**FUNDAMENTALS OF ELECTRICITY**

In electricals -> usage of normal switch

In electronics -> usage of transistors (logic gates)

Electricity:

1. Static electricity – DC – the state of electrons in the battery when not in use
2. Dynamic electricity – flow of electrons in the conductor when connected to a load

BASIC 5 FUNDAMENTALS IN ELECTRICITY:

1. VOLTAGE:

Potential difference b/w 2 points – unit: volt – measured using voltmeter – has to be connected in parallel to the component.

1 volt = 6.052 x 10^18 electrons

1. CURRENT:

flow of electrons in the conductor when the loop is closed – unit is ampere - measured using ammeter – has to be connected in series with the component

1 ampere = 3.052 x 10^18 electrons per second

1. RESISTANCE:

Resists or opposes the flow of current or electrons – unit is ohm

1. POWER:

It is the effect of flow of electrons – actual flow of electron is very slow – rather than the flow of the actual electrons the effect it creates is responsible for the sudden reaction produced in the electrical components – P = VI – unit is watt – flow of electros will be 1/300000 per sec

1. ENERGY:

E = Vit or Pt – unit is watt per sec or kilo watt hour