

The science curriculum

Science curriculum vision			
We believe that all our pupils should leave school with a strong sense of excitement and curiosity about natural phenomena. Pupils will gain an appreciation of the significance of science within their own lives and the future importance of science in solving the global challenges we currently face. By conducting their own scientific enquiries, pupils will not only develop their own practical skills but they will also develop an understanding of how scientific concepts are established, critiqued and continuously revised upon new evidence. The science experience ensures that pupils are well equipped with the crucial skills and knowledge that are essential for a wide range of careers.			
Key stage 3 – Units of study			
Term	Year 7	Year 8	Year 9
1	<i>Physics: Matter</i>	<i>Physics: Space Chemistry: Reactions</i>	<i>Biology: Ecosystems</i>
2	<i>Chemistry: Particles Biology: Cells</i>	<i>Chemistry: Reactions Biology: Respiration</i>	<i>Physics: Waves Chemistry: Acids and Alkali's</i>
3	<i>Biology: Cells Physics: Energy</i>	<i>Biology: Respiration Physics: Motion</i>	Begin GCSE content <i>Key concepts in Biology – Cells, transport and enzyme Key concepts in Chemistry – atomic structure and periodic table</i>
4	<i>British Science week Chemistry: Periodic table</i>	<i>British Science Week Chemistry: Separation techniques</i>	<i>Physics – Motion Biology: Cells and control</i>
5	<i>Biology: Gas exchange</i>	<i>Biology: Nutrition</i>	<i>Chemistry: Matters and mixtures</i>
6	<i>Physics: Forces</i>	<i>Physics: Waves</i>	<i>Physics: Forces</i>

Key stage 4 – Units of study		
Pearson Edexcel GCSE (9-1) in Combined Science (1SC0)		
Term	Year 10	Year 11
1	<i>Biology – Genetics Chemistry – Electrolysis</i>	<i>Biology – Plant structures and their functions Physics – Radioactivity Chemistry – Acids and Alkali's Chemistry – Groups in the Periodic Table</i>
2	<i>Physics – Waves and Electromagnetic Spectrum Biology – Natural Selection and Genetic Modification Chemistry – Acids and Alkali's</i>	<i>Trial exams Biology – Ecosystems and Material cycls Biology -Exchange and Transport</i>
3	<i>Trial exams Physics – Radioactivity Biology – Health and Disease</i>	<i>Physics – Forces and their effects Chemistry – Rates of Reactions Physics – Electricity Trial exams</i>
4	<i>Chemistry – Groups in the Periodic Table Physics – Particle model</i>	<i>Biology – Animal coordination, Control and Homeostasis Physics – Particle model Physics – Electromagnetism Chemistry- Fuels and atmospheric science</i>
5	<i>Physics – Particle model Biology – Plant structures and their functions</i>	
6	<i>Revision Trial exams</i>	

Key stage 5 – Units of study		
Pearson Edexcel Level 3 Advanced GCE in Biology B (9BIO)		
Term	Year 12	Year 13
1	<i>Water and inorganic ions Carbohydrates Lipids Cells</i>	<i>Respiration Modern Genetics Origins of Genetic Variation</i>
2	<i>Proteins Enzymes</i>	<i>Origins of Genetic Variation Photosynthesis</i>

	<i>Protein synthesis</i> <i>Mitosis</i> <i>Sexual reproduction in animal and plants</i>	<i>Control systems</i>
3	<i>Classification</i> <i>Natural Selection</i> <i>Cell transport machines</i>	<i>Microorganisms</i> <i>Control systems</i>
4	<i>Biodiversity</i> <i>Gas Exchange</i> <i>Transport animals</i>	<i>Microorganisms</i> <i>Ecology</i>
5	<i>Transport animals</i> <i>Transport in plants</i>	
6	<i>Trial exams</i> <i>Ecology</i>	