

Curriculum Map

Year 12 Chemistry

Yr 12						
Date	Week	Teacher 2		Teacher 1		
		Lesson 1	Lesson 2	Lesson 1	Lesson 2	Lesson 3
01-Sep	1	<b>Chapter 2- Atoms, Ions and Compounds</b> Atoms and Isotopes	Relative Atomic Mass	no lesson	introduction and admin	<b>Chapter 3 Amount of a substance</b> Naming Compounds
08-Sep	2	Balancing equations	Ions and Ionic formulae	Empirical formula	molecular formula calculations and avagadros constant	Hydrated salt calculations
15-Sep	3	<b>Chapter 5 Electrons and Bonding - Ionic bonding</b>	properties of ionic structures	reacting mass calculations	Percentage yield	atom economy
22-Sep	4	covalent bonding	dative covalent, exceptions to octet rule	consolidation	Suitability for the course assessment	reactions involving only gases
29-Sep	5	Bonding summary	Exam practice	ideal gas equation	gas calculation consolidation	PAG 1 Mole determination (Planning)
06-Oct	6	<b>Chapter 7- Periodicity</b> The periodic table and Ionisation energy	Ionisation energy trends	PAG 1 Mole determination (practical)	amount of substance consolidation	<b>Chapter 5</b> electronic structure



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13-Oct	7	Periodic Trends in bonding and structure - Part 1	Periodic Trends in bonding and structure -Part 2	electronic structure consolidation	<b>Chapter 4-Acids and Redox-</b> Acids, Bases and Neutralisation	Titration calculations
20-Oct	8	Periodicity exam practice	Chapter 2,5 7 Test	Time to write up in PAG books	Redox	Ionic Equations and Half equations
03-Nov	9	Review Assessment	<b>Chapter 8 Reactivity Trends</b> -Group 2 chemical and physical properties	PAG 2.1- Titrations (Making a standard solution of sodium hydrogen carbonate	PAG 2- Titrations (Titration between standard solution and HCl)	<b>Chapter 6-</b> Shapes and IMF shapes of molecules and bond angles
10-Nov	10	Group 2 chemical and physical properties	Group 7 Halogens	shapes and bond angles for molecules with lone pairs	electronegativity	bond polarity
17-Nov	11	Qualitative Analysis theory	Qualitative Analysis practice and Summary of group trends	polar molecules	consolidation	IMF - permanent dipole-dipole and H bonding
24-Nov	12	PAG 4.2 Identifying Unknown Ions (planning)	PAG 4.2 Identifying Unknown Ions (practical and analysis)	IMF - induced dipole-dipole	properties of covalent molecules due to IMF	Chapter 3,4,6 Test
01-Dec	13	PAG 4.1 Identifying Unknown Ions (planning)	PAG 4.1 Identifying Unknown Ions (practical and analysis)	<b>Chapter 11 Basic Organic</b> - GCSE recap and key terms	nomenclature - Year 1 functional groups and simple molecules	nomenclature - naming branched molecules



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08-Dec	14	revision and exam practice	revision and exam practice	nomenclature consolidation	review test and make action plan for improvement	structural isomers
15-Dec	15	revision and exam practice	revision and exam practice	bond fission and rxn mechanism intro	buffer lesson	Revision for mock exams
05-Jan	16					
12-Jan	17					
19-Jan	18	<b>Chapter 9- Enthalpy</b> Review of Endothermic/exothermic reactions (energy profile)	Calculating enthalpy using bond enthalpies	<b>Chapter 12 Alkanes</b> - bonding, shape, bpt with branching, low reactivity, combustion	Alkanes - reaction with chlorine	Consolidation and extension on radical substitution mechanism
26-Jan	19	Enthalpy definitions with examples (combustion, formation, neutralisation, reaction)	$q=mc\Delta T$ (combustion)	review Jan assessment - may change depending on when results are issued	<b>Chapter 13 Alkenes</b> - bonding, shape, reactivity	stereoisomers (E/Z)
02-Feb	20	PAG 3 Enthalpy changes (combustion) (Planning)	PAG 3 Enthalpy changes (combustion) (Practical)	CIP priority rules for naming E/Z isomers	Reactions of alkenes	Alkenes - electrophilic addition mechanism, Markownikoff's rule
09-Feb	21	$q=mc\Delta T$ (neutralisation)	Review Jan mock	<b>Alkenes</b> - addition polymerisation	consolidation and exam Q practice	Chapter 11-13 Test
23-Feb		PAG 3 Enthalpy changes (neutralisation) (Planning)	PAG 3 Enthalpy changes	<b>Chapter 14 Alcohols</b> - properties,	<b>Alcohols</b> - oxidation	<b>Alcohols</b> - elimination



