## 6.1a Types of Reaction 5 Science 10 Notes

Types of Reactions	
There are several different types of reactions that you will need to be able to identify:	
Synthesis (Combination) Reactions	
Involve reactants and products	* only one product
<ul> <li>General formula for reaction:</li> <li>element + element -&gt; compound.</li> </ul>	
• Examples $A + B \rightarrow AB$ $2Na + Cl_2 \rightarrow 2NaCl$	$Fe + O_2 \rightarrow Fe_2O_3$
$2Mg + O_2 \rightarrow 2MgO$	
Decomposition Reactions	* only 1 readant.
Involve <u></u> reactants and <u>2</u> products	
<ul> <li>General formula for reaction:</li> <li>Compound -&gt; element + compound/el</li> </ul>	ement.
• Examples $AB \rightarrow A + B$ $2H_2O \rightarrow 2H_2 + O_2$	
Single Replacement Reactions	
Involve _ 2_ reactants and _ 2_ products	
When a reactive <u>element</u> and a compound react to produce <u>compound</u> and <u>different</u> element,	
• General formula for reaction: $\circ$ If A is a metal A + BC $\rightarrow$ AC + B	
<ul> <li>○ If A is a non-metal</li> <li>A + BC → BA + C </li> </ul>	
Examples $Cu + Ag NO_3 \rightarrow Cu (NO_3)_2 + Ag$	
$F_2 + 2 N_G I$	>2NaF + I2

