



I Can Statement - Year 7

Chemical Reactions

Unit/Topic Overview	Pre-taught Vocabulary	
In this topic, chemical change is a key idea in science that helps us understand how substances interact to form entirely new materials. You will learn that during a chemical reaction, bonds between atoms break and reform, transforming starting reactants into chemically distinct products. Chemical reactions also help us understand energy exchanges—such as exothermic and endothermic processes—and factors that alter the rate of reaction. By studying chemical reactions, you will be able to better explain everyday changes like rusting, burning, and cooking.	Chemical Reaction	Physical Change
	Reactant	Thermal Decomposition
	Word Equation	Combustion
	Catalyst	Acid

RAG Rating:		Start	End
1.	I am able to differentiate between physical changes (reversible, like melting ice) and chemical changes (irreversible, where new substances are formed).		
2.	I can identify that a chemical reaction has occurred by observing and recording specific signs: color change, gas production (fizzing), temperature change, or the formation of a precipitate.		
3.	I can write basic word equations in the format: Reactant A + Reactant B → Product C. They must understand that the arrow means "reacts to form," not "equals."		
4.	I can explain that mass is never lost or gained in a chemical reaction; atoms are simply rearranged. They should be able to prove this using simple mass-balance data from an experiment.		
5.	I can define combustion as a reaction with oxygen and identify the products (typically an oxide, and often CO ₂ and H ₂ O when burning fuels).		
6.	I can explain how some compounds break down into simpler substances when heated (e.g., heating copper carbonate to produce copper oxide and carbon dioxide).		
7.	I can recognize that chemical reactions involve energy transfers. They must be able to identify an exothermic reaction (gets hotter) and an endothermic reaction (gets colder) based on experimental temperature readings.		
8.	I can identify the three components of the "Fire Triangle" and explain that combustion is a specific type of oxidation that releases energy.		
9.	I can identify reactions that transfer energy to the surroundings, resulting in a temperature increase (e.g., hand warmers or magnesium in acid).		