

Assignment #2: Review: Balancing Chemical Equations

. Define the following in your own words: a. Ionic bond -	
b. Metallic bond -	
c. Covalent bond -	
d. Molecule -	
e. Compound -	
f. Single Displacement -	
g. Double Displacement -	
h. Combustion -	
i. Synthesis -	
j. Decomposition -	



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۷.	Identify the	compounds	as	10n1c	or	covalent.

a. Lithium Chloride d. Iron (IV) Oxide

b. Potassium Nitride e. Silicon Dioxide

c. Carbon Tetrachloride f. Manganese (IV) Oxide

3. Write chemical formulas for the following compounds:

a. Potassium Permanganate g. Phosphorous Tetrachloride

b. Copper (II) Nitrate h. Dinitrogen Monoxide

c. Potassium Oxide i. Water

d. Calcium Oxide j. Ammonium Chloride

e. Carbon Dioxide k. Carbon Monoxide

f. Mangesium Sulfate 1.Sulfur Dioxide

3rd 9 Weeks 2/4 Assignment 2



- 3. For each chemical equation:
 - -Balance the equation.
 - -Identify the type of reaction
 - -Write a sentence for the reaction.

a.
$$CaCO_3 + HCl \rightarrow CaCl_2 + H_2CO_3$$

$$b. \quad MgSO_4 + \quad NaCO_3 \rightarrow \quad Na_2SO_4 + \quad MgCO_3$$

c.
$$KI + Pb(NO_3)_2 + KNO_3 + PbI_2$$

d.
$$KMnO_4 + H_2O_2 \rightarrow MnO_2 + H_2O + O_2 + KOH$$

e.
$$Mg + H_2O \rightarrow Mg (OH)_2 + H_2$$



2.	Write balance	ed chemica	al equations	for each	of the fo	llowing:

- a. Sodium and Chlorine combine to form Sodium Chloride.
- b. Copper (II) Chloride reacts with Aluminum to form Aluminum Chloride and Copper.
- c. Aluminum oxidizes in the atmosphere, forming Aluminum Oxide.
- d. Iron (IV) Sulfate reacts with Hydrogen Peroxide to form Iron (III) Sulfate, Water, and Oxygen.
- e. Ammonia reacts with water to form ammonium hydroxide.

f. Propane (C₃H₈) burns in oxygen, forming carbon dioxide and water.