

What are the aims and intentions of this curriculum?

Beginning the GCSE Science course (AQA) with links to topics covered in years 7 and 8, building on knowledge and understanding of key ideas. A big focus on mathematical and practical skills that students will use throughout their GCSE course.

Term	Topics	Knowledge covered	Skills developed	Assessment
Autumn 1	Maths for Science Cells Atoms Forces	Maths - size and scale, rounding, averages, algebra, graphs Cells - types of cell, cell structures, microscopy, transport in cells Atoms - models of atoms, structures, electrons, reactions Forces - Vectors, resultant forces, weight, elastic behaviour	Use of standard form and significant figures. Graph plotting and analysis. Using and rearranging equations Drawing and annotating scientific diagrams	Individual end of topic tests using past exam questions
Autumn 2	Practical skills Cells Atoms Forces			
Spring 1	Practical skills Health and disease Rates of reaction Waves	Disease - types of disease, spread, human defence, vaccinations, drug development Rates - Measuring rate, Effects of concentration, temperature, surface area, catalysts, collision theory, industrial importance Waves - properties, EM spectrum, refraction, wave experiments, wave equations	Practical skills - planning investigations using correct terminology for variables. Understanding accuracy and reliability. Collecting valid results. Plotting and analysing graphs.	Individual end of topic tests using past exam questions. Extended writing practical skills assessment.
Spring 2	Practical skills Health and disease Rates of reaction Waves			
Summer 1	Practical skills Ecology Periodic table Energy resources	Ecology - classification, communities, biodiversity, adaptations, cycling of materials, human impacts Periodic table - development, organisation, groups and periods, reactivity Energy resources - renewable and non-renewable sources, how they produce electricity, advantages and disadvantages	Practical skills - planning investigations using correct terminology for variables. Understanding accuracy and reliability. Collecting valid results. Plotting and analysing graphs. Ecology - sampling techniques and statistics	Periodic table project and energy resources project assessment
Summer 2	Ecology Periodic table Energy resources Personalised EBI work		EBI work - developing skills and knowledge covered over the year so far that are shown to be areas of weakness, based on QLA from assessment	Summer assessment covering all topics taught in year 9.