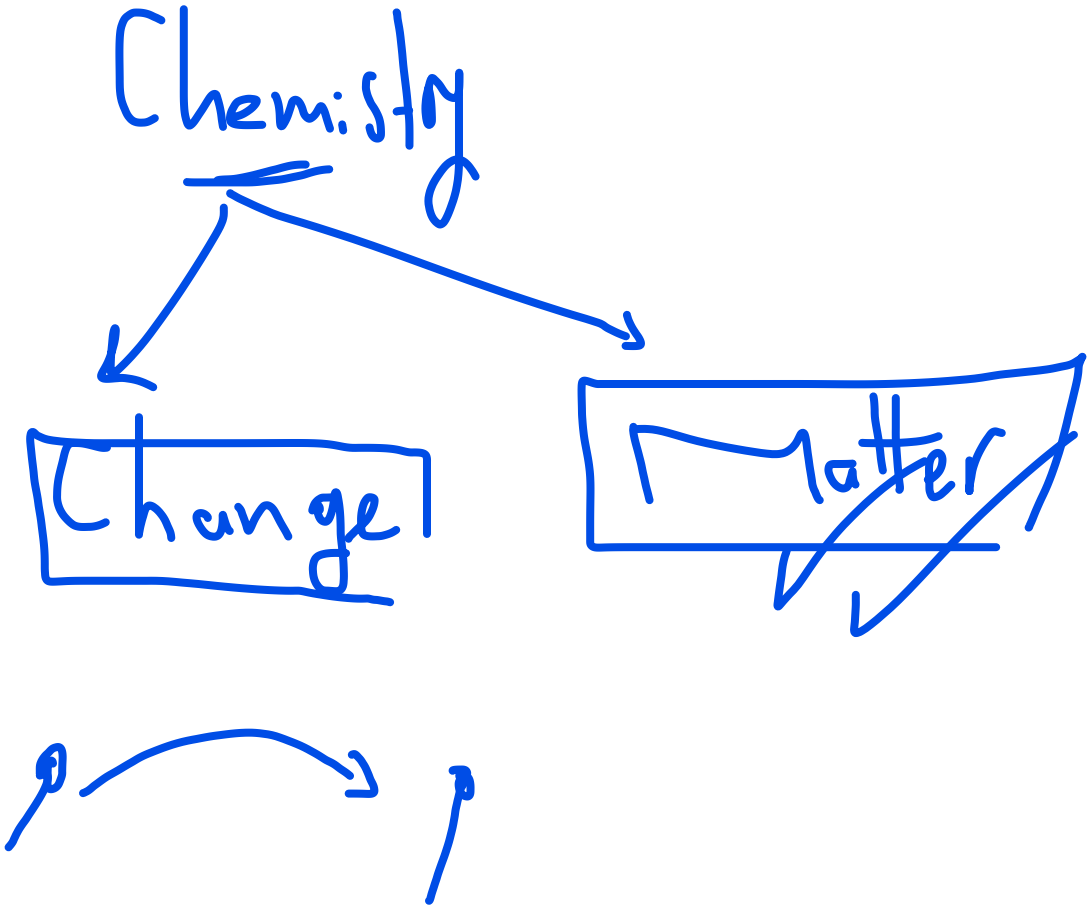
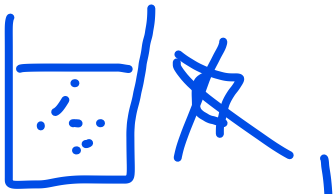

