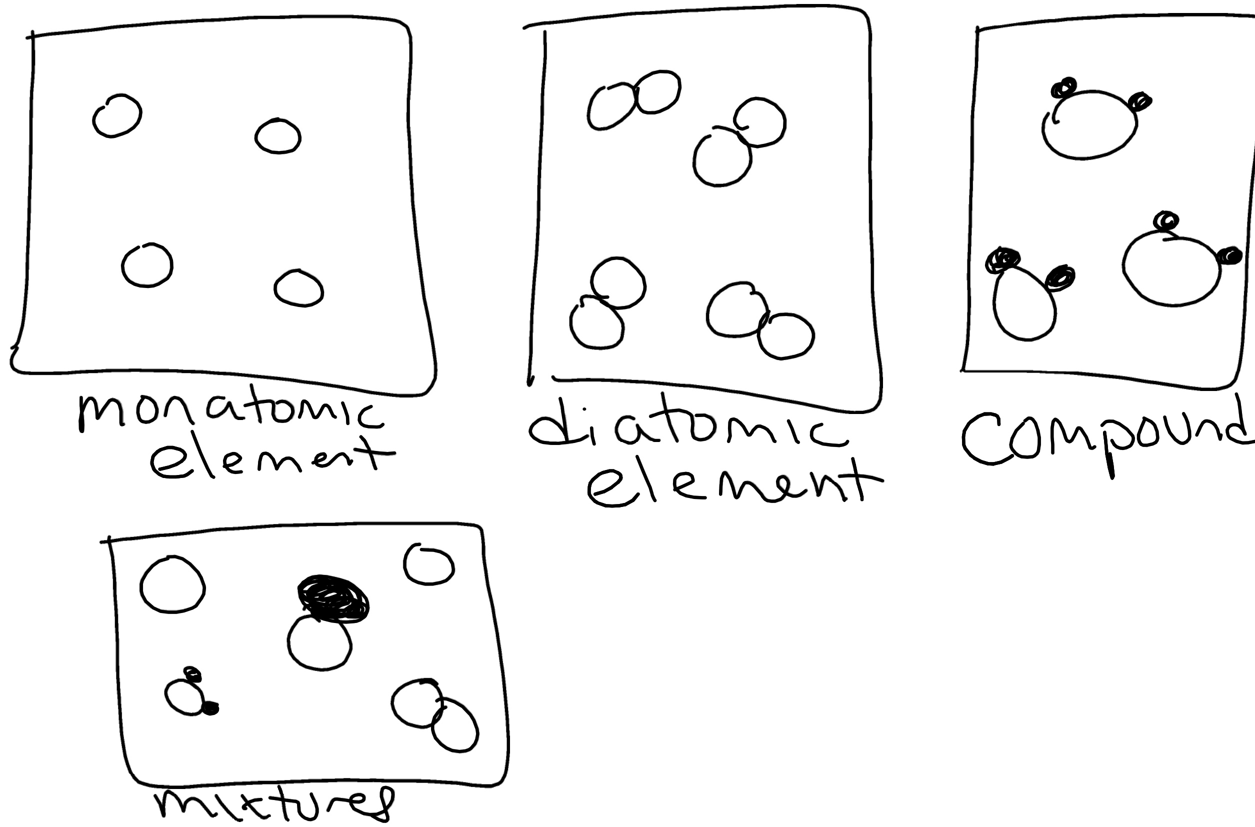
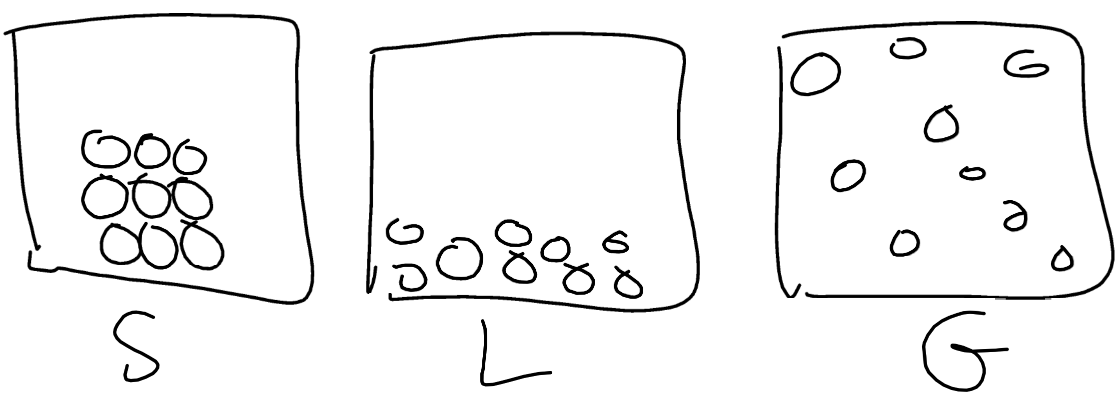

monatomic element
diatomic element
compound
mixtures


S
L
G

#0.75 KL → L

1 KL = 1000 L constant

$\frac{.75\,KL}{1}\left(\frac{1000\ L}{1\ KL}\right) = 750\ L$

$1.67\times10^{9}\,\mu m \rightarrow Km$

$\mu = 10^{-6}$, $K = 10^{3}$] 10^{9}

$\frac{1.67\times10^{9}\,\mu m}{1}\left(\frac{1\ Km}{1\times10^{9}\ \mu m}\right) = 1.67\ Km$

$$\begin{array}{r} 1.675 \\ +\ 22.3 \\ \hline 23.975 \end{array}$$

24.0

Round to the last place value of the least precise mearument

(1.675)(22.3)

