

Alternating Current	Device that measures current when connected in series in a circuit	The rate of flow of charge per second	Device that stores electric charge on two oppositely charged plates
A.C.	Ammeter	Ampere	Capacitor
Positive to negative terminal (opposites)	When a capacitor gains a charge causing a potential difference across its plates	Conducting path from to positive terminal of a power source to the negative terminal of a power source	Diagram using symbols to represent an electrical circuit
Cell	Charging	Circuit	Circuit diagram
Turns of electric wire around an object(e.g. iron core)	Current flows from positive to negative terminal	The unit of charge	Proportion by which the capacitance increases when an insulator is placed between the plates of a capacitor
Coil	Conventional Current	Coulomb	Dielectric constant
When a capacitor loses a charge causing a potential difference across its plates	Size of electric field	Voltage across a power supply when no current is drawn	Combination of resistance and reactance in an AC circuit $Z^2 = \sqrt{R^2 + (X_L - X_C)^2}$
Discharging	Electric field strength	EMF	Impedance

Produces electricity from the rotation of a coil inside a magnetic field	The effect in a circuit when a changing current causes an opposing induced voltage	Voltage created by the combination of movement and a magnetic field	Conversion of kinetic energy to electrical energy using a magnetic field
Generator	Inductance	Induced voltage	Induction
Produces opposing voltage when current-magnetic field changes	Resistance inside a battery/power supply	Total current entering a junction = total current leaving a junction	The total of all the voltages in a closed loop is equal to zero
Inductor	Internal resistance	Kirchhoff's current law	Kirchhoff's voltage law
The direction of the induced current creates a force that opposes the change that produces it	Region where ferromagnetic materials (iron, cobalt, nickel) and magnets experience a force	Magnetic field strength multiplied by area	Amount of flux density in a fixed area
Lenz's law	Magnetic field	Magnetic flux	Magnetic flux density
Changing current in one coil induces a voltage in another coil	Proportion by which the capacitance increases when an insulator is placed between the plates of a capacitor	Anti- clockwise rotating vector used to help draw sine graphs	Difference in voltage between two points
Mutual Inductance	Permittivity	Phasor	Potential Difference

Ability of a capacitor or inductor to limit current in an A.C. circuit	Ability to resist current	Frequency which produces maximum current in a RCL circuit (because $X_L = X_C$)	Ends of a battery that a circuit is connected to
Reactance	Resistance	Resonant frequency	Terminals
Unit of Magnetic field strength	Time for voltage/current to change by 63% (Capacitor or Inductor)	Uses mutual inductance between two coils to change the voltage and current	An electric field of constant strength where field lines are parallel and equally spaced
Tesla	Time constant	Transformer	Uniform electric field
Measure of energy per unit charge (W/Q)	Graphical representation of voltage against current for a particular component	Device that measures voltage and is connected in parallel to a component	
Voltage	Voltage - current characteristics	Voltmeter	