Year 7

Half term 1 September-October	Half term 2 October-December	Half term 3 January-February	Half term 4 February-April	Half term 5 April-May	Half term 6 June-July
• Particle model • Pure and impure substances • Separating mixtures • Forces • Energy transfers and efficiency	• Life processes • Cells • Microscopy • Organisation • Elements, compounds and mixtures • Chemical reactions	• Energetics • **Mid-year assessments** • Organ systems • Sound waves	• Light and transmission of light • The eye • Materials • DNA	• Genetic variation • Reproductive system • Menstrual cycle • Plant reproduction	• **End of year assessments** • Thermal energy transfers • Thermal conductivity • Internal energy • Specific heat capacity • Gas pressure

Year 8

Half term 1 September-October	Half term 2 October-December	Half term 3 January-February	Half term 4 February-April	Half term 5 April-May	Half term 6 June-July
• Composition of the Earth • Formation of rocks • Fossils and fossil fuels • Greenhouse effect and pollution • Distance-time graphs • Acceleration • Weight	• Plant tissues and leaf adaptions • Photosynthesis • Plants and the atmosphere • Transport in plants • Transport in plants • Transpiration • Charge and static electricity • Circuits	• Interdependence and food webs • **Mid-year assessments** • Decay • The Carbon cycle • Classification • Evolution • DNA	• Deformation • Pressure • Moments • Acids and alkalis • Neutralisation reactions • Diet	• Digestion of food • Enzymes • Solar system • Deasons	• **End of year assessment** • Ecosystems • Biotic and Abiotic factors

Year 9

Half term 1 September-October	Half term 2 October-December	Half term 3 January-February	Half term 4 February-April	Half term 5 April-May	Half term 6 June-July
• Forces • Work done • Deformation and Hooke's Law • Atomic Structure • Properties of metals • Reactions with acids • Reactivity series • Extraction of metals	• Current and potential difference • Resistance • Static electricity • Magnetism and electromagnetism	• Rate of reactions • **Mid-year assessments** • Energetics • Combustion and Thermal decomposition • Nervous system	• Homeostasis • DNA • Inheritance • Cloning • Genetic engineering • Cells and cell cycle • Stem cells	• Transport in cells • Osmosis • Density • Internal energy • Heating and cooling substances • Gas pressure	• Revision • **End of year assessments** • History of the atom • Development of the periodic table • Trends in reactivity

Year 10

Half term 1 September-October	Half term 2 October-December	Half term 3 January-February	Half term 4 February-April	Half term 5 April-May	Half term 6 June-July
• Energy stores and transfers • Power and efficiency • Energy resources • Transpiration • Digestion and enzymes • Heart and lungs • Cancer **Triple:** • Culturing microorganisms • Pressure in gases • Static electricity • Nano-technology • Plan diseases	• Bonding • Communicable disease • Defence against disease • Clinical trials • Quantitative chemistry **Triple:** • Monoclonal antibodies • Quantitative chemistry • Electrochemical cells • Fuel cells	• Current and charge • **Mid-year assessments** • Resistance • Circuits • Sensor circuits • Mains electricity and National Grid • Photosynthesis **Triple:** Radioactivity Fission and Fusion Decomposition	• Respiration • Effect of exercise on respiration • Reactivity of metals • Electrolysis • Acids and pH scale • Forming salts • Nuclear radiatiom **Triple:** • Trophic levels • Food production • Space Physics	• Ecosystems • Food webs • Biodiversity • Analytical chemistry **Triple:** • Reflection and refraction • Sound waves • Uses of waves • Lenses	• **End-of year exams** • Types of waves • Investigating waves • Electromagnetic spectrum • Materials • Potable water **Triple:** • Chemical analysis: Testing for ions • The brain • The eye

Year 11

Half term 1 September-October	Half term 2 October-December	Half term 3 January-February	Half term 4 February-April	Half term 5 April-May
• Nervous system • Reaction time • Homeostasis • Hormones • Rates of reaction • Reversible reactions and equilibrium • Waves and Investigating waves • Electromagnetic radiation • Organic Chemistry	• Evolution of the atmosphere • **Mock 1** • Newton's Law's • Motion graphs • Forces • Momentum (HT) • Hooke's Law	• DNA and genome • Reproduction • Inheritance • Evolution • Earth's resources • Potable water • Magnetism and electromagnetism • Motor effect (HT)	• Revision • **Year 11 Mock Exams**	• Revision

Year 12 - Biology

Half term 1 September-October	Half term 2 October-December	Half term 3 January-February	Half term 4 February-April	Half term 5 April-May	Half term 6 June-July
• Cell structure • Biological molecules • Cell cycle	• Enzymes • Biological membranes • Classification and evolution	• Biodiversity • Exchange and transport • Nucleotides and nucleic acids	• Transport in animals • Diseases and the immune system	• Transport in plants • Communication and homeostasis (Neuronal communication)	• Communication and homeostasis (Hormonal communication) • Photosynthesis

Year 12 - Chemistry

Half term 1 September-October	Half term 2 October-December	Half term 3 January-February	Half term 4 February-April	Half term 5 April-May	Half term 6 June-July
• Amount of substance • Atomic Structure • Bonding	• Energetics • Introduction to Organic Chemistry	• Rates of reaction • Reactions of Organic compounds	• Rates of reaction • Redox • Group Chemistry	• Analysis of Organic compounds • Group Chemistry	• Aromatic Chemistry • Thermodynamics

Year 12 - Physics

Half term 1 September-October	Half term 2 October-December	Half term 3 January-February	Half term 4 February-April	Half term 5 April-May	Half term 6 June-July
• Particles • Waves • Light	• Materials • Mechanics	• Electricity • Circular Motion	• Simple Harmonic Motion • Gravitational Fields	• Nuclear • Thermal	• Nuclear • Thermal

Year 13 - Biology

Half term 1 September-October	Half term 2 October-December	Half term 3 January-February	Half term 4 February-April	Half term 5 April-May
• Excretion • Plant responses • Ecosystems • Evolution	• Respiration • Animal responses • Populations and sustainability • Cloning and biotechnology	• Patterns of inheritance • Cellular control • Manipulating genomes	• Revision	• Revision

Year 13 - Chemistry

Half term 1 September-October	Half term 2 October-December	Half term 3 January-February	Half term 4 February-April	Half term 5 April-May
• Carbonyls and optical isomerism • Thermodynamics	• Acids, bases and buffers • Electrochemistry • Amines and polymers	• Amino acids, proteins and DNA • Transition metals • Organic synthesis and analysis	• Revision	• Revision

Year 13 - Physics

Half term 1 September-October	Half term 2 October-December	Half term 3 January-February	Half term 4 February-April	Half term 5 April-May
• Electric Fields • Capacitors • Magnetic Fields	• Rotational Motion • Practicals and Data	• Thermodynamics • Practicals and Data	• Revision	• Revision