Clarendon
Sixth Form College

Chemistry – Quantitative Chemistry

Applicant Study Pack

Description of course	**A Level Chemistry** In Chemistry you will learn about different substances, their properties, and how and why they react. Studying A Level Chemistry is essential for certain careers such as Medicine, Dentistry and Veterinary Sciences, and can lead you to many different careers in sectors such as energy, scientific research, cosmetics, engineering, environment, forensics, education and many more. At Clarendon we follow the OCR A specification for Chemistry. In this specification you study 6 modules that cover the breadth of the subject and will prepare you for further studies. These modules are: **Module 1 – Development of practical skills in chemistry** **Module 2 – Foundations in chemistry** (amount of substance, structure and bonding, redox, acids and bases) **Module 3 – Periodic table and energy** (groups of the periodic table, trends across a period, qualitative chemistry, enthalpies, rates and equilibria) **Module 4 – Core organic chemistry** (alkanes, alkenes, alcohols, haloalkanes, synthesis, analysis) **Module 5 – Physical chemistry and transition elements** (rates, equilibria, pH and buffers, enthalpy, entropy and free energy, electrochemistry, transition metals) **Module 6 – Organic chemistry and analysis** (aromatic compounds, carbonyls, carboxylic acids and esters, nitrogen compounds, polymers, synthesis, spectroscopy)
Task 1	It is vitally important that you have a good grasp of the fundamental equations used to determine amount of substance in Chemistry. Being able to calculate number of moles, concentrations, volumes and other quantities underpins almost every aspect of the subject. Watch the video courses below and create a set of flashcards that you can use to test yourself on all of the important equations and methods: **Gas volumes**: https://tinyurl.com/sawnkzd3 **Moles, concentrations and volumes**: https://tinyurl.com/54ynyj5d **Atom economy**: https://tinyurl.com/rsr3r7nb **Percentage yield**: https://tinyurl.com/2u8d43zs Here are some links you can also use: https://www.bbc.co.uk/bitesize/topics/zsnyy4j

	https://www.physicsandmathstutor.com/chemistry-revision/gcse-aqa/quantitative-chemistry/
Task 2	Test yourself by completing some of the example questions found here: https://www.bbc.co.uk/bitesize/guides/zwwyh39/revision/1 Further challenge yourself by trying some past paper questions and marking your answers. Find these questions here: https://www.physicsandmathstutor.com/chemistry-revision/gcse-aqa/quantitative-chemistry/
Further reading / links	https://www.a-levelchemistry.co.uk/topic-2---amount-of-substance.html http://www.a-levelnotes.co.uk/chemistry-aqa-alevel-notes-amount-of-substance.html
Call to action	Visit our website – www.clarendon.ac.uk for more information. Join us for enrolment in August 2021. Letters will be sent to all applicants at the end of July with more details.