Year 10 Long Term Scheme of Learning 2024-25



Subject: Separate Science – Chemistry

Date	Unit(s)
	Chemistry Separates
02/09/2024	C2 Structure, Bonding, & the Properties of Matter
09/09/2024	Key ideas:
16/09/2024	States of matter
23/09/2024	Chemical bond – Ionic, covalent and metallic
30/09/2024	Properties of ionic compounds
07/10/2024	Properties of small molecules
14/10/2024	Properties of giant covalent compounds eg diamond & graphite
	Properties of metals and alloys
21/10/2024	Nanoparticles – inc graphene & fullerenes
04/11/2024	C4 Chemical Reactions – reactions of acids
11/11/2024	pH and neutralisation reactions.
18/11/2024	Required Practical – Making Soluble Salts
25/11/2024	C4'Chemical Reactions' - electrolysis
02/12/2024	Key ideas:
09/12/2024	Ionic compounds can be split into elements when molten or in solution using electricity
	Aluminium extraction using electrolysis Programmed Programme
	Required Practical –'Electrolysis of aqueous solutions' CE Non-read Characteristics CE Non-read
	C5 `Energy Changes' Key ideas:
16/12/2024	• Endothermic & exothermic reactions
' '	Required Practical – 'Temperature changes'
	Reaction profiles & bond energy
	Batteries & fuel cells
06/01/2025	Chemistry Assessment
13/01/2025	
20/01/2025	C3 'Quantitative Chemistry'
27/01/2025	Key ideas:

