Science - Combined science

Year 11

What are the aims and intentions of this curriculum?

Completion of the GCSE AQA Science 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	Inheritance Using Resources Atoms and radioactivity Practical skills	Reproduction, meiosis, DNA, genetic inheritance, genetic diseases, genetic engineering, evolution Finite and renewable resources, water treatment, sewage, extracting metals from ores, electrolysis, life cycle assessments Models of the atom, radioactive decay, types of radioactivity, decay equations, half-life, radioactive safety, radioactive uses	Practical skills - planning investigations using correct terminology for variables. Understanding accuracy and reliability. Collecting valid results. Plotting and analysing graphs.	Mock exams - Biology paper 1 - Chemistry paper 1 - Physics paper 2
Autumn 2				
Spring 1	Revision of year 9 topics	Cells and microscopes, health and disease, organisation of the human body, plant organisation Atoms and the Periodic table, rates of reaction, chemical changes Forces, waves, particle model of matter	Required practical tasks for year 9 topics will be covered and the relevant skills in data collection, analysis, evaluation will be further developed.	Mock exams - Biology paper 2 - Chemistry paper 2 - Physics paper 1
Spring 2	Revision of year 10 topics	Homeostasis, Respiration, Photosynthesis, Ecology Chemical bonding and structures, Organic chemistry, energy changes in chemistry, Quantitative chemistry Energy, Electricity, Magnets and electromagnets, motion	Required practical tasks for year 10 topics will be covered and the relevant skills in data collection, analysis, evaluation will be further developed.	
Summer 1	Revision (specific to student needs)			