

Greeks	Philosophers who first proposed that matter was composed of minute particles
Diffusion	The spreading out of particles through random motion from regions of higher concentration to regions of lower concentration
Dalton	Scientist who proposed the Atomic Theory
Atomic Theory	1. All matter is made up of very small particles called atoms. 2. Atoms are indivisible. 3. Atoms cannot be created or destroyed
Crookes	Scientist who investigated cathode rays in vacuum tubes

Cathode rays

Streams of negatively charged particles called electrons

Properties of cathode rays

1. Form shadows. 2. Cause glass to fluoresce. 3. Cause a paddle wheel to turn. 4. Consist of charged particles.

Stoney

Scientist who named the electron

Thomson

Scientist who showed that electrons are negatively charged and measured the  $e/m$  of the electron

Millikan

Scientist who measured the charge on the electron using his Oil Drop experiment

Thomson	Scientist who proposed a simple "plum pudding" model of the atom
Rutherford	Scientist who discovered the nucleus of the atom and the existence of protons in the nucleus.
Expected result	Most of the alpha particles should pass straight through the thin foil. Some alpha particles should suffer slight deflections.
Actual result	Most of the alpha particles went straight through the metal foil. Some of the alpha particles were deflected at large angles. A few were reflected back along their own path.
Chadwick	Scientist who discovered the neutron

Proton	Relative Charge = +1. Relative Mass = 1. Located in the nucleus
Neutron	Relative Charge = 0. Relative Mass = 1. Located in the nucleus
Electron	Relative Charge = -1. Relative Mass = $1/1838$ . Located outside the nucleus