

SCIENCE - INFORMATION FOR PARENTS

	AUTUMN 1	AUTUMN 2	SPRING 1	SPRING 2	SUMMER 1	SUMMER 2
YEAR 7	<p>Biology B1 Cells Microscopes Cell Structure Animal and Plant Cells Magnification and Practical Unicellular Organisms Diffusion Specialised Cells</p> <p>Chemistry C1 Particle model Properties of states of matter Changes of state Practical - heating water Melting and boiling points Gas pressure</p>	<p>Physics P1 Fuels and energy stores Energy stores and transfers Power Energy resources</p>	<p>Biology B2: The Skeleton Biomechanics Principles of Organisation</p> <p>Chemistry C2: Atomic model Symbols and formulae Properties</p>	<p>Physics P2: Speed Distance-time graphs Relative motion</p>	<p>Chemistry C3 Pure and impure Diffusion Pure and impure Separation Techniques: filtering, evaporation Practical demo: filtration, evaporation and Practical: Chromatography</p>	<p>Physics P3: Basic forces and diagrams Naming and categorising forces Stretching and squashing forces Moments and simple machines Balanced forces Forces and motion</p>
YEAR 8	<p>Biology B3 Healthy Diet, Energy Requirements, and Dietary Imbalance Digestive Organs Gut Bacteria</p> <p>Chemistry C2 Atomic model (1) Calculating subatomic particles (1) Electronic structure linked to periodic table (1)</p>	<p>Physics P4 Pressure in liquids Atmospheric pressure Pressure calculations</p>	<p>Biology B4 Ventilation Gas Exchange Exercise, Asthma and Smoking</p> <p>Chemistry C4 chemical reactions (1) combustion, thermal decomposition (1) conservation of mass (2) demo acids, alkalis, pH (3) practical reactions of acids with metals (1) practical</p>	<p>Physics P5 Types of waves Sound waves Microphones and ultrasound</p>	<p>Physics P6 Light and ray models Interactions of light waves with materials Mirrors, pinhole cameras and the eye Detecting light and colour</p>	
YEAR 9	<p>Biology B1 (year 7) Microscopes Cell Structure Animal and Plant Cells Magnification, Microscope Practical Unicellular Organisms Diffusion Specialised Cells</p> <p>Chemistry C2 (year 7) atomic model (1) calculating subatomic particles (1) electronic structure linked to periodic table (1)</p>	<p>Physics P7 Conductors and insulators Circuits, current, potential difference and resistance Series and parallel circuits</p> <p>Physics P8 Static charges Electric fields</p>	<p>Biology B8 Food Chains Food Webs and Interdependence Insect Pollination and Food Security</p> <p>Chemistry C6 metals and non metals properties (1) periodic table and Mendeleev (1) group 1 reactivity (1) demo group 7 reactivity (2) practical</p>	<p>Biology B9 DNA and Chromosomes Variation Competition and Natural Selection Biodiversity</p> <p>Physics P5 Types of waves Sound waves Microphones and ultrasound</p>	<p>Chemistry C7 metal reactivity (2) practical metal extraction (1) ceramics, polymers, composites (1)</p> <p>Chemistry C8 structure of earth (1) rock cycle (1) composition of atmosphere (1) carbon cycle (1) global warming and climate change (1) recycling (1)"</p>	<p>Physics P10 Particle motion and density Energy in matter</p>

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<p align="center">YEAR 10</p>	<p>Biology Unit B1 Plant, animal and bacteria cells Specialised Cells Microscopes and Magnification Enzymes Transport in and out of cells Unit B2 Mitosis Cell growth and differentiation Stem Cells Neurones Responding to stimuli</p> <p>Chemistry Unit C1 Atomic Structure Isotopes Mendeleev's Table and the Periodic Table Electronic Configurations Ions Ionic Bonding Covalent Bonding Giant Molecular Substances Metals Models Relative Formula Mass Empirical Formula Concentration of a solution Conservation of Mass Unit C6 The Alkali Metals The Halogens The Noble Gases</p>	<p>Physics Unit P1 Unit P2 Scalars and Vectors Speed, distance and time Equations of motion Velocity time graphs Newtons Laws of Motion Weight and Mass Force and Acceleration Human Reaction Time Stopping Distances Unit P3 Energy Stores and Transfers Efficient Heat Transfer Energy Resources Patterns of energy use Potential and Kinetic Energy Unit P8 Work, energy and power Unit P9 Interacting forces</p>	<p>Biology Unit B3 Meiosis DNA Genetic Terms Monohybrid Inheritance Family Pedigrees Sex Determination Variation and Mutation The Human Genome Project</p> <p>Unit B4 Evolution Classification Selective Breeding Genetic Engineering</p> <p>Chemistry Unit C2 States of Matter Pure substances and mixtures Distillation Filtration and Chromatography Drinking water</p> <p>Physics Unit P4 Waves Wave Equations Waves and boundaries Waves in fluids</p> <p>Unit P5 EM Spectrum Dangers and Uses Changes and Radiation</p>	<p>Biology Unit B5 Health and Disease Common Infections How pathogens spread STIs Human Defences The Immune System Immunisation New Medicines Non commicable diseases Alcohol and Smoking Malnutrition and obesity Cadiovascular disease</p> <p>Chemistry Unit C3 Acids and Alkalis Acids and Bases Neutralisation Making salts from soluble and insoluble ba Electrolysis Investigating electrolysis</p> <p>Unit C4 The reactivity series Metal displacement Metal Reactivity Metal Ores Iron and Aluminum Recycling Metals Life Cycle Assessment The Haber Process</p> <p>Physics Unit P6 Structure of an atom Isotopes Ionising radiation Background Radiation Measuring radioactivity Half Life Dangers of Radiation Contamination and Irradiation</p>	<p>Biology Unit B6 Photosynthesis Specialised Plant Cells Transport in Plants</p> <p>Unit B7 Hormones The Menstrual Cycle Blood Glucose Regulation Diabetes</p>	<p>Biology Unit B8 Blood The Heart Aerobic and Anaerobic Respiration Changes in Heart Rate</p> <p>Unit B9 Ecosystems and Abiotic Factors Biotic Factors Parasitism and Mutualism Fieldwork Techniques Organisms and their enviroment Human effects on ecosystems Biodiversity The Carbon Cycle The Water Cycle The Nitrogen Cycle</p>
<p align="center">YEAR 11</p>	<p>Chemistry Unit C7 Rates of Reactions</p> <p>Physics Unit P10 Circuit Symbols Series and Parallel Circuits Current and Charge Energy and Charge Ohm's Law Resistors I-V Graphs LDR and Thermistors Current heating effect Energy and Power A.c and d.c circuits Mains electricity and the plug</p>	<p>Chemistry Unit C8 Heat energy Changes Reaction Profile Crude Oil Fractional Distillation Alkanes Incomplete combustion Acid Rain Fuels Cracking</p> <p>Physics Unit P12 Magnets and magnetic field Current and magnetism</p> <p>Unit P13 Magnetism and the motor effect Transformers</p>	<p>Physics Unit P14 Changes of State Density Thermal properties of water Pressure and temperature</p> <p>Unit P15 Elastic and Inelastic distortion Springs Forces and Springs</p>	<p>Chemistry Revision of units</p> <p>Physics Revision of units</p> <p>Biology Revision of units</p>	<p>Chemistry Revision of units</p> <p>Physics Revision of units</p> <p>Biology Revision of units</p>	