

# Year 9 Long Term Scheme of Learning 2023-24

## Science

Date (w/b)	Exams	Biology	Chemistry	Physics
4/9/23		<b>Ecosystems</b> <ul style="list-style-type: none"> <li>Aerobic respiration</li> <li>Anaerobic respiration</li> <li>Biotechnology</li> <li>Photosynthesis</li> <li>Leaves</li> <li>Investigating Photosynthesis</li> <li>Plant minerals</li> </ul>	<b>KS3 Types of Reactions.</b> <ul style="list-style-type: none"> <li>Chemical equations</li> <li>Combustion</li> <li>Thermal decomposition</li> <li>Conservation of mass</li> <li>Exothermic &amp; endothermic reactions</li> </ul>	<b>KS3 Waves.</b> <ul style="list-style-type: none"> <li>Transverse &amp; Longitudinal waves</li> <li>Frequency &amp; Amplitude</li> <li>Electromagnetic Spectrum</li> <li>Transmission &amp; Absorption</li> <li>Reflecting light</li> <li>Refracting light</li> <li>Colours of light</li> </ul>
11/9/23				
18/9/23				
25/9/23				
2/10/23				
9/10/23				
16/10/23				
30/10/23		<b>B1 Cell Biology</b> <ul style="list-style-type: none"> <li>B1 Animal Cells (+ B2.1 Hierarchy)</li> <li>B1.1 Plant cells</li> <li>B1.1 Cell differentiation</li> <li>B1.1 Microscopy</li> <li>B1.1 Required practical 1 - Microscopy</li> </ul>	<b>C1 Atomic Structure</b> <ul style="list-style-type: none"> <li>Elements, compounds &amp; mixtures</li> <li>How mixtures can be separated</li> <li>Writing simple formulae using element symbols</li> <li>Writing equations for the formation of compounds from elements</li> </ul>	<b>P1 – Energy Stores &amp; Transfers</b> <ul style="list-style-type: none"> <li>P1.1 – Changes in energy stores</li> <li>P1.2 – Conservation of energy</li> <li>P1.3 – Energy &amp; Work</li> <li>P1.4 – Gravitational Potential Energy</li> <li>P1.5 – Kinetic &amp; Elastic energy</li> </ul>
6/11/23				
13/11/23				
20/11/23				
27/11/23				
4/12/23				
11/12/23				
1/1/24		<b>Assessment week</b> <ul style="list-style-type: none"> <li>Stem Cells / Chromosomes</li> <li>Mitosis / Cell cycle</li> <li>Diffusion</li> <li>Diffusion</li> <li>Review of above</li> </ul>	<b>C1 Atomic Structure</b> <ul style="list-style-type: none"> <li>How the current model of the atom was developed</li> <li>What model do we use to represent an atom today What are isotopes?</li> <li>How electrons are arranged in an atom</li> </ul>	<b>P1 – Energy Stores &amp; Transfers cont.</b> <ul style="list-style-type: none"> <li>P1.6 – Energy dissipation</li> <li>P1.7 – Energy &amp; efficiency</li> <li>P1.8 – Electrical appliances</li> <li>P1.9 – Electrical power</li> </ul>
8/1/24				
15/1/24				
22/1/24				

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29/1/24				
5/2/24				
12/2/24				
26/2/24		<b>B2 Organisation</b> <ul style="list-style-type: none"> <li>B2.2 Blood</li> <li>B2.2 Heart Structure</li> <li>B2.2 Gas Exchange</li> <li>B2.2 Blood Vessels</li> </ul>	<b>C1 The Periodic Table</b> <ul style="list-style-type: none"> <li>Development of the Periodic Table</li> <li>How the modern Periodic Table is arranged</li> <li>Properties of metals in the Periodic Table</li> <li>Properties of metal and non-metal oxides</li> </ul>	<b>P2 – Energy transfer by heating</b> <ul style="list-style-type: none"> <li>P2.1 - Energy transfer by conduction</li> <li>P2.2 - Infrared radiation</li> <li>P2.3 – More about IR radiation</li> <li>P2.4 – Specific Heat Capacity</li> </ul>
4/3/24				
11/3/24				
18/3/24				
25/3/24				
15/4/24				
22/4/24				
29/4/24				
6/5/24				
13/5/24				
20/5/24				
3/6/24		<b>Assessment fortnight</b> <ul style="list-style-type: none"> <li>Required Practical Activity: pH and Amylase</li> <li>Required Practical 7 – Sampling (another opportunity in Y10 Summer)</li> </ul>	<b>End of Year Exam</b> <b>C3 Quantitative Chemistry</b> <ul style="list-style-type: none"> <li>Writing formulae and balancing chemical equations</li> <li>Law of conservation of mass – key concept</li> </ul>	<b>P4 – Electric Circuits</b> <ul style="list-style-type: none"> <li>P4.2 – Current &amp; Charge</li> <li>P4.3 – Potential difference &amp; Resistance</li> </ul>
10/6/24				
17/6/24				
24/6/24				
1/7/24				
8/7/24				
15/7/24				

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