

Types of Reactions Project

Synthesis, Decomposition, Single Displacement & Double Displacement:

- Choose 1 balanced equation example for each **4 main types** of reaction.
 - These must be different from the ones in the lesson.*
 - Synthesis**
 - Decomposition**
 - Single displacement**
 - Double displacement**
- Represent each reaction in **a different way**. Each representation format can only be used **ONCE**.
- Each representation must demonstrate the **Law of Conservation of mass**.

Ex. Clearly show difference between coefficients and subscripts

Be creative!

Combustion Examples:

- Provide a specific industrial/ “real” world example for both **complete & incomplete combustion**.
NOT REPRESENTATIONS OR MODELS
 - Include balanced chemical equations & word equations
 - 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.

Submit **ONE file** with all information to **Edsby** under the assessment entry.

Marking Rubric

Type of Reaction	Balanced Equation	Clear & Correct Atom Count	Key Characteristic of Reaction Evident	
Synthesis	1	1	1	
Decomposition	1	1	1	
Single Displacement	1	1	1	
Double Displacement	1	1	1	
	Specific Example		Where & What	
Combustion	1		1	2
- complete	1		1	2
- incomplete				
TOTAL /18				