



OBJECTIVE 8:

Identify patterns in synthesis, decomposition, displacement reactions and the reactions of acids

SUCCESS CRITERIA 2:

I can use a solubility table to **determine** whether a precipitate is formed in a displacement reactions

Use the solubility table to **determine** whether the following compounds is soluble or insoluble:

- | | | | |
|-----------------------|----------------------|-------------------------------|----------------------|
| 1. Lead iodide | <input type="text"/> | 6. $\text{Cu}(\text{OH})_2$ | <input type="text"/> |
| 2. Calcium hydroxide | <input type="text"/> | 7. $\text{Al}(\text{NO}_3)_3$ | <input type="text"/> |
| 3. Silver chloride | <input type="text"/> | 8. ZnCO_3 | <input type="text"/> |
| 4. Iron sulfate | <input type="text"/> | 9. Na_2SO_4 | <input type="text"/> |
| 5. Ammonium carbonate | <input type="text"/> | 10. HgI_2 | <input type="text"/> |

Use the solubility table to **determine** whether a precipitate is formed when the following compounds are formed in a chemical reaction:

- | | | | |
|---------------------|----------------------|------------------------------|----------------------|
| 1. Copper carbonate | <input type="text"/> | 6. CuCO_3 | <input type="text"/> |
| 2. Iron hydroxide | <input type="text"/> | 7. $\text{Fe}(\text{OH})_2$ | <input type="text"/> |
| 3. Lead sulfate | <input type="text"/> | 8. PbSO_4 | <input type="text"/> |
| 4. Silver bromide | <input type="text"/> | 9. AgBr | <input type="text"/> |
| 5. Zinc hydroxide | <input type="text"/> | 10. $\text{Zn}(\text{OH})_2$ | <input type="text"/> |

Use the solubility table to help **determine** the state symbols in the following chemical reaction :

11. 2AgNO_3 + ZnSO_4 $\rightarrow$ Ag_2SO_4 + $\text{Zn}(\text{NO}_3)_2$
12. $\text{Pb}(\text{NO}_3)_2$ + 2NaI $\rightarrow$ PbI_2 + 2NaNO_3
13. CuSO_4 + 2NaOH $\rightarrow$ $\text{Cu}(\text{OH})_2$ + Na_2SO_4
14. FeCl_3 + $3\text{NH}_4\text{OH}$ $\rightarrow$ $\text{Fe}(\text{OH})_3$ + $3\text{NH}_4\text{Cl}$
15. $\text{Ca}(\text{NO}_3)_2$ + Na_2CO_3 $\rightarrow$ CaCO_3 + 2NaNO_3