

Year 10 Long Term Scheme of Learning 2024-25

Subject: Separate Science – Chemistry

HELSEBY

High School



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Date	Unit(s)
Chemistry Separates	
02/09/2024	C2 Structure, Bonding, & the Properties of Matter
09/09/2024	Key ideas:
16/09/2024	<ul style="list-style-type: none"> • States of matter
23/09/2024	<ul style="list-style-type: none"> • Chemical bond – Ionic, covalent and metallic
30/09/2024	<ul style="list-style-type: none"> • Properties of ionic compounds
07/10/2024	<ul style="list-style-type: none"> • Properties of small molecules
14/10/2024	<ul style="list-style-type: none"> • Properties of giant covalent compounds eg diamond & graphite
21/10/2024	<ul style="list-style-type: none"> • Properties of metals and alloys • Nanoparticles – inc graphene & fullerenes
04/11/2024	C4 Chemical Reactions – reactions of acids
11/11/2024	<ul style="list-style-type: none"> • pH and neutralisation reactions.
18/11/2024	<ul style="list-style-type: none"> • Required Practical – Making Soluble Salts
25/11/2024	C4'Chemical Reactions' – electrolysis
02/12/2024	Key ideas:
09/12/2024	<ul style="list-style-type: none"> • Ionic compounds can be split into elements when molten or in solution using electricity • Aluminium extraction using electrolysis • Required Practical –'Electrolysis of aqueous solutions'
	C5 'Energy Changes'
16/12/2024	Key ideas:
	<ul style="list-style-type: none"> • Endothermic & exothermic reactions • Required Practical – 'Temperature changes' • Reaction profiles & bond energy • Batteries & fuel cells
06/01/2025	<u>Chemistry Assessment</u>
13/01/2025	
20/01/2025	C3 'Quantitative Chemistry'
27/01/2025	Key ideas:

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03/02/2025	<ul style="list-style-type: none"> Balancing equations Relative formula mass Amount of substance – moles Concentration of solutions Percentage yield Atom economy
10/02/2025	
24/02/2025	C3 'Quantitative Chemistry'
03/03/2025	Key ideas:
10/03/2025	<ul style="list-style-type: none"> Gas Volumes Required Practical – 'Titrations'
17/03/2025	C6 'Rate & Extent of Chemical Reactions' – rate of reaction
24/03/2025	
31/03/2025	Key ideas: <ul style="list-style-type: none"> Measuring rate of reaction methods Limiting reactants Factors affecting rates
21/04/2025	C6 'Rate & Extent of Chemical Reactions' – rate of reaction
28/04/2025	Key ideas:
05/05/2025	<ul style="list-style-type: none"> Required Practical – Disappearing Cross Required Practical – Measuring a gas volume Graphs & tangents
12/05/2025	Collision theory & catalysts C1 'The Periodic Table'
19/05/2025	
	Key ideas: <ul style="list-style-type: none"> Transition metals – catalysts
	C6 'Rate & Extent of Chemical Reactions' - equilibria
	Key ideas:
	<ul style="list-style-type: none"> Reversible reactions & equilibrium Effect of changing reaction conditions eg temperature, pressure and concentration
02/06/2025	End of Year Exams
09/06/2025	C7 'Organic Chemistry'
16/06/2025	

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23/06/2025	Key ideas: <ul style="list-style-type: none">• Fractional distillation of crude oil• Alkanes and Alkenes (Cracking)• Combustion of fuels• Reactions of Alkenes
30/06/2025	
07/07/2025	
14/07/2025	