KS4 - Science

	Autumn I	Autumn 2	Spring I	Spring 2	Summer I	Summer 2
Year 10	PI Conservation & Dissipation of Energy Reducing energy losses. Conduction, convection and radiation. P4 Electrical Circuits Series and parallel circuits. P5 Electricity in the Home Apply electricity to uses in the home. P7 Radioactivity Alpha, beta and gamma radiation.	CI Atomic Structure The insides of an atom and the nucleus. C2 Periodic Table The origins and development of the periodic table. C4 Chemical Calculations Carry out calculations related to RAM, moles and yield. C6 Electrolysis How to use electrolysis separate compounds.	C3 Structure and Bonding Ionic, covalent and metallic bonding. C7 Energy Changes Exothermic and endothermic reactions. BI Cell Structure and Transport The structure of animal and plant cells and the movement of substances via diffusion, osmosis and active transport. B4 Organising Animals and Plants Blood, the heart and transport systems in animals and plants.	B2 Cell Division Mitosis, meiosis and stem cells. B3 Organisation of the Digestive System Structure of the digestive system and enzymes.	 B9 Respiration Aerobic and anaerobic respiration. B8 Photosynthesis Factors affecting photosynthesis. 	Revision Common revision techniques, reviewing exam-style questions and undergoing both 'content' and 'skill' assessments.
Year II	 P8 Forces in Balance Sorting forces into vectors and scalars and representing forces with diagrams. P9 Motion Mapping motion using speed-time and acceleration-time graphs. P10 Forces and Motion Acceleration, momentum, braking and safety in cars. P12 Wave Properties The nature and properties of waves. P13 Electromagnetic Vaves The electromagnetic spectrum and uses of waves within it. P15 Electromagnetism Magnets and the motor effect. 	C8 Rates of Reaction Factors affecting the rate of a chemical reaction. C9 Crude Oil Hydrocarbons and fractional distillation. C12 Chemical Analysis Pure substances, mixtures and chromatography. C13 Earth's Atmosphere The history of the early atmosphere, greenhouse effect and climate change. C14 Earth's Resources Water treatment, finite resources and recycling.	BIO Human Nervous System The nervous system, reflexes and homeostasis. BII Hormonal Coordination Hormones, diabetes and human reproduction. BI3 Reproduction Types of reproduction, DNA and the genome. BI4 Variation and Evolution Natural selection, variation and genetic engineering	B15 Genetics and Evolution Evolution, extinction and fossils. B16 Adaptation Plant and animal adaptation in different habitats. B17 Organising the Ecosystem Feeding relationships and the carbon cycle. B18 Biodiversity The human population, land, water and air pollution.	Revision Common revision techniques, reviewing exam-style questions and undergoing both 'content' and 'skill' assessments.	Official Examinations