

## Chapter 8 – Study Guide

Reaction	Trigger	Mechanism	Miscellaneous
Double Displacement	C + C	Swap 1 copy of each cation	<ul style="list-style-type: none"> <li>• Must form (s) or (g)</li> <li>• Memorize 3 common decompositions</li> </ul>
Acid/Base	Acid + Base	Swap 1 copy of each cation + heat	<ul style="list-style-type: none"> <li>• Always occur!</li> <li>• Acids = H<sup>+</sup></li> <li>• Bases = OH<sup>-</sup></li> </ul>
Single Displacement	E + C	Swap cation or anion	<ul style="list-style-type: none"> <li>• Activity Series</li> <li>• More active E wants to be in the compound</li> </ul>
Combustion	Anything + O <sub>2</sub> (g)	→ ___ CO <sub>2</sub> (g) + ___ H <sub>2</sub> O (g) + heat	<ul style="list-style-type: none"> <li>• Memorize</li> <li>• Balance</li> </ul>

### 8 Steps for Balancing Reactions

1. Determine the type of Reaction
2. Does it occur (SD and DD)?
3. Mechanism (Do the reaction)
4. Balance Charges
5. Diatomics
6. States
7. Miscellaneous
8. Balance the Reaction

### Things to Memorize

1. States – Elements (11 – (g), 2 – (l))
2. 8 common molecular gases
3. Diatomics
4. 3 Decomposition Reactions