**Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Hour:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Follow Up What is a Chemical Reaction?**

**Questions**

1. What are the four signs of a chemical change? Give an example of each from the reactions observed.

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1. Classify the following everyday process as chemical or physical changes:
	1. Nail rusts \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
	2. Ice melts \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
	3. Wood burns\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
	4. Banana ripens\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
	5. Sugar dissolves in water\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. Which one was your favorite chemical reaction and why? Can you predict what you made? If yes , try to identify the product(s).

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Writing Reactions- Write the following reactions in symbol form.**

1. Iron metal added to aqueous copper (II) sulfate yields aqueous Iron (II) sulfate and copper metal.
2. Aqueous potassium chloride is mixed with aqueous silver nitrate to make aqueous potassium nitrate and aqueous silver chloride.
3. zinc metal reacts with oxygen from the air to make solid zinc oxide
4. Aqueous aluminum sulfate and barium chloride dissolved in water yields aluminum chloride aqueous and aqueous barium sulfate.
5. Solid Aluminum oxide breaks down to make solid aluminum and Gaseous oxygen.
6. Gaseous Phosphorus combines with oxygen gas to make liquid diphosphorus pentoxide.
7. Aluminum metal reacts with iron (II) oxide powder to produce aluminum oxide solid and iron metal.
8. Ammonia gas (NH3) plus oxygen gas yields nitrogen monoxide gas plus water vapour.
9. Aqueous sodium hydroxide and carbon dioxide gas yields sodium carbonate solution and liquid water.

**Write the following reactions in sentence form**

1. NaOH(aq) + HCl(aq) 🡪 NaCl(aq) + H2O(l)
2. 2H2 (g) + O2(g) 🡪 2H2O(l)
3. Mg (s) + CuCl2(aq)🡪 MgCl2(aq) + Cu (s)
4. CuCl2(aq) + 2 NH4OH (aq) 🡪 Cu(OH)2(aq) + 2NH4Cl (aq)