

## Stepping Up to Year 11 plan – Combined Science

Science	Outline of learning	Tasks	Resource Links	Self Assessment
<b>Week 1</b>	<b>Consolidation of Year 10 Biology Knowledge</b> B4 Bioenergetics <ul style="list-style-type: none"> <li>Aerobic &amp; Anaerobic Respiration</li> <li>Photosynthesis</li> </ul> B5 Homeostasis and response <ul style="list-style-type: none"> <li>Nervous System</li> <li>Controlling sugar levels</li> <li>Menstrual cycle</li> </ul>	<ul style="list-style-type: none"> <li>Make a table or write a paragraph to compare and contrast the 2 types of respiration</li> <li>Produce a mind map on the 3 factors that control the rate of photosynthesis and with annotated graphs.</li> <li>Design a flow chart showing how the body controls sugar levels.</li> <li>Make a table showing the menstrual cycle day by day. It needs to show hormone changes and what happens to the egg and the uterus lining</li> <li>Produce a Required practical on a page for Measuring rate of Photosynthesis and for reaction rate</li> </ul>	<ul style="list-style-type: none"> <li>Revision Guides Unit B3 and B4</li> <li>Respiration <a href="https://members.gcsepod.com/shared/podcasts/title/10941/67161">https://members.gcsepod.com/shared/podcasts/title/10941/67161</a></li> <li>Photosynthesis <a href="https://members.gcsepod.com/shared/podcasts/title/10940/67250">https://members.gcsepod.com/shared/podcasts/title/10940/67250</a></li> <li>Nervous System <a href="https://members.gcsepod.com/shared/podcasts/title/10943/67129">https://members.gcsepod.com/shared/podcasts/title/10943/67129</a></li> <li>Controlling Sugar Levels &amp; Menstrual cycle <a href="https://members.gcsepod.com/shared/podcasts/title/10944/66887">https://members.gcsepod.com/shared/podcasts/title/10944/66887</a></li> <li>Firefly Required Practical's <a href="https://hwga.fireflycloud.net/science/key-stage-4/required-practicals">https://hwga.fireflycloud.net/science/key-stage-4/required-practicals</a></li> </ul> <p><b>MyGCSEScience</b></p> <ul style="list-style-type: none"> <li>Biology Units 4 &amp; 5 videos</li> </ul>	<p><b>KS4 Science Quizzes</b> <a href="https://hwga.fireflycloud.net/science/ks4-quizzes">https://hwga.fireflycloud.net/science/ks4-quizzes</a></p> <p><b>GCSEpod</b> Bioenergetics and Homeostasis task sets</p> <ul style="list-style-type: none"> <li>Photosynthesis</li> <li>Respiration</li> <li>Nervous System</li> <li>Menstrual Cycle</li> </ul> <p><b>MyGCSEScience</b></p> <ul style="list-style-type: none"> <li>Answer &amp; mark 2/3 questions</li> </ul>
<b>Week 2</b>	<b>Consolidation of Year 10 Chemistry Knowledge</b> C3 Quantitative Chemistry <ul style="list-style-type: none"> <li>Relative Formula Mass</li> <li>Conservation of mass</li> <li>Concentration of solutions</li> </ul> C6 Rate and extent of chemical change <ul style="list-style-type: none"> <li>Rate of reaction graphs</li> <li>Factors affecting reaction rate</li> <li>Measuring and calculating reaction rates</li> </ul>	<ul style="list-style-type: none"> <li>Make a one-page poster or mind map showing how to calculate relative formula mass and concentrations of solutions as well as explain what conservation of mass is and how we can prove it</li> <li>Draw a reaction graph and annotate what is happening at each part of the reaction add other reaction rate graphs and compare their reactions to the original.</li> <li>Write a paragraph explaining how four factors affect the rate of reaction</li> <li>Make a Required Practical on a Page for Measuring reaction rates (Marble chips and Sodium Thiosulphate)</li> </ul>	<ul style="list-style-type: none"> <li>Revision guides Unit C3 and C6</li> <li>Relative Formula Mass <a href="https://members.gcsepod.com/shared/podcasts/title/10957/66711">https://members.gcsepod.com/shared/podcasts/title/10957/66711</a></li> <li>Concentration of solution <a href="https://members.gcsepod.com/shared/podcasts/title/10958/66841">https://members.gcsepod.com/shared/podcasts/title/10958/66841</a></li> <li>Rates of reaction <a href="https://members.gcsepod.com/shared/podcasts/title/10963/66788">https://members.gcsepod.com/shared/podcasts/title/10963/66788</a></li> <li>Firefly Required Practical's <a href="https://hwga.fireflycloud.net/science/key-stage-4/required-practicals">https://hwga.fireflycloud.net/science/key-stage-4/required-practicals</a></li> </ul> <p><b>MyGCSEScience</b></p> <ul style="list-style-type: none"> <li>Chemistry Unit 3 and Unit 6 videos</li> </ul>	<p><b>KS4 Science Quizzes</b> <a href="https://hwga.fireflycloud.net/science/ks4-quizzes">https://hwga.fireflycloud.net/science/ks4-quizzes</a></p> <ul style="list-style-type: none"> <li>Relative Mass</li> <li>Rates of Reaction</li> <li>Factors affecting reaction rate</li> </ul> <p><b>GCSEpod</b> Quantitative Chemistry and Rates of reaction tasks set</p> <p><b>MyGCSEScience</b></p> <ul style="list-style-type: none"> <li>Answer &amp; mark 2/3 questions</li> </ul>

