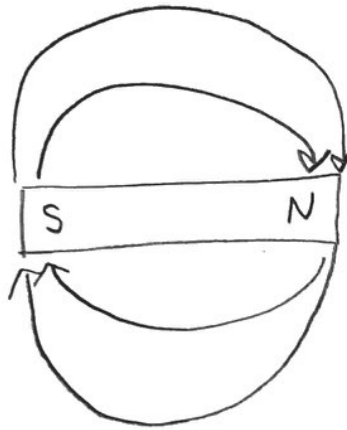


Magnets:



- North pole of magnet will always face south pole of compass.
- South pole of magnet will always face north pole of compass.

Electromagnets:

- current running on wire - electrons moving
 - ↳ have charge - creates a magnetic field around the wire.
- If we up the voltage or current, we get a stronger magnetic field.
- If we increase the resistance, the magnetic field decreases.
- To make stronger magnetic field, wrap the wire into coils.
Each loop has its own magnetic field → increases magnetic field.
- Solenoid - a bunch of wire wrapped into a coil creating a big magnetic field.
ex: car starter.

- current flows through and because there is a magnetic field it causes the motor to turn over.

- Solenoid placed around magnet can cause magnet to rotate ← current flowing through.

↳ this is an electric motor

↳ changes electrical energy into kinetic energy

- The opposite of a solenoid is a generator. -

changes kinetic energy into electrical energy.