Science - Chemistry

Year 11

What are the aims and intentions of this curriculum?

Continuation of the GCSE AQA Chemistry course. Developing students understanding of key scientific ideas and their ability to investigate scientifically and have an in depth understanding of their findings.

Term	Topics	Knowledge covered	Skills developed	Assessment
Autumn 1	Quantitative	Amount, Mols, Volume, Concentration and Gas Calculations Stoichiometric Ratios and Titration Calculations	Titration Practical Task Understanding accuracy and reliability. Collecting valid results. Plotting and analysing graphs.	Mock exams - Biology paper 1 - Chemistry paper 1 - Physics paper 2
Autumn 2	Chemical Changes in Electrolysis	The chemical reactions that occur during molten and aqueous electrolysis. Oxidation and Reduction in terms of electron transfer. Cell Half Equations	Electrolysis Practical Task Understanding accuracy and reliability. Collecting valid results. Plotting and analysing graphs.	
Spring 1	Using Resources	Reduce, Reuse, Recycle to sustain resources. Treatment of potable water Sewage treatment Specific uses and properties of alloys and ceramics	Understanding accuracy and reliability. Plotting and analysing graphs. Water Analysis Practical Task	Mock exams - Biology paper 2 - Chemistry paper 2 - Physics paper 1
Spring 2	Atmosphere	Changes to the atmosphere over geological and human time scales. Pollution production, effects and mitigation Product Lifecycle Assessments	Understanding accuracy and reliability. Plotting and analysing graphs.	
Summer 1	Revision of year 9 and 10 topics Revision (specific to student needs)	Reaction Rates, Bonding, Organic Chemistry, Periodic Table structure and Development	Required practical tasks for year 9 and 10 topics will be covered and the relevant skills in data collection, analysis, evaluation will be further developed.	