

Science KS3 Assessment Framework

	Beginning Grade 1	Working Towards Grade 2-3	Expected Grade 4-5	Exceeding Grade 6-7	Excelling Grade 8-9
Chemical Reactions	<p>I can:</p> <p>Identify reactants and products from a word equation</p> <p>Name a fuel</p> <p>Name 1 fossil fuel</p> <p>To state that exothermic and endothermic reactions are linked with temperature changes</p>	<p>I can:</p> <p>write word equations from information given about a chemical reaction</p> <p>state that fuels are you used to supply energy</p> <p>Name 3 fossil fuels</p> <p>State what thermal decomposition is</p> <p>Safely carry out a practical of the thermal decomposition of a metal carbonate</p> <p>State that in exothermic reactions the temperature increases</p> <p>State that in endothermic reactions the temperature decreases</p> <p>Carry out a practical and use the results to classify the reaction as exothermic or endothermic</p>	<p>I can:</p> <p>State that the mass of reactants in a chemical reaction equals the mass of products formed-known as conservation of mass</p> <p>state that fuels react with oxygen in a combustion reaction to produce energy.</p> <p>Describe fuels as a chemical store of energy</p> <p>Explain what a non-renewable fuel is and give examples</p> <p>State energy transfers in combustion reactions</p> <p>Calculate the masses of reactants or products</p> <p>Explain observations about mass in physical and chemical reactions</p> <p>Give examples of exothermic and endothermic changes</p> <p>Describe bond making as an exothermic process and bond breaking as endothermic</p>	<p>I can:</p> <p>Use diagrams to show why the mass of reactants = mass of products</p> <p>Write a word equation for a a hydrocarbon fuel reacting with oxygen</p> <p>Explain what a renewable fuel is and give examples</p> <p>Write word equations for thermal decomposition reactions</p> <p>Use partial diagrams to show what happens in a decomposition reaction</p> <p>Predict the products of a decomposition reaction of a given metal carbonate</p> <p>Use symbols to represent chemical reactions</p> <p>Identify whether an energy profile diagram is showing an exothermic or endothermic reaction</p> <p>Use energy level diagrams to explain energy changes in changes of state and chemical reactions</p> <p>State what happens to chemical bonds during exothermic and endothermic reactions</p> <p>State what a catalyst is</p>	<p>I can:</p> <p>Use partial diagrams to describe what happens in a combustion reaction</p> <p>Explain advantages of using renewable fuels such as hydrogen</p> <p>Predict the products of a decomposition reaction of a given metal nitrate</p> <p>Balance symbol equations.</p> <p>Explain why balancing symbol equations is necessary.</p> <p>State whether the reactants or products have more energy in an exothermic/endothermic reaction</p> <p>Use bond energy values to predict if a reaction is endothermic or exothermic.</p>