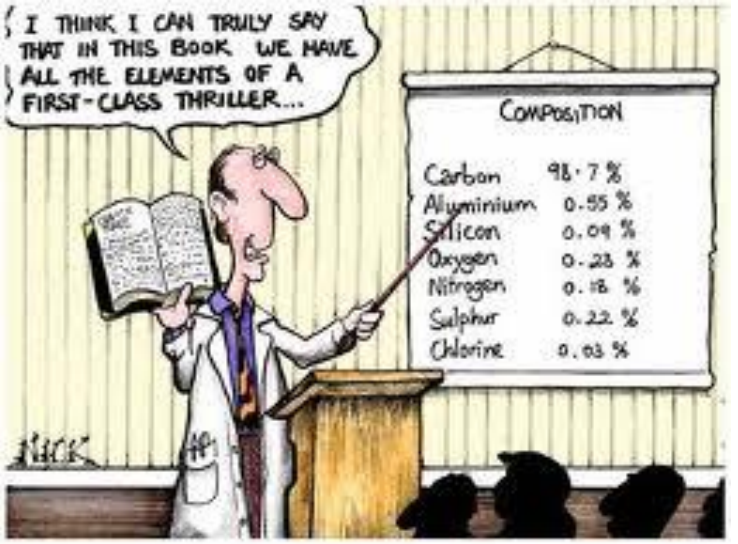
Stoichiometry



Name_____

Test Date_____

Vocabulary

Term	Definition
Stoichiometry	
Conversion factor	
Dimensional analysis	

Review Practice:

$25=_____ nickels

2.5 miles =_____ inches

180 days =_____ minutes

125 cm =_____ kilometers

15 m/s =_____ km/hr

What is **formula mass?**

Units: _____

Try it:

NaCl

$NiSO_3 * 6H_2O$

$Al_2(SO_4)_3$

Percent Composition:
What is it?

Formula:

Try It:

NaCl

Na_____
Cl_____

$Al_2(SO_4)_3$

Al_____
S_____
O_____

$NiSO_3 * 6H_2O$

H_2O_____

Empirical and Molecular Formula

Empirical formula:

Molecular formula:

Empirical Formula Steps:
1)

2)

3)

4)

Try It:
Example 1:

Example 2:

Molecular Formulas
Equation:

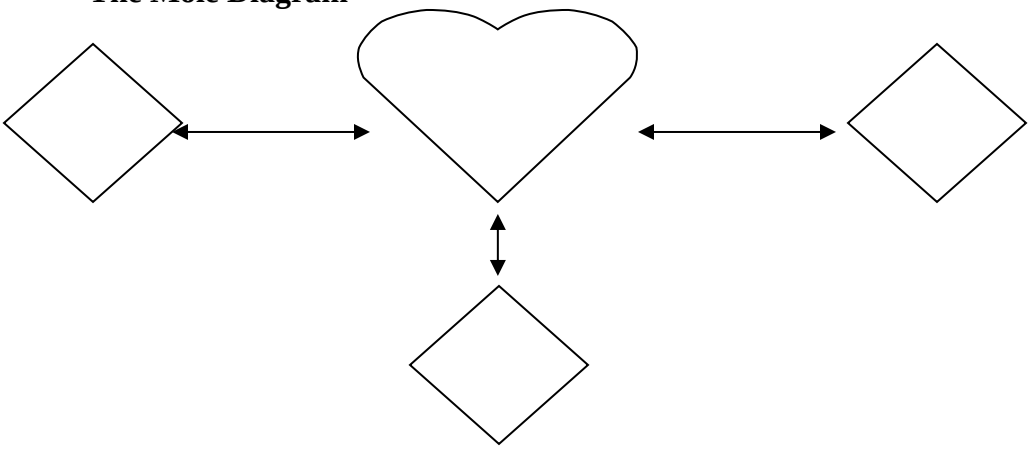
Try It:

Moles and Stoichiometry

Vocabulary

Term	Definition
Mole	
Avogadro's number	
Molar Mass	
Molar Volume	

The Mole Diagram



Try It:
a)

b)

c)

d)

e)

f)

g)

Stoichiometry

Important things that you need:
1)

2)

Mole ratio

Write all the mole ratios for:

Ex 1: $2H_2 + O_2 \rightarrow 2H_2O$

Ex 2: $Al(NO_3)_3 + NaOH \rightarrow Al(OH)_3 + NaNO_3$

Why do you use a mole ratio?

1)
2)
3)

Try It:

1) Step 1: Balanced Chemical Equation (mass/mass ex.)

_____

a)

b)

2) Step 1: Balanced Chemical Equation (mass/mass ex.)

_____

3) Step 1: Balanced Chemical Equation (mass/vol ex.)

_____

a)

b)

4) Step 1: Balanced Chemical Equation (vol/vol ex.)

_____

a)

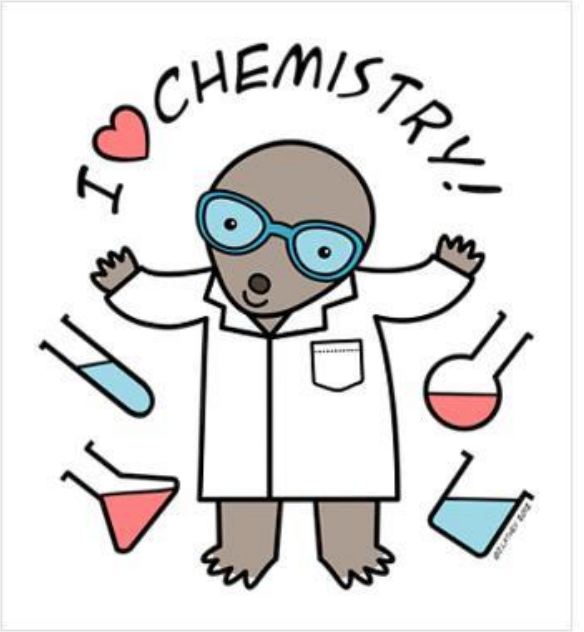
b)

When do you use the mole ratio? _____
_____
_____

Write your own example problem where you would use a mole ratio

When do you use the mole diagram? _____
_____
_____

Write your own example problem where you would use a mole diagram


I ♥ CHEMISTRY!