

CHEMISTRY A LEVEL

The Year 12 topics extend and develop some of the ideas you have learnt at GCSE. Throughout both courses the effect of electron arrangement, energies and structure on chemical behaviour is stressed. You need to be able to learn the fundamental laws and principles of Chemistry and then apply them to unfamiliar situations.

The coursework element assesses your practical skills so you need to be good at carrying out experiments, as well as analysing data produced and evaluating the experiment.

AS Advanced Subsidiary in Chemistry

Unit	Content	Assessment	Weighting (% of final AS mark)
Atoms, bonds and groups F321	This unit builds on key concepts studied at GCSE including atomic structure, chemical reactions and chemical calculations. Improved models are used to develop understanding and the work in this unit underpins much of the further work at both AS and A2	1 hour written paper	30%
Chains, energy and resources F322	This unit builds on the study of carbon chemistry introduced at GCSE. As well as developing work on functional groups such as alkanes and alkenes, it introduces new functional groups and the concept of reaction mechanisms. Energy changes in reactions are also studied at a quantitative level. This is linked to the use of hydrocarbons as fuels and the role chemists have in ensuring such materials are used effectively.	1 hour 45 min written paper	50%
Practical Skills F323	A series of practical tasks that test the ability of the candidate to observe, measure, process data and evaluate data in the context of the ideas studied in Units 1 and 2	Internally assessed	20%

The Year 13 topics extend and develop some of the ideas you have learnt during Year 12. Throughout both courses the effect of electron arrangement, energies and structure on chemical behaviour is stressed as key synoptic concepts. You need to be able to learn the fundamental laws and principles of Chemistry and then apply them to unfamiliar situations.

The coursework element assesses your practical skills so you need to be good at carrying out experiments, as well as analysing data produced and evaluating the experiment.

A2 - Advanced GCE in Chemistry

Unit	Content	Assessment	Weighting (% of final AS mark)
Rings, polymers and analysis F324	This unit provides candidates with a deeper knowledge and understanding of how organic chemistry shapes the natural world and how organic chemicals provide many important materials. It also builds knowledge and understanding of how amino acids are the building blocks of polypeptides and proteins, the preparation of synthetic condensation polymers and the importance of synthetic organic chemistry, including analysis of products.	1 hour 15 mins hour written paper	30%
Equilibria, Energetics and Elements F325	This unit provides students with a quantitative study of physical chemistry. For example, the qualitative treatment of reaction rates and equilibria encountered at AS is developed within a quantitative and graphical context. It also builds on the study of Energetics at AS considering ways in which scientists are working to provide cleaner and more efficient energy. Many of these concepts are then applied synoptically to the Transition Metals.	2 hours written paper	50%
Practical Skills F326	A series of practical tasks that test the ability of the candidate to observe, measure, process data and evaluate data in the context of the ideas studied in Units 4 and 5	Internally assessed	20%

For more information about this subject, please contact
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