Year 9 Long Term Scheme of Learning 2024-25

Subject: Science

Date (w/b)	Exams	Biology	Chemistry	Physics (2024 / 2025)
02/09/2024		**Ecosystems** • Aerobic respiration • Anaerobic respiration • Biotechnology • Photosynthesis • Leaves • Investigating Photosynthesis • Plant minerals	**KS3 Types of Reactions.** • Chemical equations • Combustion • Thermal decomposition • Conservation of mass • Exothermic & endothermic reactions	**KS3 Waves.** • TBC with DSY
09/09/2024				
16/09/2024				
23/09/2024				
30/09/2024				
07/10/2024				
14/10/2024				
21/10/2024				
04/11/2024		**B1 Cell Biology** • B1 Animal Cells (+ B2.1 Hierarchy) • B1.1 Plant cells • B1.1 Cell differentiation • B1.1 Microscopy • B1.1 Required practical 1 - Microscopy	**C1 Atomic Structure** • Elements, compounds & mixtures • How mixtures can be separated • Writing simple formulae using element symbols • Writing equations for the formation of compounds from elements	**P1 – Energy Stores & Transfers** • P1.1 – Changes in energy stores • P1.2 – Conservation of energy • P1.3 – Energy & Work • P1.4 – Gravitational Potential Energy • P1.5 – Kinetic & Elastic energy
11/11/2024				
18/11/2024				
25/11/2024				
02/12/2024				
09/12/2024				
16/12/2024				
06/01/2025		**Assessment week** • Stem Cells / Chromosomes • Mitosis / Cell cycle	**C1 Atomic Structure** • How the current model of the atom was developed	**P1 – Energy Stores & Transfers cont.** • P1.6 – Energy dissipation • P1.7 – Energy & efficiency • P1.8 – Electrical appliances P1.9 – Electrical power
13/01/2025				
20/01/2025				

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27/01/2025		• Diffusion • Diffusion • Review of above	• What model do we use to represent an atom today What are isotopes? • How electrons are arranged in an atom	
03/02/2025				
10/02/2025				
24/02/2025		**B2 Organisation** • B2.2 Blood • B2.2 Heart Structure • B2.2 Gas Exchange • B2.2 Blood Vessels	**C1 The Periodic Table** • Development of the Periodic Table • How the modern Periodic Table is arranged • Properties of metals in the Periodic Table • Properties of metal and non-metal oxides	**P2 – Energy transfer by heating** • P2.1 - Energy transfer by conduction • P2.2 - Infrared radiation • P2.3 – More about IR radiation • P2.4 – Specific Heat Capacity
03/03/2025				
10/03/2025				
17/03/2025				
24/03/2025				
31/03/2025				
21/04/2025		• Human Digestive system • Required Practical Activity: Food Tests • Properties on enzymes • Human Digestive enzymes	**C1 The Periodic Table** • Importance of the outer shell electrons in atoms • Group 0 elements the Noble Gases • Group 1 elements the Alkali Metals • Group 7 elements the Halogens and their displacement reactions • Explaining reaction trends and predicting reactivity.	**P2 – Energy transfer by heating cont.** • P2.5 – Heating & Insulating Buildings **P3 – Energy resources** • P3.1 – Energy demands • P3.2 – P3.3 – Energy resources • P3.4 – P3.5 – Environment & Issues
28/04/2025				
05/05/2025				
12/02/05				
19/05/2025				
02/06/2025		**Assessment fortnight** • Required Practical Activity: pH and Amylase • Required Practical 7 – Sampling (another opportunity in Y10 Summer)	**End of Year Exam** **C3 Quantitative Chemistry** • Writing formulae and balancing chemical equations • Law of conservation of mass – key concept	**P4 – Electric Circuits** • P4.2 – Current & Charge • P4.3 – Potential difference & Resistance
09/06/2025				
16/06/2025				
23/06/2025				
30/06/2025				
07/07/2025				
14/07/2025				