Intro to Atomic Structure

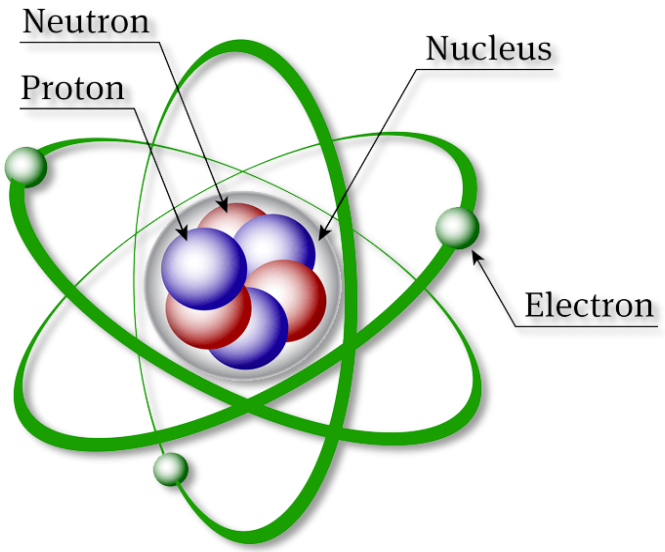
What are atoms? How are they structured?

- An **atom** is the_____particle of an_____.
- An atom is made of THREE **subatomic particles**:

- _____(+1) (1 amu or 1.6726x 10-24g)

-_____(-1) (9.1 x 10-28g)

-_____(0) (1 amu or 1.6749 x 10-24g)

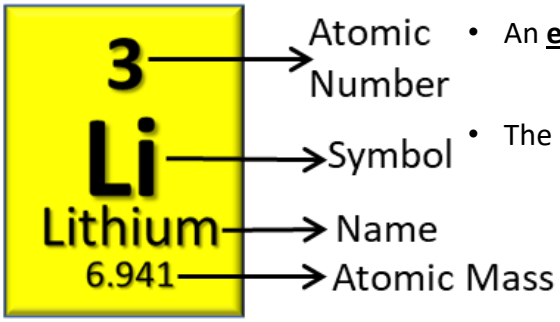


Relative size	Name	Mass (Kg)	Charge (C)
	Proton	1.67×10^{-27}	$+1.602 \times 10^{-19}$
	Neutron	1.67×10^{-27}	0
◦ size exaggerated	Electron	9.11×10^{-31}	-1.602×10^{-19}

- **PROTONS** and **NEUTRONS** are found in the dense _____ of the atom called the _____ which contains the bulk of the atom's _____

- **ELECTRONS** are found in the _____rotating on _____ or _____ around the nucleus. This region holds the bulk of the atom's _____.

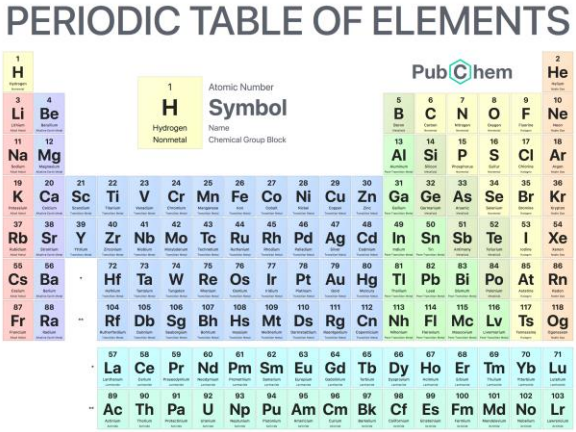
What is an element? How are they organized on the Periodic Table?



- An **element** is a _____ with _____ that are all alike.
- The elements are identified by their number of _____

ATOMIC NUMBER (smaller number) represents the number of _____ in an atom

ATOMIC MASS (larger number) represents the SUM of _____ and _____ in an atom



The Periodic Table references _____ atoms. These are atoms that have _____ numbers of **protons** AND **electrons**, THEREFORE..

P+=_____

e-=_____

N=_____