



SIR GRAHAM BALFOUR SCHOOL

CURRICULUM OVERVIEW – KEY STAGE 5 CHEMISTRY



	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 12	Atomic Structure Amount of Substance Bonding Periodicity Properties of Group 2 Elements Properties of Group 7 Elements	Energetics and reaction energy Kinetics and reaction speed Introduction to Organic Chemistry Alkanes	Equilibrium constant (K_c) Redox equations and their application Alkenes Alcohols Organic analysis 1- test tube reactions, mass spectrometry and infrared spectroscopy			
Year 13	"Thermodynamics - Born-Haber cycles and Gibbs Free Energy Rate equations and determining a rate of reaction Equilibrium constant (K_p) Electrode Potentials and their Application" Optical Isomerism Aldehydes and Ketones Carboxylic acids and their derivatives	Acids, Bases and Buffers Properties of Period 3 elements Transition metals Aromatic chemistry - reactions of benzene rings and its derivatives Amines - preparation and properties Polymers Biochemistry - amino acids and DNA Organic Synthesis	Reactions of ions in aqueous solution Organic analysis 2- nuclear magnetic resonance spectroscopy (NMR) and chromatography Directed revision based on weaker areas			