

2.5.20

**Intro Chapter: Elements,
Compounds, Mixtures**

Today's Objectives:

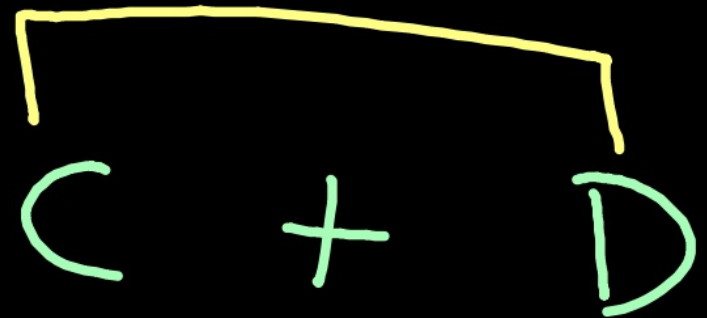
- Learn to separate elements, compounds, mixtures
- Learn products and reactants
- Use the conservation of mass to solve for missing masses

Writing a Chemical Formula

Reactants



Products



Mass of Reactants = Mass of Products

Conservation of Mass - Mass can't be
created or destroyed

$$A + B = C + D$$

$$50\text{g} + 40\text{g} = ? + 30\text{g}$$

$$90 = X + 30$$

$$X = \boxed{60\text{g}}$$

Element: Pure Substance

- Smallest Part = Atom
- Found on P.T.

Gold Bar (Au)

New Elements!

Li : Lithium

Be : Beryllium

B : Boron

C : Carbon

N : Nitrogen

Compound: 2 or more elements bonded together

- Has a chemical formula.

H_2O , $NaCl$, CO_2

Mixtures Several compounds together

① Homogenous: (Solutions) Ex $\text{NaCl} + \text{H}_2\text{O}$: Salt Water
(Same everywhere)

② Heterogenous: → Least organized
(Every sample is different)



Graphic Organizer

Matter

Pure
Substances

Elements

Au
C
N

Compounds

H₂O
CO₂
NaCl

Mixtures

Homogenous

Salt Water
Kool Aid

Heterog.

Everything
Else

Chem Chat Lab

Station 1: Cross out Qs 4 & 5

Station 3: 5 samples.

~~XX~~

2)

Dependent^y

Independent^x

1) Sulfur + Iron

10) Use your own
PT :)