

	Half term 1	Half term 2	Half term 3	Half term 4	Half term 5	Half term 6	
<p style="text-align: center;">Year 11 Chemistry & Combined Science Chemistry</p>	Content delivered: Unit 7: Crude oil Hydrocarbons Alkanes Fractional distillation Alkenes Cracking Reactions of alkenes Alcohols (Chemistry only) Carboxylic acids (Chemistry only) Esterification (Chemistry only) Addition polymerisation (Chemistry only) Condensation polymerisation (Chemistry only)	Content delivered: Unit 8: Pure substances Formulations Chromatography Identification of common gasses Identifying anions and cations	Content delivered: Unit 9: Gases in the atmosphere Earths early atmosphere How atmospheric gasses changed Greenhouse gasses Global climate change Reducing carbon footprint Atmospheric pollutants Unit 10: Using Earths resources and sustainable development Potable water Waste water treatments Alternative metal extraction methods	Content delivered: Unit 10: Life cycle assessment Reducing the use of limited resources Corrosion (Chemistry only) Alloys (Chemistry only) Ceramics (Chemistry only) Haber process (Chemistry only)	Content delivered: Unit 1 content review and exam prep Unit 2 content review and exam prep Unit 3 content review and exam prep Unit 4 content review and exam prep Unit 5 content review and exam prep Unit 6 content review and exam prep Unit 7 content review and exam prep Unit 8 content review and exam prep Unit 9 content review and exam prep Unit 10 content review and exam prep	<h1>Summer exams</h1>	
	Key Words Level 2 Level 3	Alkane, alkene, fractional distillation, cracking, Bromine water, viscosity, volatility, alcohol, carboxylic acid, ester/esterification	Litmus paper, bleach, electrolysis, anion, cation, anode, cathode, solvent	Pollution/pollutants, climate change, carbon footprint, evolution, particulate, global dimming, photosynthesis, greenhouse gas, life-cycle assessment, potable, pure, impure desalination, osmosis, sedimentation, sterilisation, phytomining, bioleaching	Life-cycle assessment, potable, pure, impure desalination, osmosis, sedimentation, sterilisation, phytomining, bioleaching		Taken from all units
	Where previous knowledge has occurred and future development KS2 → KS3 → KS4 → KS5	KS2: Properties of materials KS3: Composites, Polymers and Ceramics KS4: Polymers KS5: Alkanes, alkenes, alcohols, aldehydes, ketones, carboxylic acids etc	KS2: Properties of solids, liquids and gases KS3: Separations KS4: State of matter and phase changes KS5: TLC and GC, Transition metal reactions	KS2: Ecology, earth and space KS3: The earth's atmosphere and greenhouse effect KS4: KS5: Reactions of transition metals	KS2: Rocks KS3: Composites, Polymers and Ceramics KS4: Bonding of metals and non-metals, rates KS5: Rates, Le Chatelier's principle		KS2: All relevant content KS3: All relevant content KS4: All taught units from Y10 & Y11 KS5: Used in all units
	Common Misconceptions	Differences between intra-molecular and inter-molecular bonds	Naming of anions, cations, anodes and cathodes	Confusing climate change and global warming	Differences between corrosion and erosion		Identified and addressed from mock exams
	Literacy	Writing to describe: process of fractional distillation NHTW reviews as starter activities	Scientific writing (HSW): Chromatography Scientific writing (HSW): Anion and cation tests NHTW reviews as starter activities	Writing to describe: evolution of atmosphere Writing to argue: Alternative extraction methods Scientific writing (HSW): Water testing NHTW reviews as starter activities	Writing to argue: Life cycle assessment Writing to describe: Haber process NHTW reviews as starter activities		NHTW reviews as starter activities
	Numeracy	Negative numbers Calculating means Choosing appropriate graphs	Calculating Rf values	Working with percentages Calculating means	Interpreting graphs Calculating means Ratios		Graph skills Rearranging formulae Ratios
	Homework	Completion of kerboodle/everlearner section quizzes	Completion of kerboodle/everlearner section quizzes	Completion of kerboodle/everlearner section quizzes	Completion of kerboodle/everlearner section quizzes		Completion of kerboodle/everlearner section quizzes
	Assessment this half-term		Mock exams – paper 1 & 2	Mock exam – paper 2			
	Career opportunities Employment Links	LIFE SKILLS: Understanding where oil and its products come from EMPLOYMENT: Oil rig worker	LIFE SKILLS: Understanding how gasses can be identified EMPLOYMENT: Forensic scientist	LIFE SKILLS: Understanding the causes of climate change EMPLOYMENT: Climatologist	LIFE SKILLS: Understanding the 'life cycle' of different products EMPLOYMENT: Mechanic		LIFE SKILLS: Resilience and organisation EMPLOYMENT:
	Enrichment						
Practical activities/HSW	Testing for alkenes Making polymers	Paper chromatography Gas tests Testing for anions and cations	Testing water samples		RP reviews		
Employability Skills	Aiming high Creativity Leadership Listening Presenting Problem solving Literacy Numeracy Independence Communication Teamwork Staying positive	Aiming high Creativity Leadership Listening Presenting Problem solving Literacy Numeracy Independence Communication Teamwork Staying positive	Aiming high Creativity Leadership Listening Presenting Problem solving Literacy Numeracy Independence Communication Teamwork Staying positive	Aiming high Creativity Leadership Listening Presenting Problem solving Literacy Numeracy Independence Communication Teamwork Staying positive	Aiming high Creativity Leadership Listening Presenting Problem solving Literacy Numeracy Independence Communication Teamwork Staying positive		
IT Skills	IT1 & IT2: Appropriate websites and research for homework as well as recall quizzes	IT1 & IT2: Appropriate websites and research for homework as well as recall quizzes	IT1 & IT2: Appropriate websites and research for homework as well as recall quizzes	IT1 & IT2: Appropriate websites and research for homework as well as recall quizzes	IT1 & IT2: Appropriate websites and research for homework as well as recall quizzes		
Notes/developments /standardisation comments							