**Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Period\_\_\_\_\_Date\_\_\_\_\_\_\_\_\_\_**

**Chemical Reaction Review**

1. **List some signs that would indicate a chemical reaction has occurred.**
2. **What must be added to break chemical bonds?**
3. **What are the chemicals on the LEFT side of an equation called?**
4. **What are the chemicals on the RIGHT side of an equation called?**
5. **What does the law of conservation of mass say about how much energy I start with in the reactants and how much energy I end up with in the products?**
6. **If I start with 10 hydrogen atoms on the react side of a chemical equation, how many must I have on the product side?**
7. **What is the difference between an endothermic and exothermic reaction?**
8. **Label the reaction profiles below as endothermic or exothermic.**

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1. **How many reactants will I have in a synthesis reaction? # products?**
2. **How many reactants will I have in a decomposition reaction?**
3. **What occurs during a single replacement reaction?**
4. **What happens during a double replacement reaction?**
5. **What will be one reactant in all combustion reaction? What are the two products?**
6. **What is a reaction rate?**
7. **What are ways to increase reaction rate?**
8. **What are ways to decrease reaction rate?**
9. **What is a catalyst? Does is participate in the reaction as a product, reactant, or neither?**
10. **What does the Law of Definite Proportions say?**

**Balancing Reaction Practice & Type of Reaction Practice:**

1. **\_\_\_\_N2 + \_\_\_\_H2** **🡪 \_\_\_\_\_\_NH3** **Type:**
2. **\_\_\_\_P2O5**🡪 **\_\_\_\_\_P + \_\_\_\_\_O2 Type:**
3. **\_\_\_\_Na + \_\_\_\_H(OH) 🡪 \_\_\_Na(OH) + \_\_\_\_H2 Type:**
4. **\_\_\_\_C6­H12O6 + \_\_\_\_O2 🡪 \_\_\_\_CO2 + \_\_\_\_H2O Type:**
5. **\_\_\_\_K + \_\_\_\_MgBr 🡪 \_\_\_\_KBr + \_\_\_\_Mg Type:**
6. **\_\_\_FeCl3 + \_\_\_\_Na(OH) 🡪 \_\_\_Fe(OH)3 + \_\_\_\_NaCl Type:**
7. **\_\_\_MgCl2 + \_\_\_\_Li2(CO3) 🡪 \_\_\_\_Mg(CO3) + \_\_\_\_LiCl Type:**
8. **\_\_\_C6H12 + \_\_\_O2 🡪 \_\_\_\_CO2 + \_\_\_\_H2O Type:**
9. **\_\_\_\_Ca(CO3) 🡪 \_\_\_CaO + \_\_\_CO2 Type:**
10. **\_\_\_\_C2H2 + \_\_\_\_H2 🡪 \_\_\_\_\_C2H6 Type:**

**Product Prediction Practice: ( YOU DO NOT HAVE TO BALANCE THESE)**

1. **NaI + CaCl2 🡪 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Type: Double Replacement**
2. **Ag + CuSO4 🡪\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Type: Single Replacement**
3. **MgO2 🡪 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Type: Decomposition**
4. **Ca + N2 🡪 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Type: Synthesis**
5. **C4H8 + O2 🡪 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Type: Combustion**

**Writing chemical equations from word problems.**

1. **One molecule of propane (C3H8) reacts with 5 molecules of O2 to form 3 molecules of O2 and 4 molecules of H2O.**
2. **Two units of AlBr3 and 3 units of MgO react to form 2 units of Al(OH)2 and 3 units of MgBr2.**