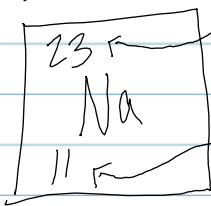


Chapter 2 ~ Chemistry

Matter: Elements & Compounds

(Atoms ~> Compounds)
(Emergent)



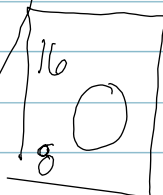
Mass: Neutrons + Protons
 $23 = 12 + 11$

$23 = N + P$
 $23 = 12 + 11$

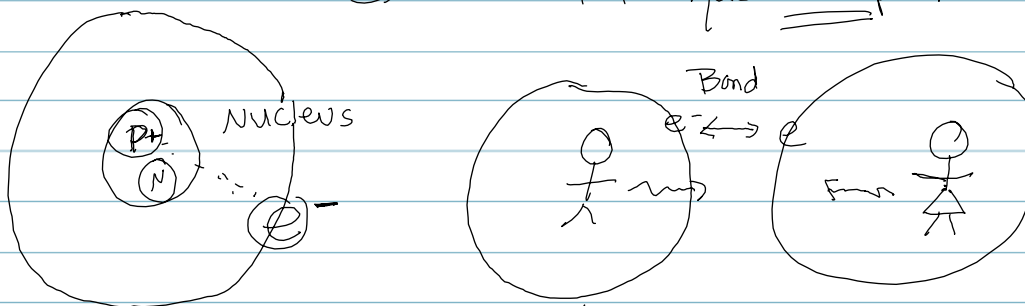
Number: Protons

| | | |
|--|--|--|
| <p><u>Neutrons</u> No charge Isotope</p> | <p>Protons * * Positive Charge Determines <u>Element</u></p> | <p>* <u>Electrons</u> Negative charge outer shells. * Chemical RxN</p> |
|--|--|--|

Element that has 8 protons !!



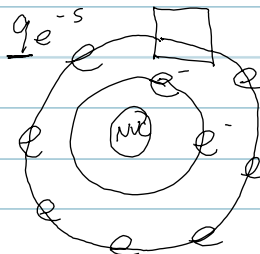
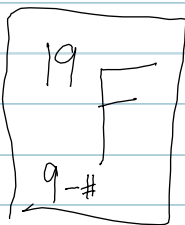
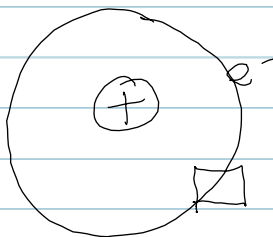
1. gas
2. colorless
3. mass 16 amu



* 1st shell = $2e^-$ *
* 2nd shell = $8e^-$ (octet rule)
Stability = full shell

find # Electrons
~ Neutral ($+ / - = 0$)
Na 11 protons + 11 electrons = 0
 $\begin{matrix} 16 \\ 8 \text{ O} \end{matrix} = \text{pro: } 8 \text{ elec: } 8$

Electrons: $\begin{matrix} 1 \\ \text{H} \\ 1 \end{matrix} \rightarrow 1p \ 1e$



Bonding
stable
take/give electron