Name______________________________ Unit 7: Rxns and Stoich I Can Statements Period_____

_____1. I can balance a chemical equation showing conservation of mass using the lowest whole number coefficients.	Balance the following chemical equation using the lowest whole number coefficients. ___C_7H_{10} + _____O_2 → _____CO_2 + _____H_2O ____$Al_2(SO_4)_3$ + _____$Ca(OH)_2$ -----> _____$Al(OH)_3$ + ____$CaSO_4$
_____2. Given a list of chemical reactions, I can classify them as being a synthesis reaction, decomposition reaction, single replacement reaction, or double replacement reaction.	Classify the following reactions as synthesis, decomposition, single replacement, or double replacement. A) $Mg + 2AgNO_3 \rightarrow Mg(NO_3)_2 + 2Ag$ ____________________ B) $2Mg + O_2 \rightarrow 2MgO$ ____________________ C) $MgCO_3 \rightarrow MgO + CO_2$ ____________________ D) $MgCl_2 + 2AgNO_3 \rightarrow 2AgCl + Mg(NO_3)_2$ ____________________
_____3. Given reactants and the typed of reaction, I can determine the products of a reaction	**Single Replacement: Include PHASE** K + $Zn(NO_3)_2$ → ______________________________ Li + $Mg(OH)_2$→ ______________________________ **Double Replacement : Include PHASE** NaOH + $PbNO_3$ → ______________________________ **Synthesis: Include PHASE** H_2 + Br_2 → ______________________________ **Decomposition: Include PHASE** NO → ______________________________ **Combustion: Include PHASE** C_2H_2 + O_2 → ______________________________

____4 Given a compound, I can use Table F to determine its solubility	PbI_2 _______ $CoCl_3$__________ $BaSO_4$ _________ NaCl _______ AgOH _________ Li_3PO_4___________

_____5. Given a balanced equation, I can state the mole ratios between any of the reactants and/or products.	Given the following balanced equation, state the mole ratios between the requested substances. $C_3H_8(g)$ + $5O_2(g)$ -----> $3CO_2(g)$ + $4H_2O(l)$ The mole ratio between C_3H_8 and O_2 is _______C_3H_8:_______O_2. The mole ratio between C_3H_8 and CO_2 is _______C_3H_8:_______CO_2. The mole ratio between C_3H_8 and H_2O is _______C_3H_8:_______H_2O. The mole ratio between CO_2 and O_2 is _______CO_2:_______O_2. The mole ratio between H_2O and CO_2 is _______H_2O:_______CO_2.
_____6. I can define stoichiometry.	<u>**Definition:**</u> Stoichiometry:____
_____7 Given the number of moles of one of the reactants or products, I can determine the number of moles of another reactant or product that is needed to completely use up the given reactant/product.	Using the equation from question #5, determine how many moles of O_2 are needed to completely react with 7.0 moles of C_3H_8. Using the equation from question #5, determine how many moles of CO_2 are produced when 7.0 moles of C_3H_8 completely react.