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			(neutralisation) (Practical)	classification, combustion		
02-Mar		Hess' Law (using enthalpy of formation data)	Hess' Law (using enthalpy of combustion data)	<b>Alcohols</b> - substitution	<b>Chapter 15 Haloalkanes</b> - intro and hydrolysis	<b>Haloalkanes</b> - nucleophilic substitution mechanism
09-Mar		Application of Hess' Law	Application of Hess' Law (Extend and Challenge)	<b>Haloalkanes</b> - nucleophilic substitution mechanism consolidation	<b>Haloalkanes</b> - CFCs	<b>Haloalkanes</b> - summary and exam Qs
16-Mar		<b>Chapter 10 Rates and Eqm</b> - Factors that affect rate	Calculating rate using tangents	<b>Chapter 17 Analytical Techniques</b> - mass spectroscopy	<b>Analytical Techniques</b> - IR spectroscopy	<b>Analytical Techniques</b> - interpreting and predicting IR spectra
23-Mar		Catalysts and Practical methods	Maxwell-Boltzmann distribution curves	<b>Analytical Techniques</b> - deducing organic structures from analytical data	<b>Analytical Techniques</b> - consolidation and exam Q practice	Chapter 14,15-17 Test
13-Apr	27	Factors that effect equilibrium position	Kc calculations and units	<b>Chapter 16 Organic Synthesis</b> - identifying functional groups in molecules with multiple groups, summarising Year 1 organic reactions	<b>Organic Synthesis</b> - devising 2-stage synthetic routes.	<b>Organic Synthesis</b> - devising 2-stage synthetic routes.
20-Apr	28	Kc I.C.E Tables	Kc I.C.E Tables	<b>Organic Synthesis</b> -	<b>Organic Synthesis</b> -	<b>Organic Synthesis</b> -



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				devising 2-stage synthetic routes.	preparing an organic liquid	preparing an organic liquid
27-Apr	29	Chapter 9-10 Test	Review Assessment	<b>Organic Synthesis</b> - preparing a pure, dry organic liquid (Planning)	<b>Organic Synthesis</b> - preparing a pure, dry organic liquid (practical)	<b>Organic Synthesis</b> - preparing a pure, dry organic liquid (practical)
04-May	30	revision and exam practice	revision and exam practice	<b>Organic Synthesis</b> - preparing an organic solid	<b>Organic Synthesis</b> - preparing a pure, dry organic solid (practical)	<b>Organic Synthesis</b> - preparing a pure, dry organic solid (practical)
11-May	31	revision and exam practice	revision and exam practice	revision and exam practice	revision and exam practice	revision and exam practice
18-May	32	revision and exam practice	revision and exam practice	revision and exam practice	revision and exam practice	revision and exam practice
01-Jun	33	revision and exam practice	revision and exam practice	revision and exam practice	revision and exam practice	revision and exam practice
08-Jun	34	revision and exam practice	revision and exam practice	revision and exam practice	revision and exam practice	revision and exam practice
15-Jun	35					
22-Jun	36			<b>Stereoisomerism</b> - optical isomers	<b>Stereoisomerism</b> - identifying chiral carbons (card activity)	Review UCAS exam
29-Jun	37					
06-Jul	38					
13-Jul	39					



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