Chemistry
Change
Matter

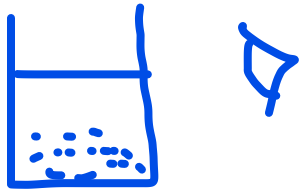
Matter

Mixture

- Homogenous



- heterogenous



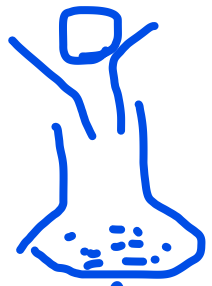
Pure Substance

- ~~Sol.~~
- Element: Al, C, O_2
- Compound: H_2O

Separation

Boiling

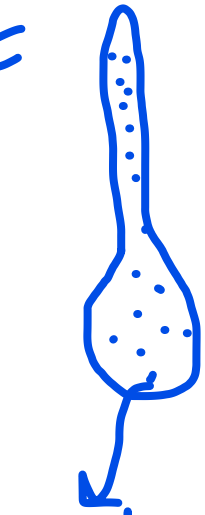
filteration



Gold
Copper

Physical

Al



atoms

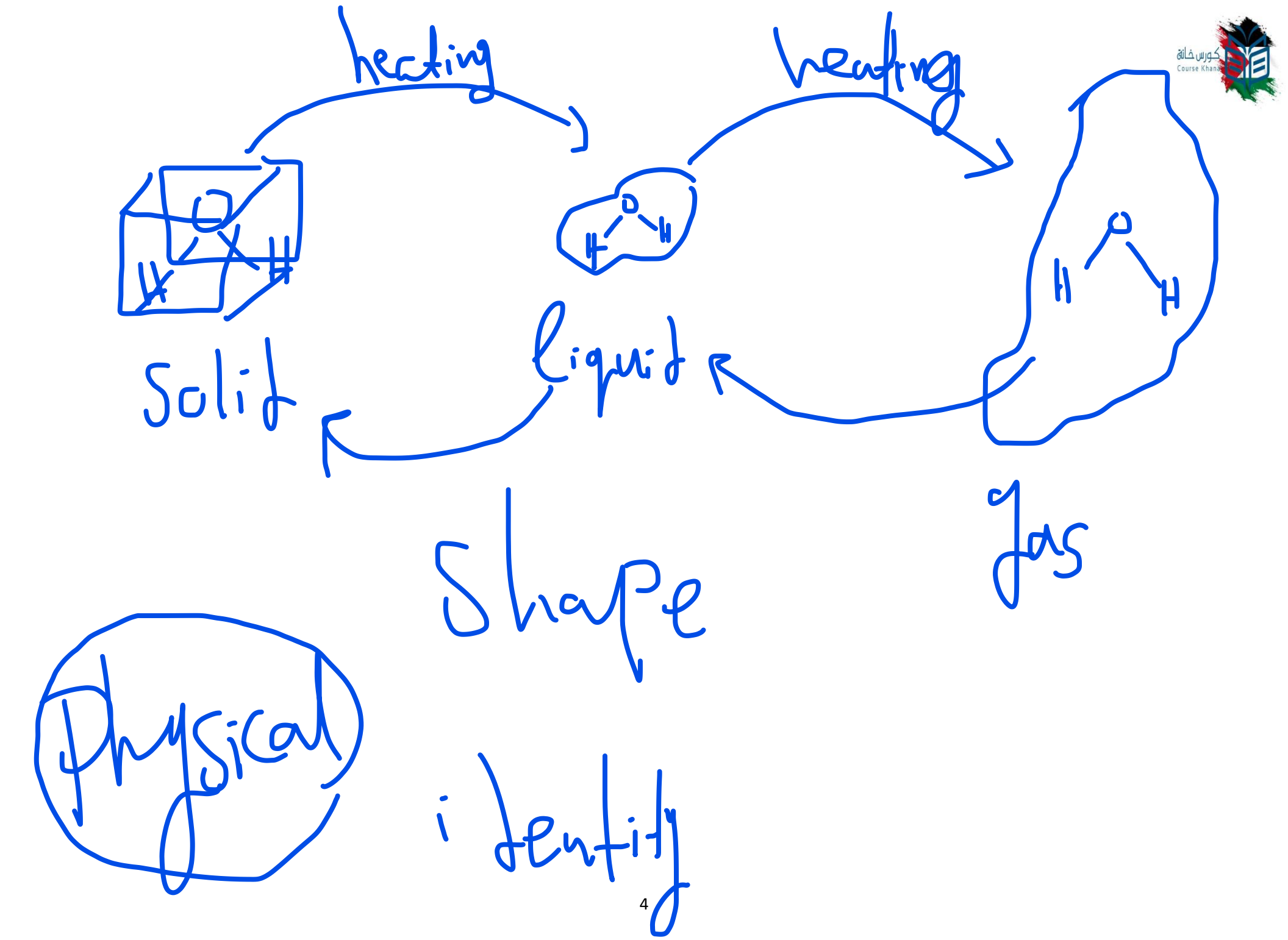
Al

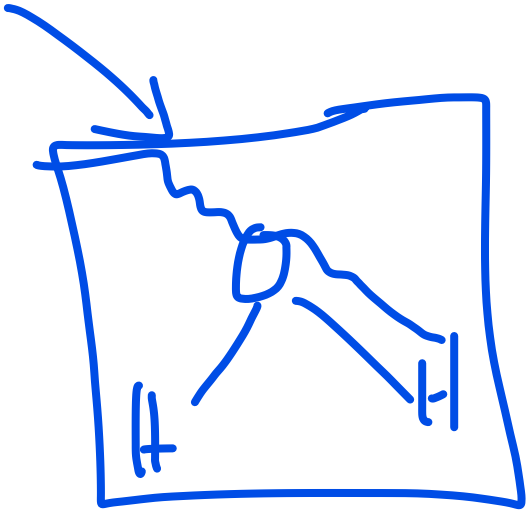
molecule

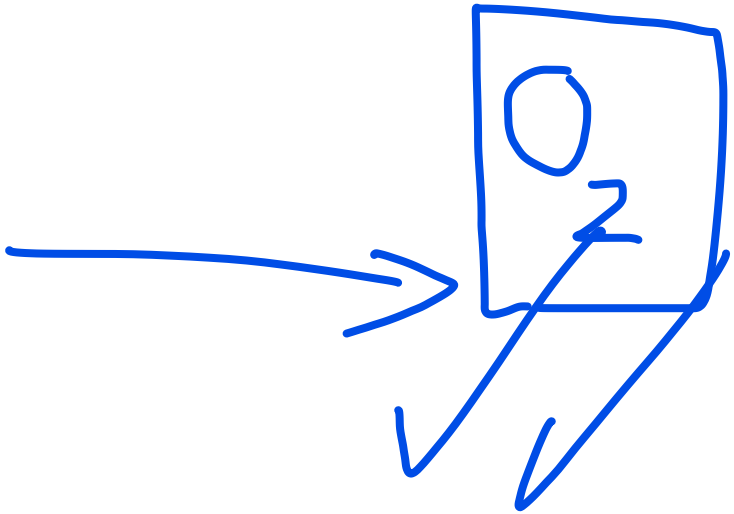
O

