Name: _____

Period: _____

Test Review

1. Products	A. Chemicals are mixed and get hot.
2. Exothermic	B. The chemicals before the reaction.
3. Physical change	C. When chemical bonds are broken and new substances are formed.
4. Chemical reaction	D. A chemical reaction that gets cold.
5. Endothermic	E. The result of a chemical reaction.
6. Reactants	F. No new chemicals are formed.

1. Coefficient	A. Correct way to smell chemicals
2. Wafting	B. Tells you the number of molecules.
3. Ammonia	C. Should never be combined with Chlorine bleach.
4. Arrow	D. Means "produces" or "creates".
5. Precipitate	E. Tells you the number of atoms in a chemical formula.
6. Subscript	F. When a liquid turns cloudy. Means a solid was formed.

Endothermic or Exothermic Reaction?

____ Two chemicals are mixed and get hot?
____ Heat goes into the reaction?
____ An activated cold pack?
____ Two chemicals are mixed and get cold?
____ Combustion?
____ Heat comes out of a reaction?
____ An activated heat pack?

Chemical or Physical Change?

___ Bubbles are formed.
___ Melting
___ Gets cold
___ Color changes
___ Boiling
___ Digestion
___ Changes temperature
___ Chewing
___ Evaporation
___ Ripping
___ Photosynthesis
___ Gets hot
___ Changes smell
___ Dissolving Salt
___ Combustion
___ Changes taste

Find the atomic masses for the following elements

A. Lithium = _____
B. Helium = _____
C. Iron = _____
D. Silver = _____
E. Aluminum = _____
F. Bromine = _____
G. Uranium = _____
H. Nickel = _____

Find the molecular mass of the following compounds.

Cl_2

Li_2O

$Na(NO_3)$

How many total molecules are there?

_____ $2H_2O$ ____ $2Be_3N_2$ ____ $3C_2F_4$
_____ $5Na_2S$ ____ $4Br_2$ ____ 2K(OH)

How many total atoms are there?

_____ $2H_2O$ ____ $2Be_3N_2$ ____ $3C_2F_4$
_____ $5Na_2S$ ____ $4Br_2$ ____ 2K(OH)

Photosynthesis or Respiration?

___ Creates carbon dioxide
___ Creates oxygen
___ Uses oxygen
___ Uses carbon dioxide
___ Uses glucose
___ Produces glucose
___ Done in animals
___ Done in plants
___ Done in all cells
___Necessary to make ATP
___Endothermic
___Exothermic
___A combustion reaction
___Produces water
___Uses water
___Occurs in chloroplast
___Occurs in mitochondria
___Uses sunlight for energy

Products are on the _____ side of a chemical reaction.

Reactants are on the _____ side of a chemical reaction.

The arrow points to the _____.

$$C_6H_{12}O_6 + 6O_2 \rightarrow 6CO_2 + 6H_2O + \text{energy}$$

Circle the first reactant: _____

Name the first product: _____

How many hydrogen atoms on the product side? _____

How many oxygen atoms on the reactant side? _____

Is this respiration or photosynthesis? _____

What kind of reaction is it? _____

Endothermic or exothermic? _____

Open or closed reaction?

Will the mass of his products be greater than, less than, or equal to his reactants?

Why?

What does this set up allow us to prove?

1. Molecular Mass	A. When the reactants equal the products.
2. Closed System	B. When the reaction is closed and gases can't escape.
3. The Law of Conservation of Mass	C. How heavy a compound or molecule is.
4. Open System	D. When gases aren't caught by the experimental setup.
5. Atomic Mass	E. In a closed reaction mass cannot be lost.
6. Balanced Reaction	F. The decimal numbers on the periodic table.

$4Li + O_2 \rightarrow 2Li_2O$
10g + 12g ? g

If 10 g of Lithium reacts with 12 g of molecular Oxygen, how much Lithium Oxide is produced?

$Mg + Cl_2 \rightarrow MgCl_2$
9g + ? g 35 g

If 9 g of Magnesium reacts with Chlorine to produce 35 g of Magnesium Chloride, how much Chlorine was used in the reaction?

$2NaF + K_2O \rightarrow Na_2O + 2KF$
8g + 9g ? g 11 g

Using the numbers given, find how much Na_2O was produced in the reaction.

Write the following reaction, being sure to use the correct ionic formulas (balanced ionic compounds).
"Magnesium Bromide reacts with Lithium Oxide to produce Magnesium Oxide and Lithium Bromide"

Why do we balance chemical reactions?

Expand out these compounds.

$3NaCl =$ _____

$4MgO =$ _____

$(OH)_2 =$ _____

Write the following in reaction notation.

$2BeCl_2 =$ _____ $Li_2O =$ _____

$4Na =$ _____ $6K_2S =$ _____

$3Al_2O_3 =$ _____ $7H_2O =$ _____

Type of Reaction

_____

_____

_____

_____

_____

Balance these reactions:

____ K_3N + ____ $Ca(CrO_4) \rightarrow$ ____ Ca_3N_2 + ____ $K_2(CrO_4)$

____ Fe + ____ $O_2 \rightarrow$ ____ Fe_2O_3

____ $NH_3 \rightarrow$ ____ N_2 + ____ H_2

____ NH_3 + ____ $O_2 \rightarrow$ ____ NO + ____ H_2O

____ Mg + ____ $Ag(NO_3) \rightarrow$ ____ $Mg(NO_3)_2$ + ____ Ag