Year 10 Long Term Scheme of Learning 2024-25



Subject: Separate Science – Chemistry

Relative formula mass Amount of substance – moles Concentration of solutions Percentage yield Atom economy 24/02/2025 33/03/2025 10/03/2025 17/03/2025 24/03/2025 24/03/2025 31/03/2025 31/03/2025 Measuring rate of reaction methods Limiting reactants Factors affecting rates 21/04/2025 28/04/2025 05/05/2025 C6 'Rate & Extent of Chemical Reactions' – rate of reaction Key ideas: Factors affecting rates 21/04/2025 28/04/2025 05/05/2025 Required Practical – Disappearing Cross Required Practical – Disappearing Cross Required Practical – Measuring a gas volume Graphs & tangents Collision theory & catalystsC1 'The Periodic Table' Key ideas: Transition metals – catalysts		Balancing equations
- Concentration of solutions - Percentage yield - Atom economy 2a/02/2025 03/03/2025 10/03/2025 17/03/2025 24/03/2025 24/03/2025 31/03/2025 - Required Practical - 'Titrations' C6 'Rate & Extent of Chemical Reactions' - rate of reaction Key ideas: - Measuring rate of reaction methods - Limiting reactants - Factors affecting rates 21/04/2025 28/04/2025 28/04/2025 12/05/2025 12/05/2025 - Required Practical - Disappearing Cross - Required Practical - Disappearing Cross - Required Practical - Measuring a gas volume - Graphs & tangents Collision theory & catalystsC1 'The Periodic Table' Key ideas: - Transition metals - catalysts		Relative formula mass
Percentage yield Atom economy 24/02/2025 03/03/2025 10/03/2025 17/03/2025 24/03/2025 31/03/2025 31/03/2025 31/03/2025 24/03/2025 C6 'Rate & Extent of Chemical Reactions' – rate of reaction Key ideas: Measuring rate of reaction methods Limiting reactants Factors affecting rates 21/04/2025 28/04/2025 28/04/2025 05/05/2025 12/05/2025 12/05/2025 C6 'Rate & Extent of Chemical Reactions' – rate of reaction Key ideas: Required Practical – Disappearing Cross Required Practical – Measuring a gas volume Graphs & tangents Collision theory & catalystsC1 'The Periodic Table' Key ideas: Transition metals – catalysts		Amount of substance – moles
• Atom economy 24/02/2025 03/03/2025 10/03/2025 17/03/2025 24/03/2025 24/03/2025 C6 'Rate & Extent of Chemical Reactions' – rate of reaction Key ideas: • Measuring rate of reaction methods • Limiting reactants • Factors affecting rates 21/04/2025 28/04/2025 05/05/2025 12/05/2025 12/05/2025 Required Practical – Disappearing Cross • Required Practical – Disappearing Cross • Required Practical – Measuring a gas volume • Graphs & tangents Collision theory & catalystsC1 'The Periodic Table' Key ideas: • Transition metals – catalysts	10/02/2025	Concentration of solutions
24/02/2025 03/03/2025 10/03/2025 17/03/2025 24/03/2025 24/03/2025 31/03/2025 31/03/2025 C6 'Rate & Extent of Chemical Reactions' – rate of reaction Key ideas: Measuring rate of reaction methods Limiting reactants Factors affecting rates 21/04/2025 28/04/2025 28/04/2025 05/05/2025 12/05/2025 12/05/2025 C6 'Rate & Extent of Chemical Reactions' – rate of reaction Key ideas: Required Practical – Disappearing Cross Required Practical – Measuring a gas volume Graphs & tangents Collision theory & catalystsC1 'The Periodic Table' Key ideas: Transition metals – catalysts		Percentage yield
03/03/2025 Cas Volumes Required Practical –'Titrations'		Atom economy
 Gas Volumes Required Practical -'Titrations' C6 'Rate & Extent of Chemical Reactions' - rate of reaction Key ideas:	24/02/2025	C3 'Quantitative Chemistry'
Required Practical - 'Titrations' Required Practical - 'Titrations' C6 'Rate & Extent of Chemical Reactions' - rate of reaction Key ideas:	03/03/2025	Key ideas:
C6 'Rate & Extent of Chemical Reactions' – rate of reaction Key ideas: Measuring rate of reaction methods Limiting reactants Factors affecting rates C6 'Rate & Extent of Chemical Reactions' – rate of reaction Factors affecting rates C6 'Rate & Extent of Chemical Reactions' – rate of reaction Key ideas: Required Practical – Disappearing Cross Required Practical – Measuring a gas volume Graphs & tangents Collision theory & catalystsC1 'The Periodic Table' Key ideas: Transition metals – catalysts	10/03/2025	Gas Volumes
Key ideas:	17/03/2025	Required Practical –'Titrations'
Measuring rate of reaction methods Limiting reactants Factors affecting rates C6 'Rate & Extent of Chemical Reactions' – rate of reaction Key ideas: Required Practical – Disappearing Cross Required Practical – Measuring a gas volume Graphs & tangents Collision theory & catalystsC1 'The Periodic Table' Key ideas: Transition metals – catalysts	24/03/2025	C6 'Rate & Extent of Chemical Reactions' - rate of reaction
• Limiting reactants • Factors affecting rates 21/04/2025 28/04/2025 05/05/2025 12/05/2025 12/05/2025 C6 'Rate & Extent of Chemical Reactions' – rate of reaction Key ideas: • Required Practical – Disappearing Cross • Required Practical – Measuring a gas volume • Graphs & tangents Collision theory & catalystsC1 'The Periodic Table' Key ideas: • Transition metals – catalysts		Key ideas:
Factors affecting rates 21/04/2025 C6 'Rate & Extent of Chemical Reactions' – rate of reaction Key ideas: Required Practical – Disappearing Cross Required Practical – Measuring a gas volume Graphs & tangents Collision theory & catalystsC1 'The Periodic Table' Key ideas: Transition metals – catalysts		
21/04/2025 28/04/2025 05/05/2025 12/05/2025 C6 'Rate & Extent of Chemical Reactions' – rate of reaction Key ideas: Required Practical – Disappearing Cross Required Practical – Measuring a gas volume Graphs & tangents Collision theory & catalystsC1 'The Periodic Table' Key ideas: Transition metals – catalysts	31/03/2025	
28/04/2025 05/05/2025 12/05/2025 Required Practical – Disappearing Cross Required Practical – Measuring a gas volume Graphs & tangents Collision theory & catalystsC1 'The Periodic Table' Key ideas: Transition metals – catalysts		Factors affecting rates
28/04/2025 05/05/2025 12/05/2025 Required Practical – Disappearing Cross Required Practical – Measuring a gas volume Graphs & tangents Collision theory & catalystsC1 'The Periodic Table' Key ideas: Transition metals – catalysts		
• Required Practical – Disappearing Cross • Required Practical – Measuring a gas volume • Graphs & tangents Collision theory & catalystsC1 'The Periodic Table' Key ideas: • Transition metals – catalysts		
• Required Practical – Measuring a gas volume • Graphs & tangents Collision theory & catalystsC1 'The Periodic Table' Key ideas: • Transition metals – catalysts	28/04/2025	
 Graphs & tangents Collision theory & catalystsC1 'The Periodic Table' Key ideas: Transition metals – catalysts 	05/05/2025	
Collision theory & catalystsC1 'The Periodic Table' Key ideas: Transition metals – catalysts	12/05/2025	
 Key ideas: Transition metals – catalysts 	//	
Transition metals – catalysts		
		Key ideas:
		Key ideas:Transition metals – catalysts
	19/05/2025	Key ideas: • Transition metals – catalysts C6 'Rate & Extent of Chemical Reactions' - equilibria
· ·		 Key ideas: Transition metals – catalysts C6 'Rate & Extent of Chemical Reactions' - equilibria Key ideas:
• Effect of changing reaction conditions eg temperature, pressure and concentration		 Key ideas: Transition metals – catalysts C6 'Rate & Extent of Chemical Reactions' - equilibria Key ideas: Reversible reactions & equilibrium
02/06/2025 End of Year Exams		 Key ideas: Transition metals – catalysts C6 'Rate & Extent of Chemical Reactions' - equilibria Key ideas:
09/06/2025	19/05/2025	 Key ideas: Transition metals – catalysts C6 'Rate & Extent of Chemical Reactions' - equilibria Key ideas: Reversible reactions & equilibrium Effect of changing reaction conditions eg temperature, pressure and concentration
16/06/2025 C7 'Organic Chemistry'	19/05/2025 02/06/2025	 Key ideas: Transition metals – catalysts C6 'Rate & Extent of Chemical Reactions' - equilibria Key ideas: Reversible reactions & equilibrium Effect of changing reaction conditions eg temperature, pressure and concentration

Year 10 Long Term Scheme of Learning 2024-25



Subject: Separate Science – Chemistry

23/06/2025	Key ideas:
30/06/2025	Fractional distillation of crude oil
07/07/2025	Alkanes and Alkenes (Cracking)
	Combustion of fuels
14/07/2025	Reactions of Alkenes