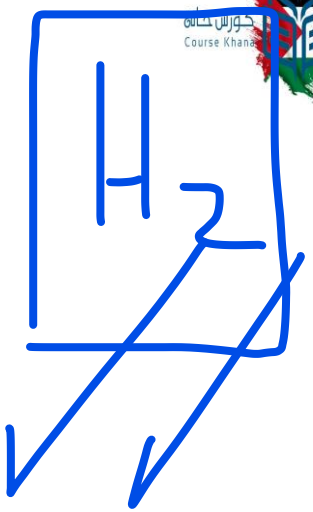
H

Chemical methods

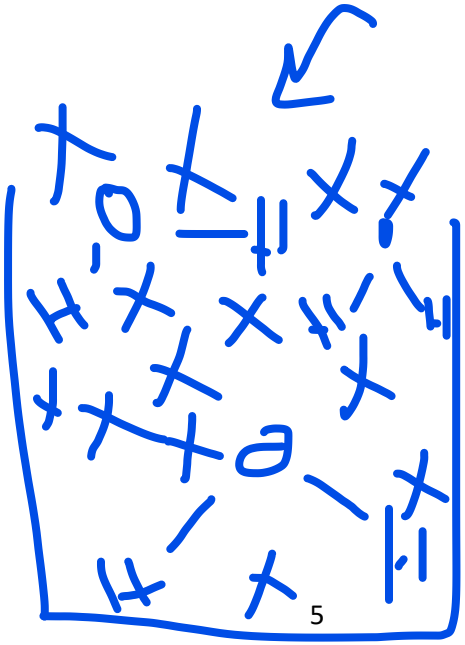

heating
heating
Solid
liquid
gas
Shape
Physical
identify

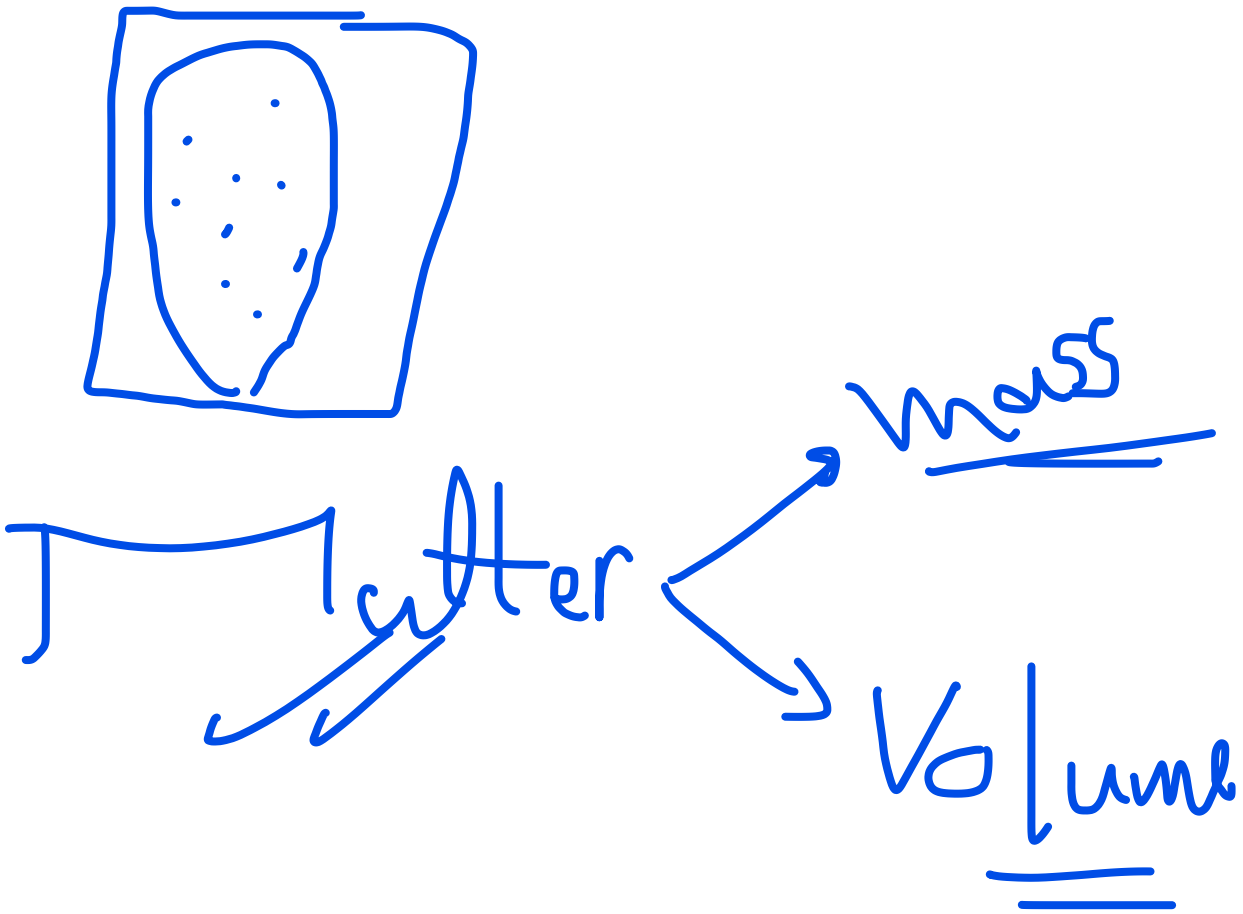


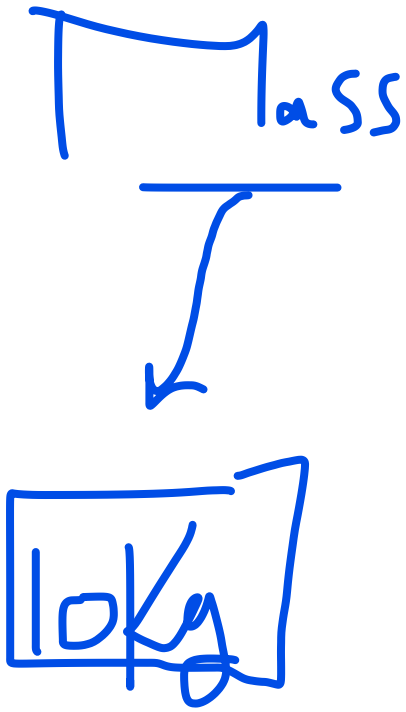


