

Curriculum Sequencing Grid: **Triple Chemistry Single Award**

Year 10	Term 1	Term 2	Term 3
Unit (Tablet in 39-week plan)	<ul style="list-style-type: none"> • C5.3 – Quantitative Chemistry • C5.4 – Chemical Changes 	<ul style="list-style-type: none"> • C5.5 – Energy Changes • C5.6 – Rates of Reaction • C5.7 Organic Chemistry 	<ul style="list-style-type: none"> • C5.9 Atmosphere
Key Retainable Knowledge (Required for Y11/13) <ul style="list-style-type: none"> • What... How.... Why.... 	<ul style="list-style-type: none"> • Mathematical skills and calculations • Remembering and application of formulae/units • Relative formula mass • Titrations • Percentage Yield • Word and symbol equations • Reactions and products • Writing and reading formulae • Everyday reactions 	<ul style="list-style-type: none"> • Exothermic • Endothermic • Everyday reactions • Use of symbols • Graph analysis • Particle theory • Carbon chemistry 	<ul style="list-style-type: none"> • Changes to carbon dioxide levels • Combustion of fuels • Evolution of plants and animals
Key Technical Vocabulary (To be modelled and deliberately practiced in context.)	<ul style="list-style-type: none"> • Moles, Relative formula mass, yield, atom economy, concentration, gas volume • Reaction, Reactants, Products, Reversible, Equilibrium, Titrations 	<ul style="list-style-type: none"> • Neutralisation, displacement, exothermic, endothermic, Cells, fuel cells • Temperature, Surface area, catalyst, concentration, equilibrium, rate 	<ul style="list-style-type: none"> • Climate change, carbon dioxide, oxygen, photosynthesis, respiration, combustion
Opportunities for Reading	<ul style="list-style-type: none"> • Researching different types of engineering jobs and how these links to different parts of this topic 	<ul style="list-style-type: none"> • The news in terms of recent updates about energy resources 	<ul style="list-style-type: none"> • History of the atmosphere and theories of the changes

Curriculum Sequencing Grid: **Triple Chemistry Single Award**

Developing Cultural Capital (exposure to very best- essential knowledge and skills of educated citizens – appreciation of human creativity and achievement.)	<ul style="list-style-type: none"> • Job Links = chemical analyst, chemical engineering, mechanical engineering • Appreciation of human creativity and achievement = Avogadro's discoveries 	Job Links = chemical engineering, food production	<ul style="list-style-type: none"> • Job Links = environmental chemistry
Cross Curricular Links (Authentic Connections)	<ul style="list-style-type: none"> • Maths – formula: application of formula and units, rearranging formula • Maths – line graphs: drawing and interpreting 	Maths – formula: application of formula and units, rearranging formula	<ul style="list-style-type: none"> • Maths – line graphs: drawing and interpreting
Key Assessment	<ul style="list-style-type: none"> • End of Unit Tests 	<ul style="list-style-type: none"> • End of Unit Tests 	<ul style="list-style-type: none"> • End of Unit Tests • Y10 Mocks
How Science Work Skills in Science	<ul style="list-style-type: none"> • These skills will continuously throughout the year, some, or all of which will be covered within each topic <ul style="list-style-type: none"> ○ Variables ○ Equipment ○ Risk assessments ○ Writing a method ○ Presenting data (bar charts and line graphs) ○ Interpreting data ○ Types of error (measuring, systematic, random) ○ Equations, calculations, and units ○ Evaluating ○ Models 		

Curriculum Sequencing Grid: **Triple Chemistry Single Award**

Year 11	Term 1	Term 2	Term 3
Unit (Tablet in 39-week plan)	<ul style="list-style-type: none"> C5.6-9 recap 	<ul style="list-style-type: none"> C5.10 - Resources 	<ul style="list-style-type: none"> Revision
Key Retainable Knowledge (Required for Y11/13) <ul style="list-style-type: none"> What... How.... Why.... 	<ul style="list-style-type: none"> Word and symbol equation Chemical formulae Graph analysis Particle theory Carbon chemistry Collision theory Haber process 	<ul style="list-style-type: none"> Required practical skills Economic problems with producing enough potable water globally Oxidation and preventative measures 	<ul style="list-style-type: none"> EVERYTHING!
Key Technical Vocabulary (To be modelled and deliberately practiced in context.)	<ul style="list-style-type: none"> chromatography, spectroscopy, temperature, surface area, catalyst, concentration, equilibrium, rate, yield, equilibrium 	<ul style="list-style-type: none"> Potable water, renewable, non-renewable, finite 	
Opportunities for Reading	<ul style="list-style-type: none"> Researching different types of engineering jobs and how these links to different parts of this topic 	<ul style="list-style-type: none"> Carbon Capture 	
Developing Cultural Capital (exposure to very best- essential knowledge and skills of educated citizens – appreciation of	<ul style="list-style-type: none"> Job Links = chemical analyst, chemical engineering, food production 	<ul style="list-style-type: none"> Job Links = environmental engineering, meteorologist, oil engineer, geologist 	

Curriculum Sequencing Grid: **Triple Chemistry Single Award**

human creativity and achievement.)			
Cross Curricular Links (Authentic Connections)	<ul style="list-style-type: none"> • Maths – formula: application of formula and units, rearranging formula • Maths – line graphs: drawing and interpreting, drawing tangents 	<ul style="list-style-type: none"> • Maths – formula: application of formula and units, rearranging formula 	
Key Assessment	<ul style="list-style-type: none"> • End of Unit Tests • Paper 1 Mocks 	<ul style="list-style-type: none"> • End of Unit Tests • Paper 2 Mocks 	<ul style="list-style-type: none"> • Real Exams!!!
How Science Work Skills in Science	<ul style="list-style-type: none"> • These skills will continuously throughout the year, some, or all of which will be covered within each topic <ul style="list-style-type: none"> ○ Variables ○ Equipment ○ Risk assessments ○ Writing a method ○ Presenting data (bar charts and line graphs) ○ Interpreting data ○ Types of error (measuring, systematic, random) ○ Equations, calculations, and units ○ Evaluating ○ Models 		