KEY STAGE 4 – YEAR 10 – CHEMISTRY
CURRICULUM MAP

Autumn Term		Spring Term		Summer Term	
Autumn 1	**Autumn 2**	**Spring 1**	**Spring 2**	**Summer 1**	**Summer 2**
Key Themes	**Key Themes**	**Key Themes**	**Key Themes**	**Key Themes**	**Key Themes**
Calculations (separate science component)	**Structure and Bonding**	**Electrolysis**	**Energy Changes**	**Rate of Reaction and Equilibrium**	**Crude Oil and Fuels**
Assessment / Composite Tasks	**Assessment / Composite Tasks**	**Assessment / Composite Tasks**	**Assessment / Composite Tasks**	**Assessment / Composite Tasks**	**Assessment / Composite Tasks**
• Masses, moles and reactions • Percentage yield • Percentage atom economy • Concentrations and titrations • Volumes of gases	• States of matter • Ionic bonding and crystal lattices • Covalent bonding and simple molecules • Diamond and graphite • Fullerenes and graphene • Metals • Nanoparticles	• Changes at the electrodes • Electrolysis of molten halides • Aluminium extraction • Electrolysis of aqueous solutions	• Exothermic and endothermic • Reaction profile diagrams • Bond energy calculations • Electrochemical cells and batteries • Fuel cells	• Collision theory • Factors that affect rate • Measuring rate • Catalysts • Reversible reactions • Dynamic equilibrium and Le Chatelier's Principle	• Fractional distillation of crude oil • Hydrocarbons • Burning fuels • Cracking

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