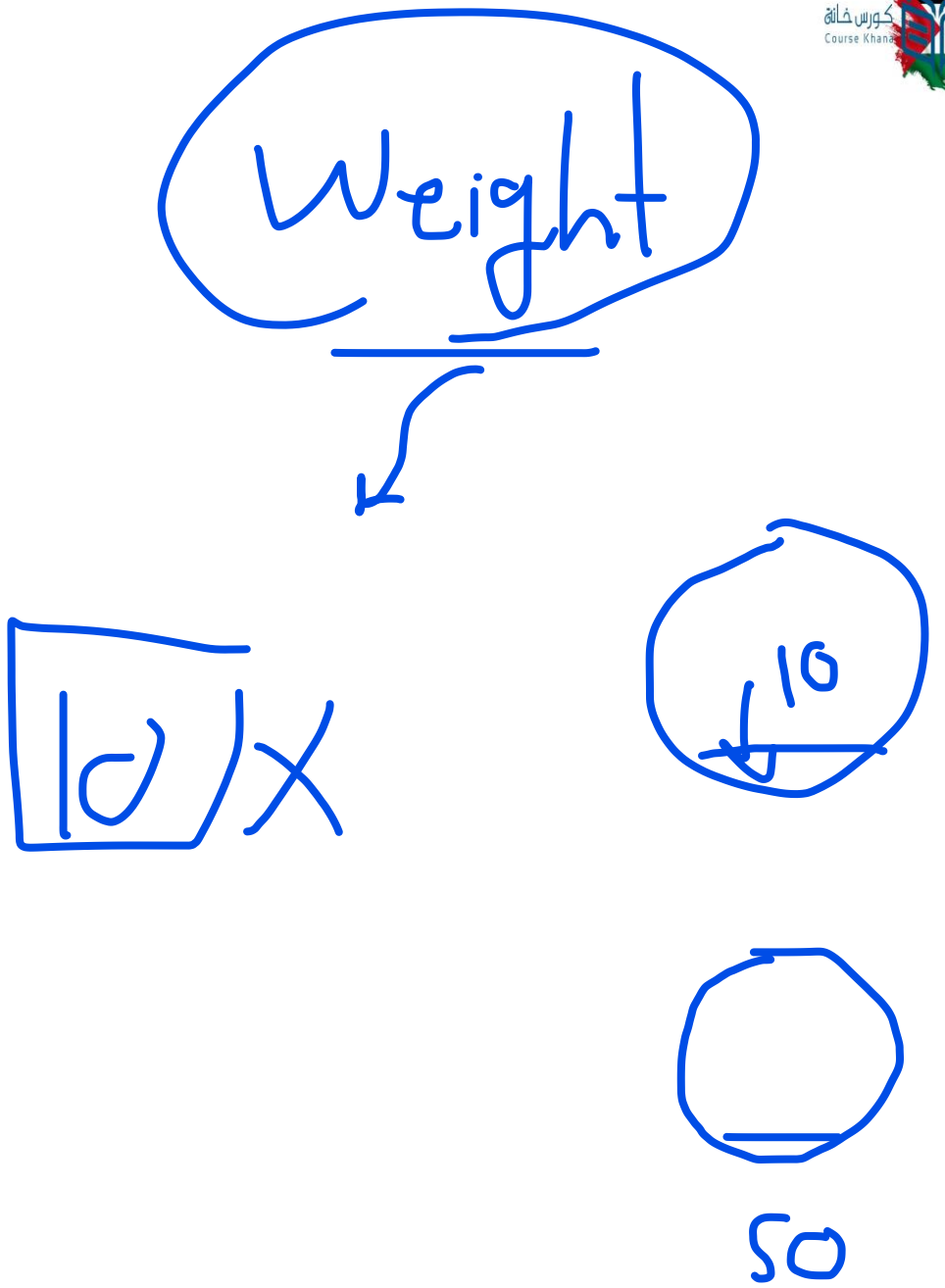


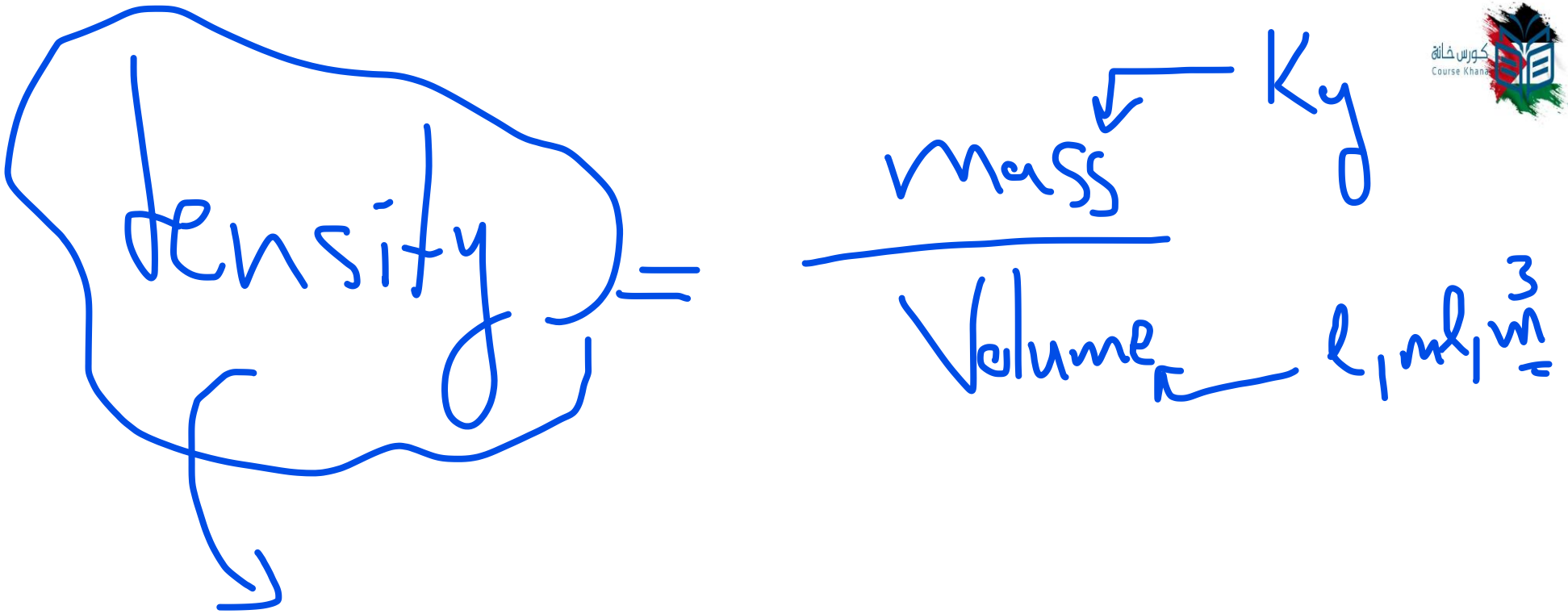
Chemical



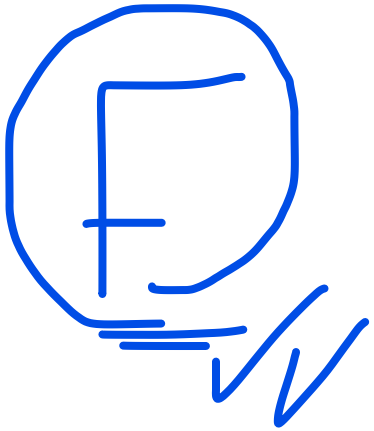

matter
mass
Volume


Mass
10kg

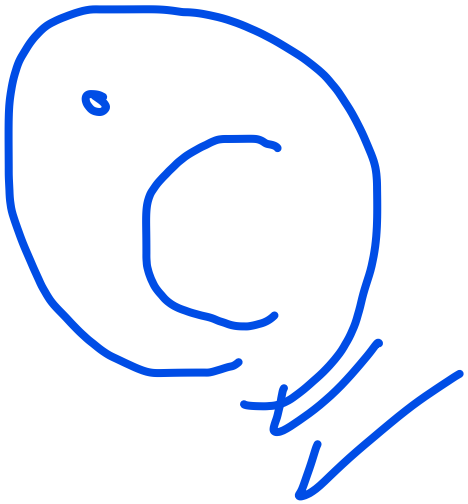

Weight
10X
10
50



mass over Volume



temp.