= 37.3525

37.4

Round to the least # of sig fig

$0.75\,KL \rightarrow L$

$$\left(\frac{.75\,\cancel{KL}}{1}\right)\left(\frac{1000\,L}{1\,\cancel{KL}}\right) = 750\,L$$

$\mu \quad 10^{-6}$
$K \quad 10^{3}$] 10^{9}

$1.67\times10^{9}\,\mu m \rightarrow Km$

$$\frac{1.67\times10^{9}\,\cancel{\mu m}}{1}\left(\frac{1\quad Km}{1\times10^{9}\quad \cancel{\mu m}}\right)$$

$1.67\ Km$

Def

Trend down group + across period

Reason for trend

---

electronegativity

attraction an atom has for electrons in a bond

Down a group → electronegativity decreases

b/c there are more energy levels

Across a period → electronegativity increases

b/c more protons (greater nuclear charge)

Ionization Energy

Amount of energy needed to remove the outermost electron from an atom

$Q = mC\Delta T$	Temp Change	
$Q = mH_f$	Phase Change	S → L or L → S
$Q = mH_v$		L → G or G → L

Lewis Dot
atom

Mg (2 dots)

2-8-(2)

1 2 / 7 X 3 / 5 6 / 8 4

P (5 dots)

2-8-5

ION

2-8

[Mg]$^{+2}$

2-8-8

[P (8 dots)]$^{-3}$

Endo / Exo

Reactants → products + heat exo

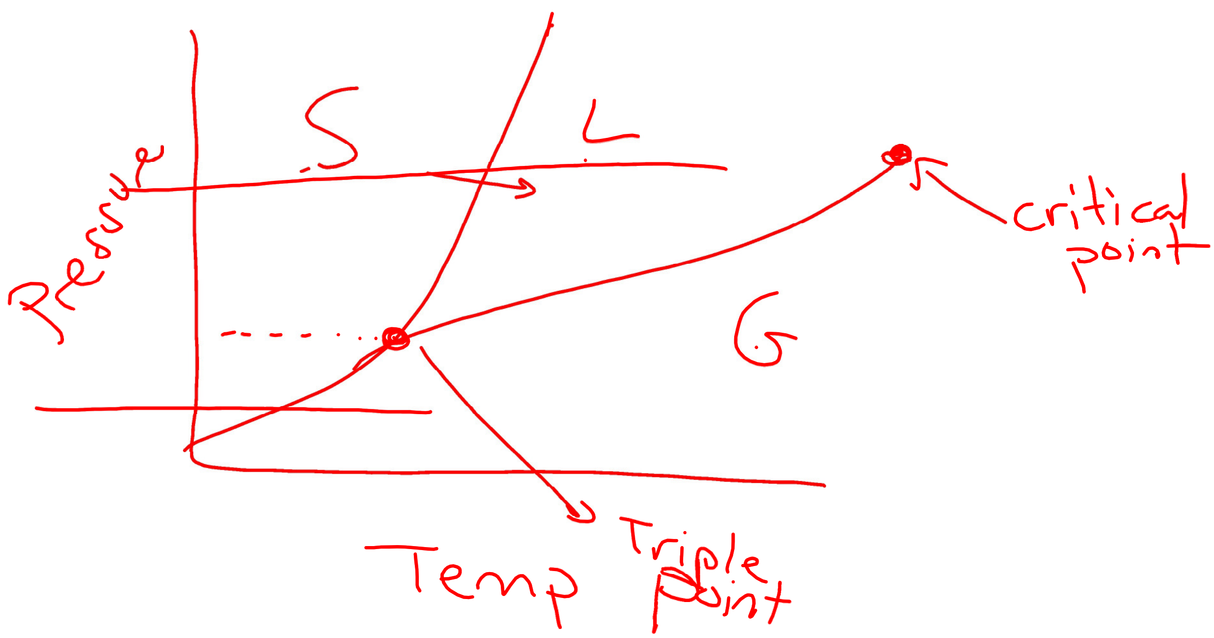
Reactants + heat → products endo

S → L → G endo

G → L → S exo

endothermic
- absorbing energy

exothermic
- releasing energy


Pressure
S
L
G
critical point
Triple point
Temp

Dalton - first atomic theory

Thompson - discovery e^-
plum pudding model
cathode ray tube

Rutherford - gold foil exp ⇇⇇⇇ know this
discovery of nucleus

Bohr - planetary model
* electrons in energy levels

Wave mechanical model → orbitals