

Science - Key Stage 3 Topics

	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
Year 7	Extreme Chemistry	Global supermarket	Well fit!	What is life like on other planets?	The most dangerous place on Earth	Life always finds a way
Year 8	How things work	Our planet	Muggle magic	Oceans	Sports Science	Tomorrows World
Year 9	You and your genes; Air quality; Earth in the Universe	You and your genes; Air quality; Earth in the Universe	You and your genes; Air quality; Earth in the Universe	Keeping healthy; Material choices; Radiation and life	Keeping healthy; Material choices; Radiation and life	Keeping healthy; Material choices; Radiation and life

Biology - Key Stage 4 Topics

	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
Year 10	Life on Earth	Life on Earth	Homeostasis	Homeostasis	Growth and development	Growth and development
Year 11	Coursework	Brain and mind	Brain and mind	Biology across the ecosystem	Biology across the ecosystem	Revision

Chemistry - Key Stage 4 Topics

	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
Year 10	Food matters	Food matters	Chemical patterns	Chemical patterns	Chemicals of the natural environment	Chemicals of the natural environment
Year 11	Coursework	Chemical synthesis	Chemical synthesis	Chemistry for a sustainable world	Chemistry for a sustainable world	

Physics - Key Stage 4 Topics

	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
Year 10	Radioactive materials	Radioactive materials	Explaining motion	Explaining motion	Electric circuits	Electric circuits
Year 11	Coursework	The wave model of radiation	The wave model of radiation	Observing the Universe	Observing the Universe	

Science level 2 BTEC - Key Stage 4 Topics

	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
Year 10	<p>The diversity of living organisms and how they are classified</p> <p>Atomic structure and isotopes</p> <p>Energy transfers</p>	<p>How living things interact with each other and their environments</p> <p>Identification of structure and bonding in different substances</p> <p>Ionising radiation</p>	<p>How living things interact and how they are classified</p> <p>Exothermic and endothermic reactions</p> <p>Waves</p>	<p>Variation, chromosomes, DNA and genes</p> <p>Factors affecting reaction rates</p> <p>Generating electricity</p>	<p>Understand that genes are responsible for inheritance and variations within species, leading to evolutionary change</p> <p>Organic compounds and society</p> <p>Universe</p>	<p>The factors that may affect human health and the ways human health is controlled</p> <p>Earth and environment</p>
Year 11	<p>You and your genes;</p> <p>Air quality;</p> <p>Earth in the Universe</p>	<p>You and your genes;</p> <p>Air quality;</p> <p>Earth in the Universe</p>	<p>You and your genes;</p> <p>Air quality;</p> <p>Earth in the Universe</p>	<p>Keeping healthy;</p> <p>Material choices;</p> <p>Radiation and life</p>	<p>Keeping healthy;</p> <p>Material choices;</p> <p>Radiation and life</p>	<p>Keeping healthy;</p> <p>Material choices;</p> <p>Radiation and life</p>

Biology - Key Stage 5 Topics

	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
Year 12	Transport (animals) Cells	Transport (plants) Cells	Enzymes & Nucleic acids Biological molecules	Biodiversity Food and health	Classification & Evolution Health and disease	Environment
Year 13	Communication & homeostasis Photosynthesis	Excretion Respiration	Meiosis & variation Cell control	Responding to the environment Biotechnology	Revision	

Chemistry - Key Stage 5 Topics

	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
Year 12	Unit 1 Module 1 Atoms and Reactions. Unit 1 Module 3 Periodic Table	Unit 1 Module 2 Electrons bonding and Structure. Unit 2 Module 1 Basic Concepts and Hydrocarbons	Unit 2 Module 2 Alcohols, Halogenoalkanes and analysis. Unit 2 Module 3 Energy	Unit 2 Module 4 Resources. Practical Skills	Practical Skills. Exam. preparation	Start A2 work after exams.
Year 13	Unit 1 Module 1 Rings, acids and amines. Unit 1 Module 3 Analysis	Unit 1 Module 2 Polymers and synthesis. Unit 2 Module 2 Energy	Unit 2 Module 1 Rates, Equilibrium and pH. Practical Skills	Unit 2 Module 3 Transition Elements. Practical Skills	Practical Skills. Exam preparation.	

Physics - Key Stage 5 Topics

	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
Year 12	Kinematics – describing motion Accelerated motion Dynamics – explaining motion	Working with vectors Forces, moments and pressure Forces, vehicles and safety Work, energy and power	Deforming solids Electric current Resistance and resistivity Voltage, energy and power	DC circuits Practical circuits Kirchoff’s laws	Waves Electromagnetic waves Superposition of waves	Stationary waves Quantum physics Spectra
Year 13	Momentum Momentum and Newton’s laws Circular motion Gravitational fields	Oscillations Thermal physics Ideal gases	Electric fields Magnetic fields Electromagnetic induction Capacitors	Atomic structure Nuclear physics Radioactivity X-rays	Diagnostic methods in medicine Using ultrasound in medicine The nature of the universe The evolution of the universe	Revision

Forensic Science - Key Stage 5 Topics

	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
Year 12	Understand the quantities involved in chemical reactions	Understand structures in biological systems	Understand types of energy and their interconversions	Know the basic principles of electricity and electromagnetic radiation	Be able to use appropriate methods to produce two chemical substances	Be able to use sampling techniques
Year 12	Understand competing criminological explanations of crime and how they are applied to the study of crime	Know about the contested nature of crime and be able to explain how the two main statistical measures can provide very different crime figures	Understand the arguments about crime control policies	Understand why the aims of state punishment may change over time	Be able to gather 'forensic' evidence from a simulated crime scene using appropriate methods and present the results	Understand the chemical techniques used in the analysis of evidence from a crime scene
Year 12	Be able to select and use appropriate equipment and conditions to make a photographic portfolio for forensic purposes	Know the theoretical principles behind the selection and use of conditions to make a photographic portfolio for forensic purposes	Understand the use of photography in the CJS	Be able to produce a photographic portfolio for forensic purposes	Understand how psychological perspectives have been used to explain criminal behaviour	Be able to use research methods to undertake a psychological study into a crime issue
Year 13	Be able to use analytical methods	Be able to select and use appropriate instruments for scientific investigations	Improving units	Improving units	Improving units	Improving units
Year 13	Understand the physical techniques used in the analysis of evidence from a crime scene	Understand the biological techniques used in the analysis of evidence from a crime scene	Improving units	Improving units	Improving units	Improving units
Year 13	Understand how psychology theories have been applied to different issues within the CJS	Understand the influence psychological research has had on aspects of the CJS	Improving units	Improving units	Improving units	Improving units