



Chemistry (Combined Science) Year 10 (3 lessons over 2 weeks)

	Topics											
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Term 1	How bonding and structure are related to the properties of substances			Structure and bonding of carbon				Chemical measurements, conservation of mass and the quantitative interpretation of chemical equations				
Term 2	Chemical measurements, conservation of mass and the quantitative interpretation of chemical equations			Use of amount of substance in relation to masses of pure substances				Reactivity of metals				
Term 3	Reactions of acids			Electrolysis				Exothermic and endothermic reactions				



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Term 1	Rate of reaction								Reversible reactions and dynamic equilibrium			
Term 2	Carbon compounds as fuels and feedstock			Purity, formulations and chromatography Identification of common gases						The composition and evolution of the Earth's atmosphere		
Term 3	Carbon dioxide and methane as greenhouse gases Common atmospheric pollutants and their sources			Using the Earth's resources and obtaining potable water Life cycle assessment and recycling								



Chemistry (Separate Science) Year 10 (5 lessons over 2 weeks)

Topics												
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Term 1	How bonding and structure are related to the properties of substances			Structure and bonding of carbon <i>Nanoparticles</i>				Chemical measurements, conservation of mass and the quantitative interpretation of chemical equations				
Term 2	Chemical measurements, conservation of mass and the quantitative interpretation of chemical equations			Use of amount of substance in relation to masses of pure substances <i>Titrations, gas volumes, yield, atom economy</i>				Reactivity of metals				
Term 3	Reactions of acids <i>Strong vs weak acids</i>			Electrolysis <i>Fuel cells</i>				Exothermic and endothermic reactions				



Chemistry (Separate Science) Year 11 (5 lessons over 2 weeks)

Topics												
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Term 1	Rate of reaction								Reversible reactions and dynamic equilibrium			
Term 2	Carbon compounds as fuels and feedstock <i>Further organic chemistry</i> <i>alcohols, carboxylic acids, esters, condensation polymers</i>			Purity, formulations and chromatography Identification of common gases <i>Chemical analysis</i>					The composition and evolution of the Earth's atmosphere Carbon dioxide and methane as greenhouse gases Common atmospheric pollutants and their sources			
Term 3	Using the Earth's resources and obtaining potable water Life cycle assessment and recycling			<i>Using resources, Haber Process, Fertilisers, Rusting, Ceramics and composites</i>								