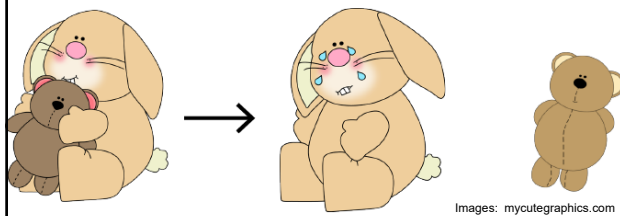
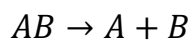


Decomposition Reaction

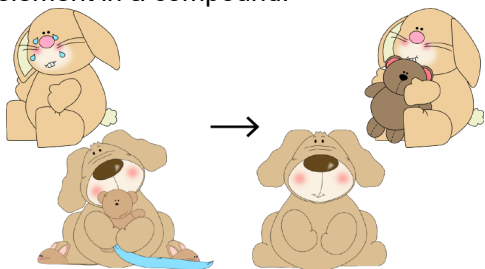
- A compound breaks down into two or more compounds or elements.





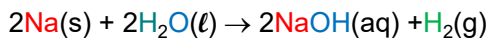
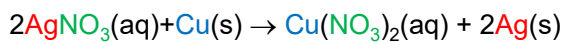
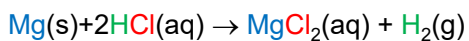
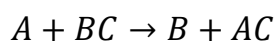
Single Replacement Reaction or Single Displacement Reaction

- A single element replaces or displaces an element in a compound.

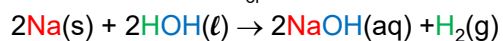


A

B C

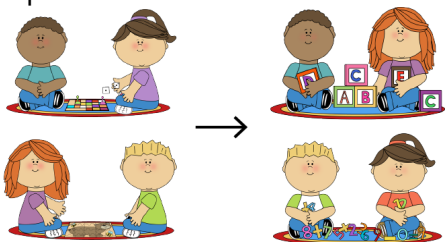


or



Double Replacement Reaction or Double Displacement Reaction

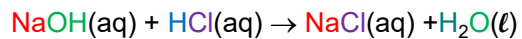
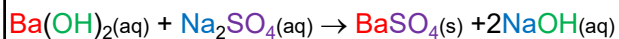
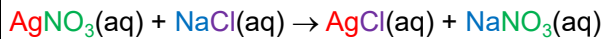
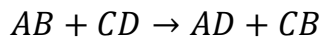
- The cations of two different compounds exchange places, forming two new compounds.



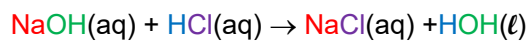
Images: mycutegraphics.com

A B

C D



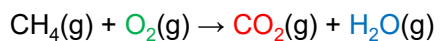
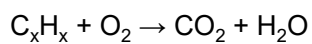
or



Combustion Reaction

- A compound with carbon and hydrogen reacts with oxygen to produce carbon dioxide (CO₂) and water (H₂O).





- The products of a combustion reaction are ALWAYS carbon dioxide and water.

Summary

Reaction Type	Form
Synthesis	$A + B \rightarrow AB$
Decomposition	$AB \rightarrow A + B$
Single Replacement/Displacement	$A + BC \rightarrow B + AC$
Double Replacement/Displacement	$AB + CD \rightarrow AD + CB$
Combustion	$C_xH_x + O_2 \rightarrow CO_2 + H_2O$
