



NOTES

SUBATOMIC PARTICLES

PARTICLES WITH A CHARGE

■ Protons

- Determine atom's identity and symbol
- Have a positive (+) charge
 - Think p for positive!
- Number of protons is called **atomic number**

■ Electrons

- Determines charge of an element
- Have a negative (-) charge
- Atoms are neutral
 - Means (+) = (-) or protons = electrons
- Same as atomic number (for neutral atom)

PARTICLE WITHOUT A CHARGE

- **Neutrons**

- Have a neutral charge

- **Mass Number**

- Tells you number of protons and neutrons in the nucleus of the atom
 - Mass number = protons + neutrons
 - OR REARRANGE AND:
 - Neutrons = mass number – atomic number
(protons)

ELEMENT INFORMATION

- Atomic number: unique for each element
 - Whole number only
- Symbol
 - One or two letter
 - First is always capital
 - Second is always lowercase
- Element name
- Atomic weight (mass)
 - Weighted average of all an atom's isotopes
 - Isotopes are different versions of an atom (have different mass)

