

STRUCTURE OF THE ATOM

- Atoms and molecules are the fundamental building block of matter.
- Different kind of element is formed due to different atoms constituting them.
- Atoms can be further divided into sub atomic particles.
- There are three sub-atomic particles of an atom are :

Electrons

Protons

Neutrons

➔ Charged particles in matters

- * When we rub two objects together then they get electrically charged.

- "An atom consists of a positively charged sphere and the electrons are embedded in it .
Negative and positive charge are equal in magnitude and makes the atom neutral as a whole."
This was proposed by JJ Thomson.

➔ **Rutherford Model of Atom**

- In this model, the scientist experimented by dropping **Alpha** particles on a thin gold foil .
- Gold foil was selected because it can be very thin layer which was about **1000** atoms thick .
- Alpha particles are doubly charged , **Helium** ions since they have an atomic mass of **4** while moving fast they will have considerable amount of energy and it can be expected that the Alpha particles will be deflected by the sub atomic particles in Gold atoms .

* **Observations of the Experiment :**