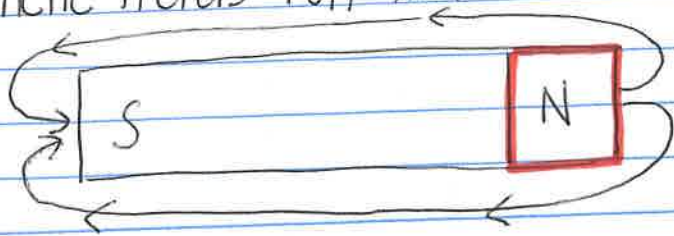


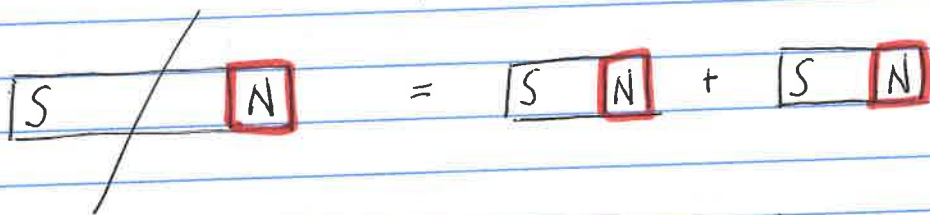
Magnetism

Magnetic fields run from N \rightarrow S



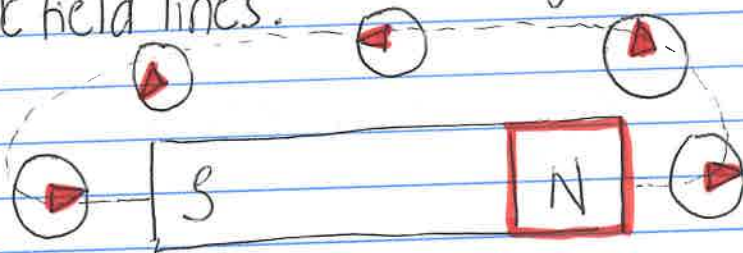
As the distance from the magnet increases, the strength of the magnetic field decreases.

Like / same poles repel. Opposite poles attract.



Cut a magnet in half = 2 smaller magnets.
No monopole exists.

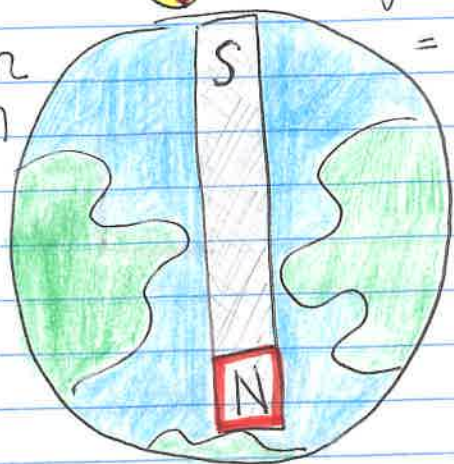
A compass needle will be tangent to the magnetic field lines.



Four most common naturally occurring magnetic elements:

iron (Fe), cobalt (Co), nickel (Ni)
+ gadolinium (Gd)

Molten iron circulating in the Earth's outer core creates a magnetic field.



South geographic pole
= north magnetic pole

Relationship between a magnetic field and a current. (in a current carrying wire)

- 1) A current carrying wire produces a magnetic field.
- 2) A changing magnetic field (rotating or moving) induces a current.