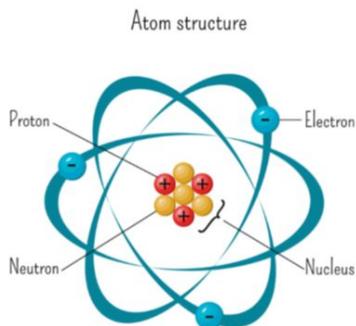


Atoms

An atom consists of a nucleus surrounded by one or more electrons.

The nucleus is a group of proton(s) and neutron(s).



Type of particle	Proton	Neutron	Electron
Charge	Positive (+)	No charge	Negative (-)

In an atom, the # of protons **equals** the # of electrons.

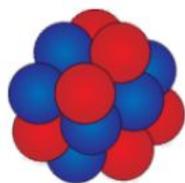
A proton and a neutron are about equal in mass. Together, they make up nearly all the mass of an atom.

An element can be identified by the number of protons in the nucleus of its atoms.

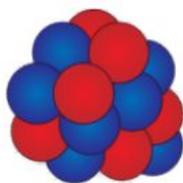
Each element has a unique atomic number. The atomic # = the # of protons.

All atoms of a particular element have the same # of protons, but the # of neutrons can vary.

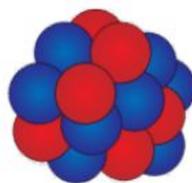
Isotope: An atom with the same # of protons but a different # of neutrons. Ex: C-12, C-13, C-14



Carbon-12
98.9%
6 protons
6 neutrons



Carbon-13
1.1%
6 protons
7 neutrons



Carbon-14
<0.1%
6 protons
8 neutrons