

### Chemistry - Triple Foundation

Topic	Paper	Content
(Paper 1 and 2)		Naming formula & compounds State symbols balanced symbol equation Word equations Equipment Testing for gases
SC3/4 – Atomic structure (Paper 1 and 2)		Atomic structure Electronic configuration Protons, neutrons and electrons Isotopes
SC5/6 - Bonding (1 and 2)		Covalent bonding, Dot and cross diagrams Chemical formula Giant structures
SC7 – Types of substances (Paper 1 and 2)		Properties of metals Conduction of electricity
SC9 – Calculations (Paper 2)		Conservation of mass
SC14 – Quantitative analysis (Paper 2)		Rates of reactions & the factors that affect the rate of reaction Concentration
SC17/18/19 – Groups / rates of reaction / heat energy (Paper 2)		Group 1 reactivity Group 7 and their properties Rates of reaction Factors affecting rate of reaction Exothermic changes Temperature change
SC20/21 – Fuels / Earth's atmosphere (Paper 2)		Earth's atmosphere & the changes in Earth's atmosphere. Climate change Combustion
SC22/23/24 – Hydrocarbons / Alcohols / Polymers (Paper 2)		Alkanes and alkenes Polymers, structure & properties
SC25/26 – Qualitative analysis (Paper 2)		Flame tests Test for ions Practical – identifying ions Particle size

	Surface area : Volume ratio
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### **Chemistry - Triple Higher**

<b>Topic</b>	<b>Paper</b>	<b>Content</b>
(Paper 1 and 2)		Hazard symbols Safety precautions balanced symbol equations Equipment Testing for gases
SC3/4 – Atomic structure (Paper 1 and 2)		Atomic structure Electronic configuration & properties Isotopes
SC5/6 - Bonding (1 and 2)		Covalent bonding, Dot and cross diagrams Chemical formula Giant structures
SC7 – Types of substances (Paper 1 and 2)		Properties of metals Conduction of electricity
SC9 – Calculations (Paper 2)		Conservation of mass Mass calculations / Yields Relative Atomic Mass calculations % mass calculations
SC14 – Quantitative analysis (Paper 2)		Rates of reactions & the factors that affect the rate of reaction Concentration
SC17/18/19 – Groups / rates of reaction / heat energy (Paper 2)		Group 1 & their properties Rates of reaction Factors affecting rate of reaction Endothermic / Exothermic changes Reaction profiles Bond energies calculations Temperature change
SC20/21 – Fuels / Earth's atmosphere (Paper 2)		Earth's atmosphere & the changes in Earth's atmosphere. Climate change Acid rain & affects Combustion Fractional distillation

SC22/23/24 – Hydrocarbons / Alcohols / Polymers (Paper 2)	Hydrocarbons & formulas Alkanes and alkenes Polymers, structure & properties & uses
SC25/26 – Qualitative analysis (Paper 2)	Flame tests Test for ions Practical – identifying ions Particle size / nanoparticles Surface area : Volume ratio