

**Chemistry Objective 6.02**  
**Worksheet – Balancing Equations**

**Identifying and Balancing Chemical Equations**

**Directions:** Identify each of the equations below as synthesis, decomposition, single replacement or double replacement.

1. $\text{HgO} \rightarrow \text{Hg} + \text{O}_2$	
2. $\text{NaCl} + \text{AgNO}_3 \rightarrow \text{NaNO}_3 + \text{AgCl}$	
3. $\text{Mg} + \text{HCl} \rightarrow \text{MgCl}_2 + \text{H}_2$	
4. $\text{Zn} + \text{H}_2\text{SO}_4 \rightarrow \text{ZnSO}_4 + \text{H}_2$	
5. $\text{NaOH} + \text{HCl} \rightarrow \text{NaCl} + \text{H}_2\text{O}$	
6. $\text{Al}_2(\text{SO}_4)_3 + \text{Ca}(\text{OH})_2 \rightarrow \text{Al}(\text{OH})_3 + \text{CaSO}_4$	
7. $\text{H}_2 + \text{O}_2 \rightarrow \text{H}_2\text{O}$	
8. $\text{Cl}_2 + \text{NaBr} \rightarrow \text{NaCl} + \text{Br}_2$	
9. $\text{Zn} + \text{CuSO}_4 \rightarrow \text{ZnSO}_4 + \text{Cu}$	
10. $\text{KClO}_3 \rightarrow \text{KCl} + \text{O}_2$	
11. $\text{H}_2\text{O} + \text{Fe} \rightarrow \text{Fe}_2\text{O}_3 + \text{H}_2$	
12. $\text{Ca}(\text{OH})_2 + \text{HNO}_3 \rightarrow \text{Ca}(\text{NO}_3)_2 + \text{H}_2\text{O}$	
13. $\text{Na}_2\text{O} + \text{CO}_2 \rightarrow \text{Na}_2\text{CO}_3$	
14. $\text{H}_2 + \text{N}_2 \rightarrow \text{NH}_3$	