

	Term	1	2	3	4	5	6
First Form:	Title	<b>Human Biology Forces &amp; Electricity</b>	<b>Chemicals around Us Plant Biology</b>	<b>Energy for the Future Our Earth</b>	<b>Variation &amp; Genetics Electricity</b>	<b>The Periodic Table Extended Project</b>	<b>Basic Skills 1</b>
	Fertile Question	<i>What makes something 'alive?'</i> <i>How does gravity work?</i>	<i>How much does gas weigh?</i> <i>Do plants have feelings?</i>	<i>What will be the fuels of the future?</i> <i>Is the Earth getting warmer?</i>	<i>What makes you, you?</i> <i>What is electricity?</i>	<i>What's a 'pure' substance?</i>	<i>What makes a Scientist?</i>
	Core Content	Life processes; Cells; Organ Systems; Organ Donation; Food and Digestion; Forces; Mass and Weight; Speed; Circuits	Matter; Separating mixtures; Chromatography; Metals and non-metals; Acids & Alkalis; Microscopy; Green plants & photosynthesis; Respiration; Genetic Engineering	Energy; Transferring heat; Fossil fuels; Generating Electricity; Earth's structure; Our atmosphere; Global warming; The Rock cycle; Metals	Habitats; Classification; Adaptations; DNA; Cloning; Electricity and Power; Magnetism; Binary and Decimal numbers	Chemical equations; The periodic table; Scientific Research; Evaluating sources of information	Forming a hypothesis; Designing an investigation; Analysing results; Evaluating an experiment
	Term	1	2	3	4	5	6
Second Form	Title	<b>The Universe Materials</b>	<b>Human Survival Forces &amp; Light</b>	<b>Chemical Reactions Plant Survival</b>	<b>Energy &amp; Electricity Oil</b>	<b>Health &amp; Disease Extended Project</b>	<b>Basic Skills 2</b>
	Fertile Question	<i>Are we alone?</i> <i>What's the best material for a space suit?</i>	<i>Are humans unique?</i> <i>What is light?</i>	<i>What's the most reactive substance?</i> <i>Could we grow plants in space?</i>	<i>How can we make electricity?</i> <i>Could you light a fire in space?</i>	<i>Is genetic engineering ethical?</i>	<i>What makes a Scientist?</i>
	Core Content	The Planets; The moon; Days & Seasons; Gravity, Stars & Galaxies; The Universe; Elements and Compounds; Polymers; Limestone;	Cells; Human Pregnancy & Reproduction; Natural Selection & Evolution; Genetics; Force & Motion; Balanced & Unbalanced Forces; Speed & Velocity; Sound & Light	Reactivity of metals; Reactions of acids and carbonates; Rates of reaction; Thermal Decomposition; Oxidation & Reduction; Photosynthesis; Plant Nutrition; Predator & Prey	Energy & Efficiency; Power & Generating Electricity; Magnetism; Oil; Combustion; Polymers; Renewable Energy; Biofuels; Acid Rain; Global Warming	Diet & Nutrition; Alcohol, Smoking & Drugs; Health & Disease; Microbiology; Stem Cells & Genetic Engineering; Scientific Research; Evaluating sources of information	Forming a hypothesis; Designing an investigation; Analysing results; Collecting secondary evidence; Evaluating results; Evaluating a method

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Third Form Biology	Title	<b>Key Concepts in Biology</b>	<b>Cells &amp; Control</b>	<b>Genetics</b>	<b>Natural Selection &amp; Genetic Modification</b>	<b>Health, Disease &amp; the Development of Medicines</b>	<b>Basic Skills 3</b>
	Fertile Question	<i>What are we made of?</i>	<i>How do you know you're real?</i>	<i>Where do you fit in the animal kingdom?</i>	<i>Is genetic engineering ethical?</i>	<i>Could a bacteria or virus wipe out the human race?</i>	<i>What makes a Scientist?</i>
	Core Content	Cells; Movement of substances; Size and Scale; Microscopy; Enzymes	The Nervous System; Cell Division; Common Systems; Growth	Classification; Variation & Inheritance; Control Systems; Genetic Analysis; Genetic Engineering; Selective Breeding	Evolution; Behaviour; Genetic analysis; Biotechnology; Genetic Engineering	Pathogens; Antibiotics & Antiseptics; Disease; Development of medicine	Forming a hypothesis; Designing an investigation; Analysing results; Evaluating an experiment
	Term	1	2	3	4	5	6
Third Form Chemistry	Title	<b>Key Concepts in Chemistry</b>	<b>States of Matter &amp; Mixtures</b>	<b>Chemical Changes</b>	<b>Extracting Metals and Equilibria</b>	<b>Groups of the Periodic Table</b>	<b>Basic Skills 3</b>
	Fertile Question	<i>Why do things react?</i>	<i>How could you separate gases?</i>	<i>How strong is the strongest acid, and how is it contained?</i>	<i>Are all metals solid at room temperature?</i>	<i>What's the most dangerous element?</i>	<i>What makes a Scientist?</i>
	Core Content	Atomic structure; The periodic table; Ionic compounds and analysis; Covalent compounds; Quantitative chemistry;	Separation techniques; Quantitative analysis; Organic chemistry; States of Matter; Pure substances; Production of potable water	Acids; Ionic compounds; Chemical analysis; Quantitative analysis	Obtaining and using metals; Gases, equilibria and ammonia; Reactivity series, redox reactions; Metal extraction; Dynamic equilibrium	Properties and reactions of elements; Patterns in reactivity; Trends in properties; Word and symbol equations	Forming a hypothesis; Designing an investigation; Analysing results; Collecting secondary evidence; Evaluating results; Evaluating a method

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Third Form Physics	Title	<b>Key Concepts in Physics</b>	<b>Motion &amp; Forces</b>	<b>Conservation of Energy &amp; Waves</b>	<b>Light and the EM Spectrum</b>	<b>Radioactivity</b>	<b>Basic Skills 3</b>
	Fertile Question	<i>Why do we need units?</i>	<i>Is the force of gravity always the same?</i>	<i>Can energy be destroyed?</i>	<i>How many kinds of light are there?</i>	<i>How do we know what an atom looks like?</i>	<i>What makes a Scientist?</i>
	Core Content	SI units; Multiples of units; Conversion of Units; Significant figures; Standard form	Momentum; Use of the equation: $v^2 - u^2 = 2 \times a \times x$ ; Velocity/time graphs; Newton's laws; Inertial mass; Human reaction times	Generation and transmission of electricity; Energy and the future; Patterns and trends in the use of energy resources; Visible light and the Solar System; Speed, frequency and wavelength of waves in a solid and a fluid	Behaviour of light; Properties, uses and dangers of different wavelengths of light; Absorbance, transmittance, refraction and reflection of electromagnetic waves; Electromagnetic waves in different substances	Measuring and detecting radioactivity; Changes in the atomic model over time; Contamination and irradiation effects; The atom; The typical size and scale of atoms and small molecules	Forming a hypothesis; Designing an investigation; Analysing results; Evaluating an experiment