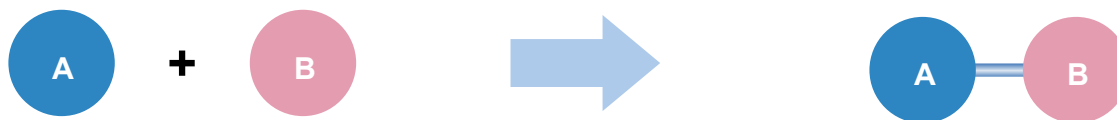
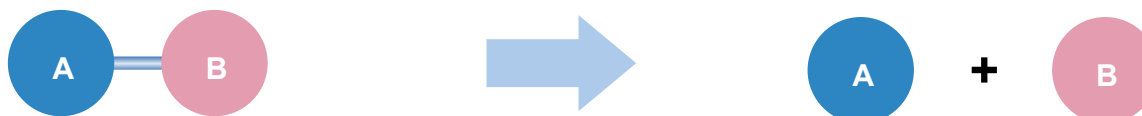


Four Basic Types of Chemical Reaction

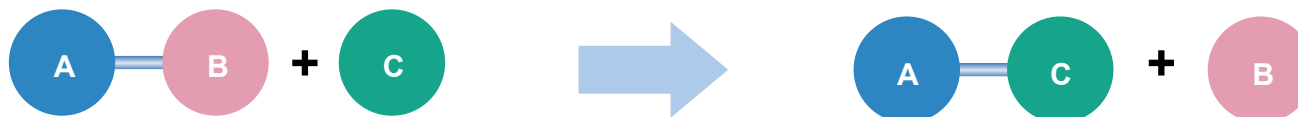
1 Synthesis



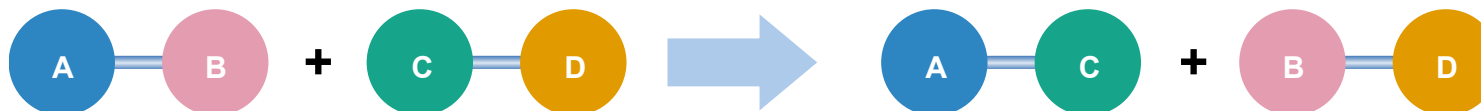
2 Decomposition



3 Single Replacement



4 Double Replacement



Types	Description	Exmample
Synthesis Reactions	Elements are joined together.	$2\text{H}_2 + \text{O}_2 \rightarrow 2\text{H}_2\text{O}$
Decomposition Reactions	A compound breaks into parts.	$2\text{H}_2\text{O} \rightarrow 2\text{H}_2 + \text{O}_2$
Single Displacement Reactions	A single element replaces an element in a compound.	$\text{Zn} + 2\text{HCl} \rightarrow \text{H}_2 + \text{ZnCl}_2$
Double Displacement Reactions	An element from each of two compounds switch places.	$\text{H}_2\text{SO}_4 + 2\text{NaOH} \rightarrow \text{Na}_2\text{SO}_4 + 2\text{H}_2\text{O}$