

Science 5 Year Curriculum

	Autumn Term			Spring Term <i>Mid-year examinations scheduled</i>			Summer Term <i>End of year examinations scheduled</i>		
<b>Year 7</b>	3. Cells	1. Particles and their behaviour  2. Working scientifically	4. Forces	5. Structure and function of body systems	6. Elements, atoms and compounds  8. Reactions	7. Sound	9. Reproduction	10. Acids and alkalis	10. Light  11. Space
<b>Year 8</b>	2. Health and lifestyle	1. The periodic table	3. Electricity and magnetism	5. Biological processes  7. Ecosystems and adaptations	4. Separation techniques	6. Energy	10. Inheritance	8. Metals and other materials	9. Motion and pressure
Year 7 Retrieval time and working scientifically time									
<b>Year 9*</b>	<b><u>Dining on digestion</u></b> Digestive system Enzyme theory Rate of enzyme activity practical Antacids	<b><u>The Earth</u></b> The Earth's structure Atmosphere Climate change Pollutants Carbon cycle	<b><u>Marvellous Matter</u></b> Particle theory States of matter Cooling/heating curves Density Internal energy	<b><u>Powerful Plants &amp; microorganisms</u></b> Diffusion Photosynthesis Limiting factors Plant tissues and organs	<b><u>The Earth</u></b> Types of rocks Rock cycle Water cycle	<b><u>Marvellous Matter</u></b> Specific heat capacity Specific latent heat Gas Pressure and temperature	<b><u>Powerful Plants &amp; microorganisms</u></b> Respiration Useful Plants and microorganisms	<b><u>The Earth</u></b> Finite and renewable resources Recycling Earth's resources - Limestone - Iron - Fuel	<b><u>Marvellous Matter</u></b> Size and structure of atoms History of the atom Radioactivity Half life Nuclear equations
<b>Year 10*</b>	<b><u>Cells, tissues, organs and health</u></b> Cell Biology Organisation Infection and response	<b><u>Atomic structure, the Periodic table and chemical bonds</u></b> Atoms, elements, compounds and mixtures. Development of the periodic table. The structure of the atomic and subatomic particles Structure and bonding Reactivity series	<b><u>Atomic Structure (Radioactivity) &amp; Energy</u></b> Nuclear fission and fusion (triple) Energy stores, KE, GPE, power, efficiency Energy resources	<b><u>Drugs, contraceptives and bioenergetics</u></b> Infection and response Hormonal coordination in human reproduction and contraception <i>Hormonal control in infertility (triple)</i> Bioenergetics	<b><u>Reactivity series and electrolysis – Chemical Changes</u></b> Displacement reactions Energy changes – exothermic and endothermic reactions Extracting metals Electrolysis of aluminum oxide	<b><u>Electricity</u></b> Electricity - circuits Electricity in the home	<b><u>Ecology</u></b> Bioenergetics Ecology	<b><u>Chemical changes (making salts) and Quantitative chemistry</u></b> Acids and alkalis Making salts <i>Thermometric titration (triple) – exothermic reactions</i> Electrolysis of solutions <i>Chemical cells and fuels cells (triple)</i> Chemistry calculations	<b><u>Forces</u></b> Forces and elasticity Force basics – scalar and vector, contact, non contact, resultant forces
<b>Year 11*</b>	<b><u>Homeostasis</u></b> <i>(Required practicals and paper 1 recovered)</i> Homeostasis and response <i>(plant hormones for triple award)</i> Paper 1 and required practicals on Mock	<b><u>Organic chemistry</u></b> Chemical analysis Crude oil and hydrocarbons	<b><u>Waves</u></b> Waves – properties, Electromagnetic Spectrum <i>Waves – Reflection, sound, detection, light &amp; lenses, Visible light, black body radiation (Triple)</i> Car safety and momentum	<b><u>Inheritance, variation and evolution</u></b> Inheritance, variation and evolution	<b><u>Organic chemistry, The Earth's atmosphere and Using resources</u></b> Crude oil and hydrocarbons The Earth's atmosphere	<b><u>Magnetism &amp; Electromagnetism</u></b> Magnetism basics Electromagnetism basics Electromagnetism rules, motors <i>Electromagnetism generator effect, loudspeaker, induction, transformers (triple)</i>	<b><u>Final exam preparation</u></b> <i>Exam Preparation and GCSE Examinations</i>	<b><u>Final exam preparation</u></b> Using resources <i>Exam Preparation and GCSE Examinations</i>	<b><u>Space (triple) &amp; recap of Particle model matter</u></b> <i>Exam Preparation and GCSE Examinations</i>  <i>Space (Triple) – solar system, stars, satellites, Red-shift &amp; big bang</i>