS		
1	Detecting Magnetic Fields – iron filings	A magnetic field causes iron filings to attract to each other and line up along the magnetic field lines.
2	Detecting Magnetic Fields – plotting compass	A magnetic field causes compass to rotate, pointing along the direction of the magnetic field lines.
3	Bar magnet	

C ELECTROMAGNETISM		
1	Current	When a current flows in a wire, it creates a circular magnetic field around the wire.
2	Solenoid	A wire coiled into a spiral (like a spring) which creates a magnetic field similar to a bar magnet.
3	Electromagnet	A solenoid with an magnetic core, which increases the strength of the magnetic field.