$$T^{0}f = \frac{9}{5}T^{0}C + 32$$

$$150\,f = \frac{9}{5}T^{0}C + 32$$

$$\frac{150 - 32}{\frac{9}{5}} = T^{0}C$$

$$118 = \frac{9}{5} \times T^{\circ}C$$

$$118 \div \frac{9}{5} = T^{\circ}C$$

$25^{\circ}C \rightarrow$

$$T_f = \left(\frac{9}{5} \times 25\right) + 32 = \_\_\_\_\_ \ F$$

$0^{\circ}C$

$$T^{\circ}f = 32$$

Kelvin

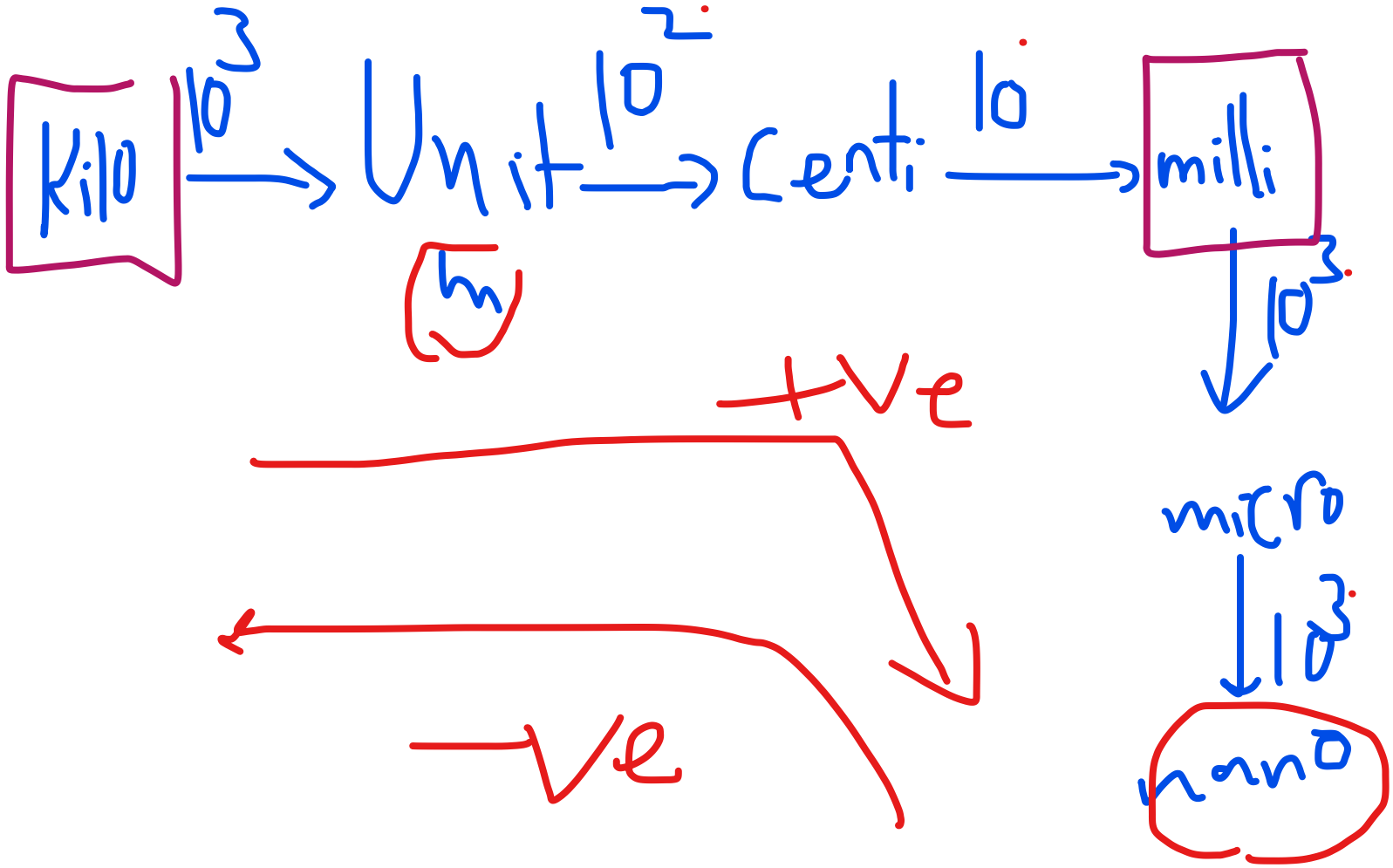
$$T_K = T^{\circ}C + 273.15$$

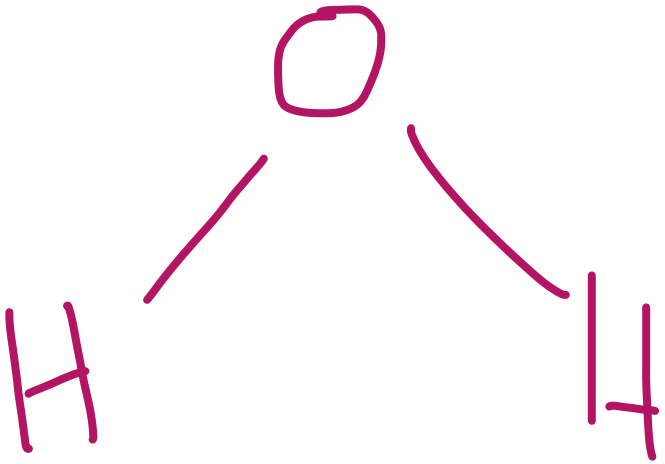
500 Cm ⟶ micrometer

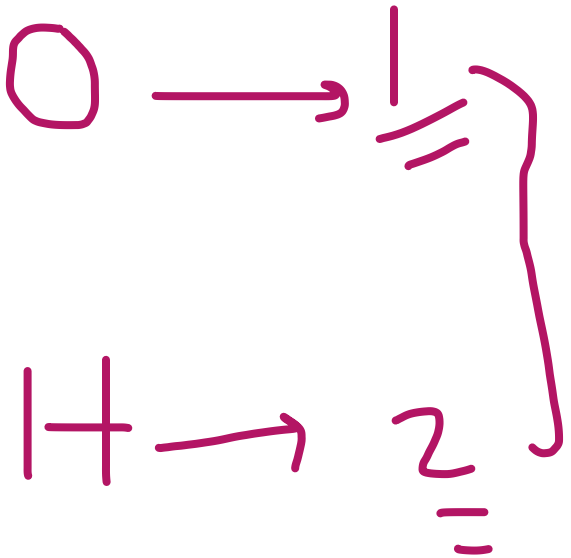
$1Cm = 10^4 \mu m$

$$500 Cm \times \frac{10^4 \mu m}{1 Cm} = 500 \times 10^4$$

$$= 5 \times 10^6 \mu m$$

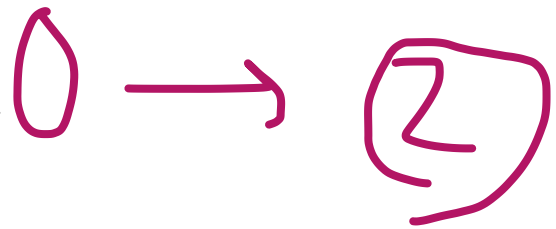

