

Themistry - Curriculum Overview

Year 12

Half Term:	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Topics:	3.1.1 Atomic structure,	3.1.3 Bonding,	3.3.2 Alkanes,	3.3.5 Alcohols,	Revision of AS Chemistry	3.3.7 Optical isomerism,
	3.1.3 Bonding	3.3.1 Introduction to	3.3.3 Halogenoalkanes,	3.3.6 Organic Analysis	and mock exams	3.3.8 Aldehydes and
	3.1.2 Amount of substance	Organic Chemistry,	3.3.4 Alkenes	3.1.7 Oxidation, reduction	Revision of AS Chemistry	ketones.
		3.3.2 Alkanes	3.1.5 Kinetics,	and redox equations,	and mock exams	3.1.9 Rate equations,
		3.1.4 Energetics	3.1.6 Chemical Equilibria,	3.2.1 Periodicity,		3.1.10 Equilibrium
			Le Chatelier's principle	3.2.2 Group 2 The alkaline		constant K _p for
			and K _c	Earth metals,		homogeneous systems,
				3.2.3 Group 7 (17) The		3.1.12 Acids and bases.
				Halogens		
Assessment & End Points:	Atomic structure and	Introduction to Organic	Alkenes and	Alcohols and Organic	Mock exams and final	Optical isomerism test,
	bonding test, Amount of	Chemistry test, Energetics	halogenoalkanes test,	analysis test, Redox	exams	Rate equations test,
	substance test, Assessed	test, Assessed	Kinetics and Equilibria	equilibria test,		Assessed Homeworks,
	Homeworks, RP1 - Make	Homeworks, RP2 -	test, Assessed	Periodicity, Group 2 and		RP7 - Measuring the rate
	up a volumetric solution	Measurement of an	Homeworks, RP3 -	group 7 test, Assessed		of reaction:
	and carry out a simple	enthalpy change,	Investigation of how the	Homework, RP4 - Carry		by an initial rate
	acid-base titration.	CPAC skills assessed when	rate of a reaction changes	out simple test-tube		method
	CPAC skills assessed when	each required practical is	with temperature.	reaction to identify:		• by a continuous
	each required practical is	completed.	CPAC skills assessed when	cations - group, NH4+,		monitoring method.
	completed.		each required practical is	anions - group 7 (halide		CPAC skills assessed when
			completed.	ions), OH ⁻ , CO ₃ ²⁻ , SO ₄ ²⁻ , RP5 - Distillation of a		each required practical is
						completed.
				product from a reaction, RP6 - Test for alcohol,		
				aldehyde, ketone and		
				carboxylic acid.		
				CPAC skills assessed when		
				each required practical is		
				completed.		



V Chemistry - Curriculum Overview

Year 13

Half Term:	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Topics:	3.3.9 Carboxylic acids and derivatives, 3.3.10 Aromatic Chemistry 3.1.12 Acids and bases,	3.3.11 Amines, 3.3.12 Polymers, 3.3.13 Amino acids, proteins and DNA, 3.3.14 Organic Synthesis. 3.1.8 Thermodynamics, 3.3.15 Nuclear Magnetic Resonance	3.3.16 Chromatography, 3.2.5 Transition metals. 3.1.11 Electrode potentials and electrochemical cells.	3.2.6 Reactions of ions in aqueous solution 3.2.4 Properties of Period 3 elements.	CONSOLIDATION, REVISION AND PREPARATION FOR FINAL EXAMS.	CONSOLIDATION, REVISION AND PREPARATION FOR FINAL EXAMS.
Assessment & End Points:	Carboxylic acids and derivatives test, Acids and bases test, Assessed Homeworks, RP9 - Investigate how pH changes when a weak acid reacts with a strong base and when a strong acid reacts with a weak base, "RP10 - Preparation of: • a pure organic solid and test of its purity • a pure organic liquid. " CPAC skills assessed when each required practical is completed.	Amine and amino acids test, Thermodynamics test, NMR Test Assessed Homeworks.	Chromatography test, Transition metals test, Electrochemistry test, Assessed Homeworks, RP8 - Measuring the EMF of an electrochemical cell, RP12 - Separation of species by thin-layer chromatography. CPAC skills assessed when each required practical is completed.	Reactions of ions in aqueous solution test Period 3 elements test, Assessed Homeworks, CPAC skills assessed when each required practical is completed.	Past exam paper-based assessments.	Final exams