Unit 5 Review - Accelerated Chemistry Name _____Pd:____

Names and formulas Review: You must be able to correctly write the formulas of compounds to write chemical reactions.

	Name	Formula	Ionic or Covalent?
1.	disulfur trioxide	_____	_____
2.	ammonium sulfide	_____	_____
3.	iron (III) sulfate	_____	_____
4.	tetraphosphorus decaoxide	_____	_____

5. Define chemical reaction:

6. Define reactant. Which side of a chemical equation (left or right) has the reactants?

7. Define product. Which side of a chemical equation has the products?

8. a. What is a subscript?

   b. How do you determine the subscripts needed for an ionic compound?

   c. How do you determine the subscripts needed for a molecular compound?

9. Define coefficient including where they go and why they are necessary.

10. We balance chemical equations because _____ cannot be created or destroyed according to the law of conservation of _____.

11. What are the five indicators of a chemical change?

a. _____
b. _____
c. _____
d. _____
e. _____

12**. Types of Reactions:** There are 5 basic types of reactions beginning chemistry students need to know. **Describe each of the type of reactions below, completing the table.**

Type of reaction	Description of reaction

Balance **the following reactions. Indicate the type of reaction.**

1. $CaO + H_2O \rightarrow Ca(OH)_2$ _____

2. $C_4H_6 + O_2 \rightarrow CO_2 + H_2O$ _____

3. $Al(NO_3)_3 + H_2SO_4 \rightarrow Al_2(SO_4)_3 + HNO_3$ _____

4. $K + H_2O \rightarrow KOH + H_2$ _____

5. $H_2SO_4 \rightarrow H_2O + SO_3$ _____

6. $C_5H_{12} + O_2 \rightarrow CO_2 + H_2O$ _____

7. $Na_2SO_4 + HCl \rightarrow NaCl + H_2SO_4$ _____

8. $Cl_2 + MgI_2 \rightarrow I_2 + MgCl_2$ _____

Complete *and* balance the following reactions. If a single displacement (replacement) reaction will not happen, write no reaction in place of the products.

9. $Al\ (s) + HCl\ (aq) \rightarrow$

10. $C_2H_6\ (g) + O_2\ (g) \rightarrow$

11. $Ag\ (s) + H_2O\ (l) \rightarrow$

12. $Pb(C_2H_3O_2)_2 + Na_2SO_4 \rightarrow$

Write balanced molecular, complete ionic, and net ionic equations for the following reactions. You may need to predict the products. Include states of matter in your answers.

13. Solutions of sodium hydroxide and magnesium chloride react to form aqueous sodium chloride and solid magnesium hydroxide.

14. Hydrogen sulfide gas reacts with a solution of nickel (II) nitrate.

15. Solutions of silver nitrate and iron (II) chloride react.