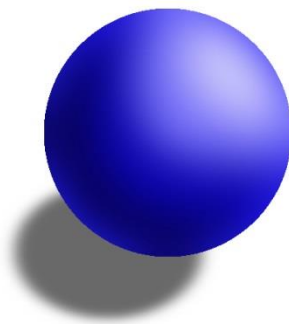


The History of the Atom

John Dalton

Dalton's Atomic Theory (1802)

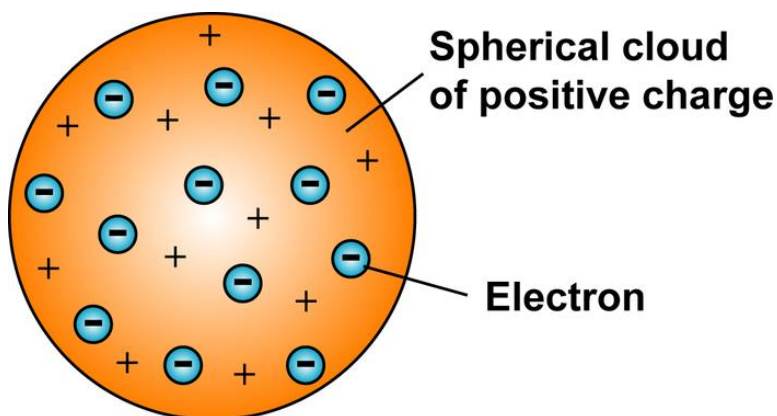
1. All elements are composed of tiny indivisible particles called atoms.
2. Atoms of the same element are identical. The atoms of any one element are different from those of any other element.
3. Atoms of different elements can physically mix together or can chemically combine in simple whole-number ratios to form compounds.
4. Chemical reactions occur when atoms are separated from each other, joined, or rearranged in a different combination. Atoms of one element, however, are never changed into atoms of another element as a result of a chemical reaction.



J.J. Thomson

Discovered the electron using a cathode ray tube.

Introduced the "Plum Pudding Model"

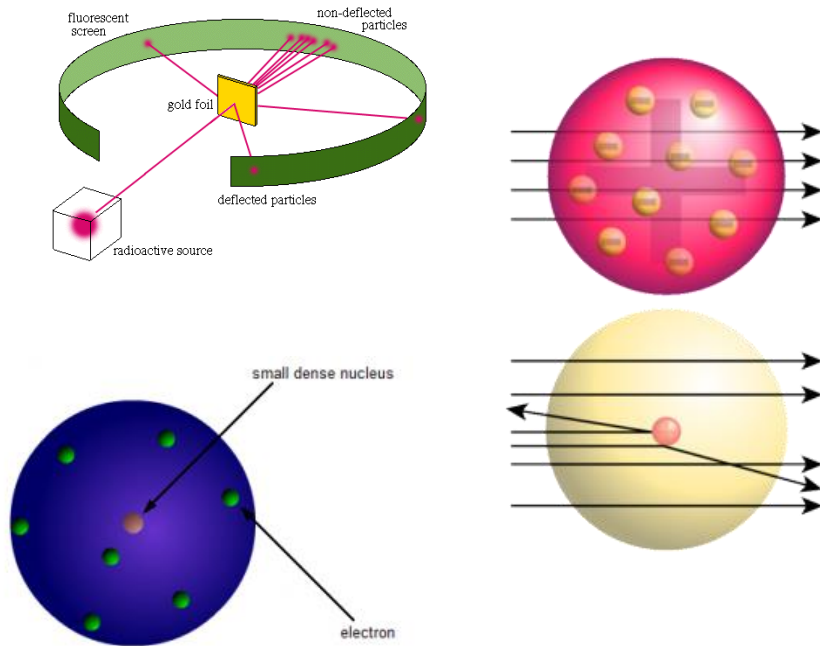


Goldstein: Proton (late 1800s)

Chadwick: Neutron (1932)

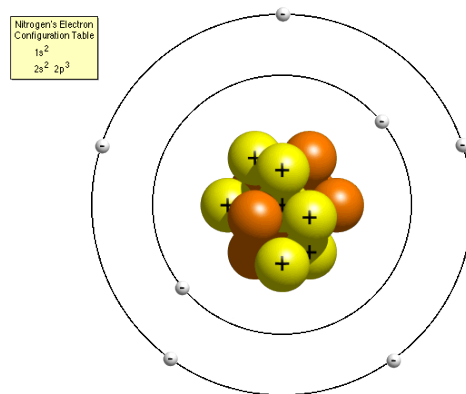
Rutherford

Discovered the nucleus using the Gold Foil Experiment. (1911)



Bohr

Arranged the electrons in orbits (energy levels) around the nucleus



Quantum Mechanical Model

Stated electrons move 3-dimensionally instead of in circular paths.

Introduced orbitals.

