Teacher Name: Uzma Amer Class: 9 Subject: Chemistry Date: 24th Feb’17

**Stoichiometry**

**Stoichiometry** measures these quantitative relationships, and is used to determine the amount of products/reactants that are produced /needed in a given reaction. Describing the quantitative relationships among substances as they participate in **chemical** reactions is known as reaction **stoichiometry**.

**Steps of balancing Equation**

Balance equations "by inspection" with these steps:\*\*Check for diatomic molecules.\*\*Balance the metals (not Hydrogen).\*\*Balance the nonmetals (not Oxygen).\*\*Balance oxygen.\*\*Balance hydrogen.\*\*The equation should now be balanced, but recount all atoms to be sure.\*\*Reduce coefficients (if needed).

The **chemical equation** needs to be **balanced** so that it follows the law of conservation of mass. A **balanced chemical equation** occurs when the number of the different atoms of elements in the reactants side is equal to that of the products side. **Balancing chemical equations** is a process of trial and error.

**Balance the following equations:**

1. **C3H8    +    O2         CO2      +     H2O**

**2.    l2(SO3)3   +   NaOH    Na2SO3    +   Al(OH)3** 

**3.           Al2O3    +   Fe    Fe3O4    +     Al** 

**4.            KClO3     KCl   +  O2** 

**5.            NH4NO3     N2O    +    H2O** 

**6.            NaHCO3     Na2CO3   +    H2O    +   CO2** 

**7.            P4O10     +    H2O      H3PO4** 

**8.            Al    +    H2SO4        Al2(SO4)3     +    H2** 

**9.            Be2C   +    H2O      Be(OH)2     +   CH4** 

**10.    S    +   HNO3      H2SO4   +    NO2   +   H2O** 

**11.            NH3   +   CuO     Cu   +   N2   +   H2O** 

**12.     Cu   +    HNO3     Cu(NO3)2    +   NO   +    H2O**