

	Autumn	Spring	Summer
Knowledge & Skills	<p>Energy Changes</p> <ul style="list-style-type: none">Endothermic & exothermic reactionsTemperature changes required practicalReal life applications of endo & exothermic reactionsReaction profile graphsBond energy calculationsChemical cells & batteries (SS)Fuel cells (SS) <p>Rate and Extent of Chemical Change</p> <ul style="list-style-type: none">Collision theoryFactors affecting rate of reactionCalculating rate of reactionEffect of concentration required practicalReversible reactions and equilibriumLe Chateliers principle	<p>Organic Chemistry</p> <ul style="list-style-type: none">Hydrocarbons & alkanesProperties of hydrocarbonsCrude oil & fractional distillationCombustionAlkenes & crackingStructure & reactions of alkenes (SS)Addition polymers (SS)Structure & reactions of alcohols (SS)Carboxylic acids & esters (SS)Condensation polymers (SS)Natural polymers (SS) <p>Chemical Analysis</p> <ul style="list-style-type: none">Pure substances, mixtures & formulationsChromatography required practicalGas testsTests for positive and negative ions required practical (SS)Instrumental analysis (SS) <p>Chemistry of the Atmosphere</p> <ul style="list-style-type: none">History & evolution of the atmosphereGreenhouse gasesClimate changeAtmospheric pollutantsAcid rain	<p>Earth's Resources</p> <ul style="list-style-type: none">Finite and renewable resourcesPotable water from groundwaterPotable water required practicalTreating sewagePhytomining & bioleachingLifecycle assessmentsReduce, reuse and recycleCorrosion & alloys (SS)Ceramics, polymers & composites (SS)Haber process (SS)NPK fertilisers (SS)
Links to prior learning	<ul style="list-style-type: none">Year 8 Chemical ReactionsYear 9 Chemical Reactions	<ul style="list-style-type: none">Year 7 Separation TechniquesYear 9 Earth & Atmosphere	<ul style="list-style-type: none">Year 9 Earth & Atmosphere
Assessment	<ul style="list-style-type: none">Energy changes assessmentTemperature changes formative assessmentRate of reaction formative assessmentRate and extent of chemical change assessmentYear 11 mock exam	<ul style="list-style-type: none">Chromatography formative assessmentChemical analysis assessment	<ul style="list-style-type: none">Potable water formative assessment
Home learning	<ul style="list-style-type: none">EducakeGCSEpodPast paper exam questionsReading comprehensions	<ul style="list-style-type: none">EducakeGCSEpodPast paper exam questionsReading comprehensions	<ul style="list-style-type: none">EducakeGCSEpodPast paper exam questionsReading comprehensions
Cultural Capital and extra-curricular opportunities	<ul style="list-style-type: none">Targeted Intervention	<ul style="list-style-type: none">Targeted Intervention	<ul style="list-style-type: none">Targeted Intervention
Literacy	<ul style="list-style-type: none">Key words & definitionsEtymology of keywords	<ul style="list-style-type: none">Key words & definitionsEtymology of keywords	<ul style="list-style-type: none">Key words & definitionsEtymology of keywords
Numeracy	<ul style="list-style-type: none">Calculating bond energyDrawing reaction profilesInvestigating temperature changes<ul style="list-style-type: none">	<ul style="list-style-type: none">Calculating % by massBalancing equationsCalculating Rf valuesInterpreting graphs	<ul style="list-style-type: none">Analysing concentration in water samplesExplaining graphs related to Haber process
Careers Information, Education, Advice and Guidance (CEIAG)	<ul style="list-style-type: none">PharmacistChemical Engineer	<ul style="list-style-type: none">Oil & Petrochemical industryChemical analyst	<ul style="list-style-type: none">Environmental OfficerUnited Utilities
Spirituality	<ul style="list-style-type: none">Respect for lap partners when working together	<ul style="list-style-type: none">Playing our part as global citizens in recognising the impact of our actions and how our need for 'stuff' will affect future generations	<ul style="list-style-type: none">Playing our part as global citizens in recognising the impact of our actions and how our need for 'stuff' will affect future generationsRespect and acknowledgement for the work and contribution of Scientists such as Haber
How can parents support the curriculum?	<ul style="list-style-type: none">Encourage students to frequently revisit topics covered last year and those covered earlier this termHelp students establish a revision routine/timetable on the months before mock exams	<ul style="list-style-type: none">Encourage students to frequently revisit topics covered last year and those covered earlier this termHelp students establish a revision routine/timetable on the months before the GCSEs commence	<ul style="list-style-type: none">Encourage students into a healthy work/sleep routine in preparation for GCSEs