kilo
10^3
Unit
10^2
centi
10^1
milli
10^3
micro
10^3
nano
+ve
-ve





H_2O

CO_2



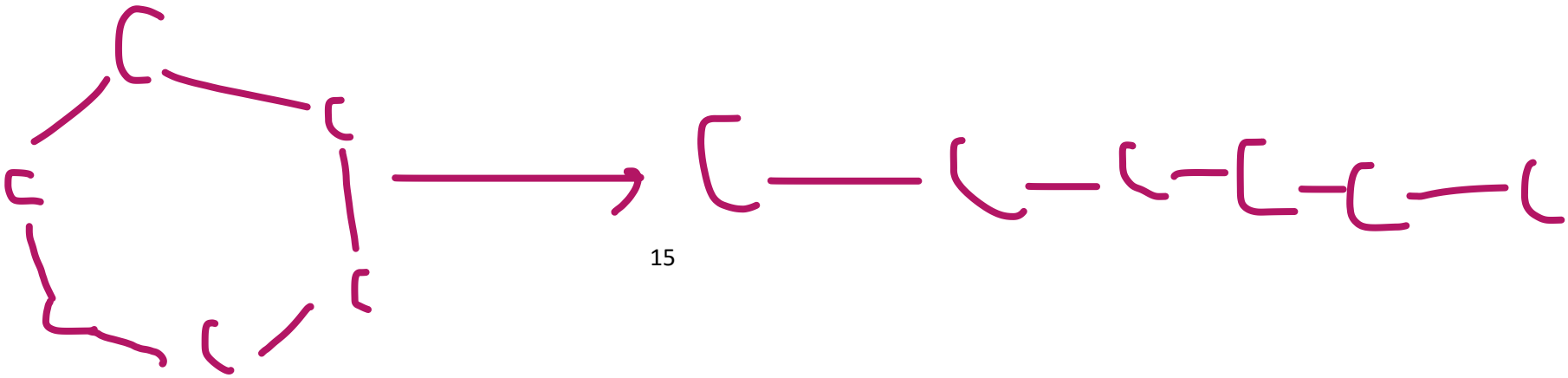
Combination

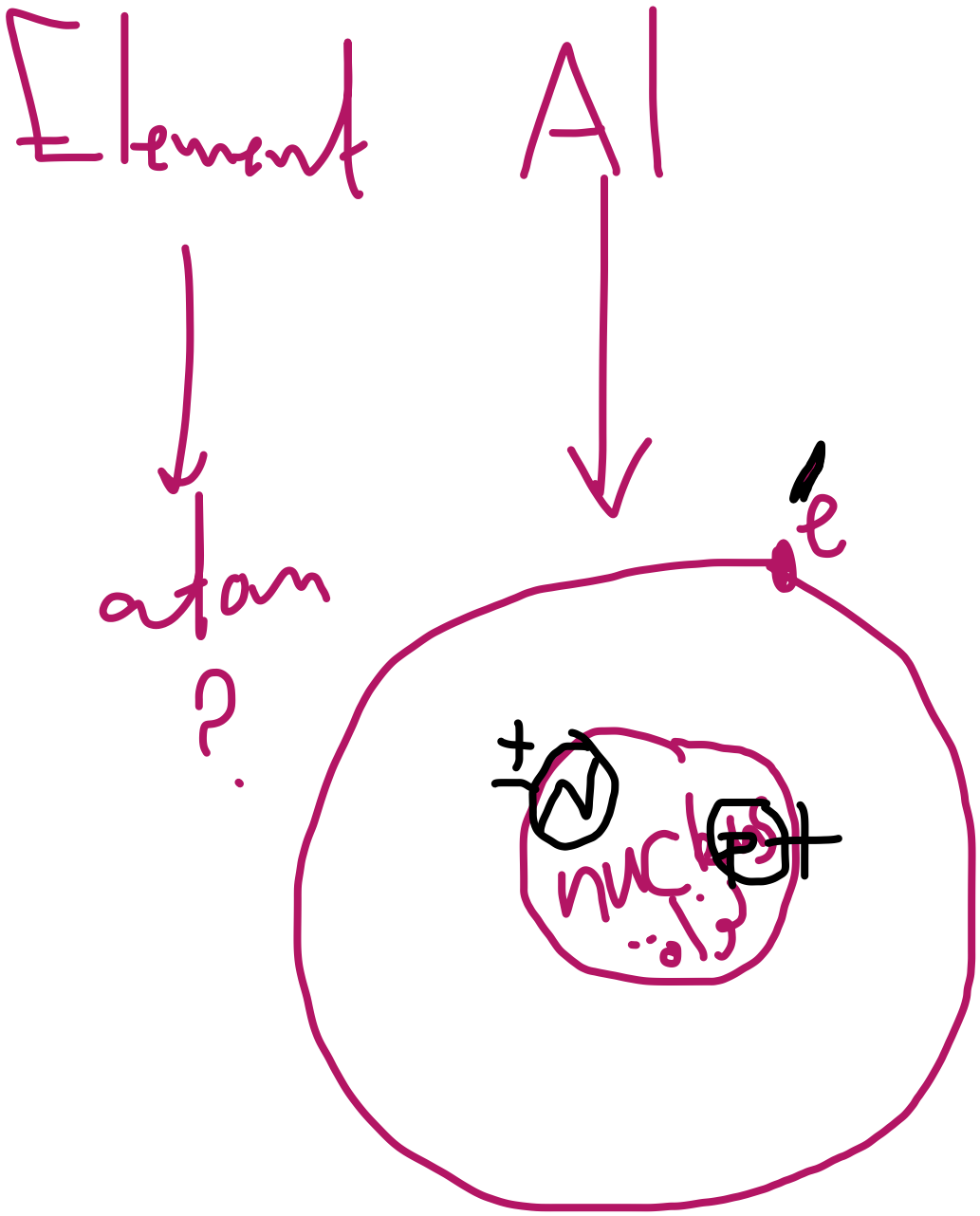
$$2H_2 + O_2 \longrightarrow 2H_2O$$

Separation

$$2HCl \longrightarrow H_2 + Cl_2$$

Rearrangement




Element
Al
atom
?
e
+
N
P
nucleus