



Chemistry

Triple

Year 9



KS3

Curriculum Details

Modules	Content	Homework	Parent / Carer Support
C1 Atomic Structure	Structure of the atom History of the atom Chemical equations Separation techniques Isotopes and ions	The students are given a homework book, either higher tier or foundation tier based on their Kimberley School Target.	Help them revise using revision cards.
C2 The Periodic Table	Development of the Periodic Table Reactions and trends in group 1 & group 7 elements Electronic structure of atoms and ions	The students will be allocated pages to complete in this book for homework, which correspond to the lessons taught in class. In addition, questions may be set covering the following areas: <ul style="list-style-type: none"> · Long answer questions. · Practical write-ups. · Revision & flashcards. · Key words. 	Help them revise from the classwork books. Ensure they complete homework on time. Encourage them to ask their teachers for help if they are stuck.
C13 Our Atmosphere	History and composition of the atmosphere Development of the atmosphere Greenhouse effect Global warming Global climate change and greenhouse gases Atmospheric pollution		
C14 The Earth's Resources	Finite & renewable resources How chemistry improves agriculture and industry Interpreting data Potable water Water treatment Extracting metals from ores Life cycle assessments Issues affecting recycling, reducing and reusing products		



Exam Board: AQA



Chemistry

Triple

KS4

Curriculum Details

Year 10

Modules	Content	Homework	Parent / Carer Support
C3 Structure and Bonding	States of matter Ionic, covalent & metallic bonding Giant and simple structures Fullerenes and graphene Properties of giant and simple structures Nanoparticles	The students are given a homework book, either higher tier or foundation tier based on their Kimberley School Target. The students will be allocated pages to complete in this book for homework, which correspond to the lessons taught in class. In addition, questions may be set covering the following areas: <ul style="list-style-type: none">· Long answer questions.· Practical write-ups.· Revision & flashcards.· Key words.	Help them revise using revision cards. Help them revise from the classwork books.
C4 Chemical Calculations	Mole calculations using relative formula mass Isotopes Convert between moles, mass and formula mass Balancing equations Calculating concentrations of solutions Titrations		Ensure they complete homework on time. Encourage them to ask their teachers for help if they are stuck
C5 Chemical Changes	Reactivity series of metals Reduction and oxidation Displacement reactions Extracting metals Acids reactions – making salts Strong and weak acids pH curves		
C6 Electrolysis	Electrolysis uses Half equations Electrolysis of molten ionic compounds and aqueous solutions Extraction of aluminium Oxidation and reduction		
C7 Energy changes	Exothermic and endothermic Calorimetry Activation energy, bond breaking and bond breaking Chemical cells and batteries Half equations Non-rechargeable batteries Hydrogen fuel cells		
C8 Rates and equilibrium	Calculating the rate of reaction Collision theory Temperature, surface area, concentration, catalysts Reversible reactions and equilibria Dynamic equilibria and Le Chatelier's Principle		
C9 Crude oil and fuels	Fractional distillation of crude oil Hydrocarbons and alkanes and their properties Complete and incomplete combustion Cracking and alkenes		



Chemistry

Triple

Year 11

KS4
Curriculum Details

Modules	Content	Homework	Parent / Carer Support
C10 Organic reactions	Reactions of alkenes Comparing alkanes and alkenes Structures and reactions of alcohols, esters and carboxylic acids	The students are given a homework book, either higher tier or foundation tier based on their Kimberley School Target. The students will be allocated pages to complete in this book for homework, which correspond to the lessons taught in class. In addition, questions may be set covering the following areas:	Help them revise using revision cards. Help them revise from the classwork books.
C11 Hormonal Coordination	Hormonal Control Blood Glucose Diabetes Negative Feedback Human Reproduction Menstrual Cycle Contraception Infertility	· Long answer questions · Practical write-ups. · Revision & flashcards. · Key words.	Ensure they complete homework on time. Encourage them to ask their teachers for help if they are stuck
C12 Chemical Analysis	Formulations, mixtures, percentage compositions of components Chromatography and Rf values Testing for gases		
C15 Using our resources	Rusting Alloys Polymer properties Glass, ceramics and composites Making ammonia – the Haber process		

Study Guides Available:

CGP Study and Question books (will last until the end of Y9) - Purchase via sQuid and collect from the science department.

Revision Cards - Purchase online through sQuid, and can be collected from Mr Murray in S9. 3 x £3 for combined science.

CGP workbook, exam practice question and answers books. These books cover the whole course (Y10 and Y11) - Purchase online (£14) through sQuid, and can be collected from Mr Murray in S9.

AQA Chemistry for GCSE Combined Science: Trilogy. Higher/Foundation Workbook provided by free the Science Department for use in class or at home.

BBC Bitesize Key Stage 3 - www.bbc.co.uk/bitesize

<http://www.expertguidance.co.uk>

Extra parental support

- Ensuring students complete homework on time.
- Encouraging them to seek help if they are struggling.
- Supporting students to revise for end of chapter tests.
- Helping students to review tests to see where to improve and set targets to ensure progress.