

Subject: Chemistry

Date	Exams / Assessments	Teacher 1 (4)	Unit(s)	Teacher 2 (5)
01/09/2025		Atomic structure - Relative mass of subatomic particles - Atomic number & mass number - Mass spectroscopy Electron configuration - Ionisation energies	Bonding - Ionic bonding - Nature of covalent and dative covalent bonds - Metallic bonding - Bonding & physical properties - Types of crystalline substances - States of matter - Shapes of molecules - Bond polarity - Forces between molecules	
08/09/2025				
15/09/2025				
22/09/2025				
29/09/2025				
06/10/2025				
13/10/2025				
20/10/2025				
03/11/2025		Amount of substance - Chemical formulae - Balanced equations - The mole and Avogadro constant - Calculations involving gases - The Ideal Gas equation - Determining empirical & molecular formula - Combined calculations	Kinetics - Collision theory - Enthalpy profile diagrams - Distribution of molecular energies - Maxwell-Boltzmann Required Practical 3. Investigation of how the rate of reaction changes with temperature. Introduction to Organic Chemistry - Carbon – a unique element - Nomenclature - Isomerism	
10/11/2025				
17/11/2025				
24/11/2025				
01/12/2025				
08/12/2025				
15/12/2025				
05/01/2026				
12/01/2026		Assessment Weeks Amount of substance - Calculations involving solutions - Titrations - Indicators - Combined calculations Required Practical 1. Make up a volumetric solution and carry out a simple acid-base titration.	Assessment Weeks Alkanes - Physical properties - Fractional distillation - Industrial cracking - Combustion - Environmental consequences	
19/01/2026	Ass 1			
26/01/2026				
02/02/2026				
09/02/2026				
23/02/2026				
02/03/2026				
09/03/2026				
16/03/2026		Energetics - Enthalpy - Hess's Law Required Practical 2. Measurement of an enthalpy change.	Halogenoalkanes - Physical properties - Synthesis – free radical substitution - Nucleophilic substitution reactions - Elimination reactions Alkenes - E-Z isomerism - Addition Polymers - Electrophilic addition reactions - Industrial production of ethanol (from ethene)	
23/03/2026				
30/03/2026				
20/04/2026				
27/04/2026				
04/05/2026				
11/05/2026				
18/05/2026				
01/06/2026		Redox reactions - Oxidation state - Proper names & formulae - Oxidation & reduction - Redox - Half equations - Organic redox reactions - Combining half equations Group 2 - The Alkaline Earth Metals - Trends down Group 2 - Solubility of Group 2 hydroxides - Solubility of Group 2 sulfates - Uses of Group 2 elements & their compounds Periodicity - Blocks on the periodic table - Trends across Period 3	Equilibrium - Chemical equilibria - Le Chatelier's principle - Industrial examples - Equilibrium law - Equilibrium constant K_c - Calculating K_c - Using K_c - Effect of changing concentration - Effect of changing pressure & temperature Alcohols - Physical properties - Classification - Oxidation reactions - Elimination reactions Required Practical 5. Distillation of a product from a reaction.	
08/06/2026				
15/06/2026				
22/06/2026				
29/06/2026				
06/07/2026	EOY			
13/07/2026	Exams			
		Group 7 - The Halogens - Physical properties - Redox reactions of halogens - Identification of halide ions - Identification tests	Alcohols - Industrial production of ethanol (by fermentation) - Biofuels End of Year Exams	

		<u>End of Year Exams</u>	<u>Organic Synthesis</u>
		Required Practical 4. Identifying cations and anions in solution.	• Mass spectroscopy of organic compounds • Infrared spectroscopy • Chemical test identification of functional groups.
			Required Practical 6. Test for functional groups.