

## Types of Reactions Project

- Choose 1 balanced equation example for each main type of reaction.
  - These must be different from the ones presented in the lesson.*
    - Synthesis**
    - Decomposition**
    - Single displacement**
    - Double displacement**
- Represent each reaction in **2 different ways**. Each representation format can only be used **ONCE**. These could include but are not limited to:
  - Cartoons
  - Diagrams
  - Symbols
  - Molecular models
  - Craft models/representations
  - (SHORT)** Story
  - Analogy
  - Chart/summary table
  - Word equation
  - Meme
  - ....

### Be creative!

- Provide a specific industrial/ “real” world example for both **complete & incomplete combustion**.
  - Include balanced equations & names of molecules
  - Indicate **where** this reaction takes place or **where** fuel is found and **what** it is used for
  - You may **not** use cellular respiration or the combustion of methane

Ex.  $\text{CH}_4 + 2\text{O}_2 \rightarrow \text{CO}_2 + 2\text{H}_2\text{O} + \text{energy}$   
 Methane is a major component of natural gas. It is burned to heat homes.

S, D, SD, DD LAYOUT:

<div style="border: 1px solid black; display: inline-block; padding: 5px; margin-bottom: 10px;">           Name type of reaction Sample balanced equation         </div> <div style="display: flex; justify-content: space-around;"> <div style="width: 45%; text-align: center; padding: 10px;">Representation</div> <div style="width: 45%; text-align: center; padding: 10px;">Representation</div> </div>	
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### Marking Rubric

Type of Reaction	Balanced Equation	Clear & Correct Atom Count	Key Characteristic of Reaction Evident
Synthesis	1	1 2	1 2
Decomposition	1	1 2	1 2
Single Displacement	1	1 2	1 2
Double Displacement	1	1 2	1 2
	Specific Example		Where & What
Combustion	1		1 2
- complete	1		1 2
- incomplete			
TOTAL			/26