

Topics in this cycle: Acids and Alkali, Energy changes	Taught: Autumn 2	Year Group: 8
Key knowledge/concepts to be learnt ('Tell me about...')		Websites/blogs/YouTube links and further reading to deepen and consolidate learning
<ul style="list-style-type: none"> • What are chemical reactions? • Define chemical and physical changes. • Describe how you would know if a chemical reaction has taken place. • • What are acids and alkali? • State the pH of acids and alkalis. • Give examples of acids and alkalis • Identify substances ad acids and alkalis. • What is neutralisation? • Define a neutralisation reaction. • Give examples of neutralisation reactions. • Compare indigestion remedies. • What is a salt? • Describe how salts are made. • Identify the acids and alkalis that make specific salts. • State the names of different salts. • • What are exothermic and endothermic reactions? • Define exothermic and endothermic reactions. • Give examples of exothermic and endothermic reactions. • Drawn and label energy profile diagrams for exothermic and endothermic reactions. • Calculate bond energies for exothermic and endothermic reactions. 		<p>Chemical Reactions Chemical Reactions Video For Kids 6th, 7th & 8th Grade Science (generationgenius.com)</p> <p>Acids and Alkalis Jon Chase investigates how acids and alkalis affect us Chemistry - Bitesize Science - YouTube Household Acids and Bases (sciencenotes.org)</p> <p>Making Table Salt Making table salt using sodium metal and chlorine gas - YouTube</p> <p>Exothermic and Endothermic Reactions Jon Chase investigates endothermic and exothermic reactions Chemistry - Bitesize Science - YouTube</p>

Key Vocabulary and Definitions To Be Learnt		What Will The Assessment Look Like?
Acids	Substances with a pH of 0-6.	Extended writing – Describe how to make soluble salt. End of Unit test: 25 marks <ul style="list-style-type: none"> • Short answer questions • Multiple choice • Extended writing
Alkalis	Substances with a pH of 8-14.	
Exothermic	Reactions that release energy to the surroundings increasing the temperature of the surroundings.	
Endothermic	Reactions that remove energy from the surroundings decreasing the temperature of the surroundings.	
pH scale	A scale that ranges from 0-14 and determine how acidic or alkaline a substance in.	
Neutral	A substance with a pH of 7.	Acids and Alkali Rainbow Acid and Base Rainbows - Activity - TeachEngineering Exploding lunch Bag The Exploding Lunch Bag Science Experiment by AiyonaA TPT (teacherspayteachers.com) Follow the acid and alkali maze Chemistry Acids and Bases Maze Activity by The STEM Master TPT (teacherspayteachers.com)
Neutralisation	A reaction between an acid and an alkali. The products are neutral.	
Indicator	Substance that changes colour in the presence of acids or alkalis.	
Strong Acids	Ionises completely in water to give H ⁺ ions.	
Strong alkalis	Ionises completely in water to give OH ⁻ ions.	