

**CHEMICAL REACTIONS WORKSHEET I**

1.  $\text{Zn} + 2\text{HCl} \rightarrow \text{ZnCl}_2 + \text{H}_2$  Single Replacement
2.  $2\text{H}_2\text{O} \rightarrow 2\text{H}_2 + \text{O}_2$  Decomposition
3.  $2\text{NaOH} + \text{Pb}(\text{NO}_3)_2 \rightarrow 2\text{NaNO}_3 + \text{Pb}(\text{OH})_2$   
Double Replacement
4.  $\text{H}_2\text{O} + \text{CO}_2 \rightarrow \text{H}_2\text{CO}_3$  Already balanced, Synthesis
5.  $2\text{C}_4\text{H}_{10} + 13\text{O}_2 \rightarrow 8\text{CO}_2 + 10\text{H}_2\text{O}$  Combustion
6.  $\text{CuSO}_4 + \text{Mg} \rightarrow \text{MgSO}_4 + \text{Cu}$  Already balanced, Single Replacement
7.  $2\text{C}_6\text{H}_6(\text{l}) + 15\text{O}_2(\text{g}) \rightarrow 12\text{CO}_2(\text{g}) + 6\text{H}_2\text{O}(\text{l})$  Combustion
8.  $\text{H}_2\text{O}(\text{l}) + \text{SO}_2(\text{g}) \rightarrow \text{H}_2\text{SO}_3(\text{aq})$  Already balanced, Synthesis
9.  $\text{Na}_2\text{CO}_3(\text{aq}) + 2\text{NH}_4\text{OH}(\text{aq}) \rightarrow (\text{NH}_4)_2\text{CO}_3(\text{aq}) + 2\text{NaOH}(\text{aq})$  Double Replacement
10.  $(\text{NH}_4)_2\text{CO}_3(\text{aq}) \rightarrow 2\text{NH}_3(\text{g}) + \text{H}_2\text{O}(\text{l}) + \text{CO}_2(\text{g})$  Decomposition
11.  $4\text{HNO}_3(\text{aq}) + \text{Cu}(\text{s}) \rightarrow \text{Cu}(\text{NO}_3)_2(\text{aq}) + 2\text{NO}_2(\text{g}) + 2\text{H}_2\text{O}(\text{l})$  Synthesis (sort of)
12.  $\text{Pb}(\text{NO}_3)_2(\text{aq}) + 2\text{NaCl}(\text{aq}) \rightarrow \text{PbCl}_2(\text{s}) + 2\text{NaNO}_3(\text{aq})$  Double Replacement
13.  $2\text{Fe}(\text{s}) + \text{O}_2(\text{g}) \rightarrow 2\text{FeO}(\text{s})$  Synthesis, Combustion
14.  $4\text{Fe}(\text{s}) + 3\text{O}_2(\text{g}) \rightarrow 2\text{Fe}_2\text{O}_3(\text{s})$  Synthesis, Combustion
15.  $4\text{FeO}(\text{s}) + \text{O}_2(\text{g}) \rightarrow 2\text{Fe}_2\text{O}_3(\text{s})$  Synthesis, Combustion
16.  $\text{Au}_2\text{S}_3(\text{s}) + 3\text{H}_2(\text{g}) \rightarrow 2\text{Au}(\text{s}) + 3\text{H}_2\text{S}(\text{g})$  Single Replacement