

Blessed Robert Sutton

Science

	Science	Physics	Chemistry	Biology
Topics taught in Year 7	<ul style="list-style-type: none"> • Introduction to Science • The Human Body • Particles • Why things move • Acids in Action • Energy 			
Topics taught in Year 8	<ul style="list-style-type: none"> • Staying Alive • Metals • Forces in Action • Genetics • Earth Materials and Rock 			
Topics taught in Year 9	<ul style="list-style-type: none"> • Environment • Waves • Space • A start is also made on a GCSE topic for each of Biology, Chemistry, Physics 			
KS4 Specifications and topics taught	<p>AQA GCSE Combined Science: Trilogy 8464</p> <p>Biology</p> <ul style="list-style-type: none"> • Cell biology • Organisation • Infection and response • Bioenergetics • Homeostasis and response • Inheritance, variation and evolution • Ecology <p>Chemistry</p> <ul style="list-style-type: none"> • Atomic structure and the periodic table • Bonding, structure, and the properties of matter • Quantitative chemistry • Chemical changes • Energy changes • The rate and extent of chemical change • Organic chemistry • Chemical analysis • Chemistry of the atmosphere • Using resources <p>Physics</p> <ul style="list-style-type: none"> • Energy 	<p>AQA GCSE Physics 8463</p> <ul style="list-style-type: none"> • Energy • Electricity • Particle model of matter • Atomic structure • Forces • Waves • Magnetism and electromagnetism • Space physics 	<p>AQA GCSE Chemistry 8462</p> <ul style="list-style-type: none"> • Atomic structure and the periodic table • Bonding, structure, and the properties of matter • Quantitative chemistry • Chemical changes • Energy changes • The rate and extent of chemical change • Organic chemistry • Chemical analysis • Chemistry of the atmosphere • Using resources 	<p>AQA GCSE Biology 8461</p> <ul style="list-style-type: none"> • Cell biology • Organisation • Infection and response • Bioenergetics • Homeostasis and response • Inheritance, variation and evolution • Ecology • Key ideas

	<ul style="list-style-type: none"> • Electricity • Particle model of matter • Atomic structure • Forces • Waves • Magnetism and electromagnetism 			
KS5 Specifications and topics taught		AQA GCE Physics 7408 <ul style="list-style-type: none"> • Measurements and their errors • Particles and radiation • Waves • Mechanics and materials • Electricity • Further mechanics and thermal physics • Fields and their consequences • Nuclear physics • Plus one from Astrophysics, medical physics, engineering physics, turning points in physics, electronics 	AQA GCE Chemistry 7405 <ul style="list-style-type: none"> • Atomic structure • Amount of substance • Bonding, Energetics, Kinetics • Chemical equilibria • Oxidation, reduction and redox equations • Thermodynamics • Rate equations • Equilibrium constant K_p for homogeneous systems • Electrode potentials and electrochemical cells • Acids and bases • Inorganic chemistry • Periodicity • Group 2, the alkaline earth metals • Group 7(17), the halogens • Properties of Period 3 elements and their oxides • Transition metals • Reactions of ions in aqueous solution • Organic chemistry • Introduction to organic chemistry • Alkanes, Halogenoalkanes, Alkenes, Alcohols • Organic analysis • Optical isomerism • Aldehydes and ketones • Carboxylic acids and derivatives • Aromatic chemistry • Amines, Polymers • Amino acids, proteins and DNA • Organic synthesis • Nuclear magnetic resonance spectroscopy • Chromatography 	AQA GCE Biology 7402 <ul style="list-style-type: none"> • Biological molecules • Cells • Organisms exchange substances with their environment • Genetic information, variation and relationships between organisms • Energy transfers in and between organisms • Organisms respond to changes in their internal and external environments • Genetics, populations, evolution and ecosystems • The control of gene expression