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<p><b>Week 3</b></p>	<p><b>Consolidation of Year 10 Physics Knowledge</b> P5 Forces</p> <ul style="list-style-type: none"> <li>Weight, Mass &amp; Gravity</li> <li>Forces &amp; Elasticity</li> <li>Distance/Time &amp; Velocity/Time graphs</li> </ul> <p>P6 Waves</p> <ul style="list-style-type: none"> <li>Wave types &amp; features</li> <li>Electromagnetic Spectrum uses and dangers</li> </ul>	<ul style="list-style-type: none"> <li>Write a 6-mark answer comparing and contrasting mass and weight and explaining how we can use mass and gravitational field strength to calculate weight.</li> <li>Produce a Require Practical on a page for Investigating Springs, investigating motion and for Investigating waves</li> <li>Make an annotated revision poster on distance/time and velocity/time graphs highlighting the difference and key features.</li> <li>Make a mind map of the Electromagnetic spectrum, showing wavelength, frequency, uses and dangers for each part of the spectrum</li> </ul>	<ul style="list-style-type: none"> <li>Revision Guides Unit P5 and P6</li> <li>Firefly Required Practical's <a href="https://hwga.fireflycloud.net/science/key-stage-4/required-practicals">https://hwga.fireflycloud.net/science/key-stage-4/required-practicals</a></li> <li>Forces &amp; Elasticity <a href="https://members.gcsepod.com/shared/podcasts/title/10987/67446">https://members.gcsepod.com/shared/podcasts/title/10987/67446</a></li> <li>Forces &amp; Motion <a href="https://members.gcsepod.com/shared/podcasts/title/10988/67462">https://members.gcsepod.com/shared/podcasts/title/10988/67462</a></li> <li>Electromagnetic Spectrum <a href="https://members.gcsepod.com/shared/podcasts/title/10991/67579">https://members.gcsepod.com/shared/podcasts/title/10991/67579</a></li> </ul> <p><b>MyGCSEScience</b></p> <ul style="list-style-type: none"> <li>Physics Unit 5 &amp; 6 videos</li> </ul>	<p><b>KS4 Science Quizzes</b> <a href="https://hwga.fireflycloud.net/science/ks4-quizzes">https://hwga.fireflycloud.net/science/ks4-quizzes</a></p> <ul style="list-style-type: none"> <li>Nature of Waves</li> <li>Properties of waves</li> <li>Electromagnetic Waves</li> </ul> <p><b>GCSEpod Waves and EM Spectrum tasks sets</b></p> <p><b>MyGCSEScience</b></p> <ul style="list-style-type: none"> <li>Answer &amp; mark 2/3 questions</li> </ul>
<p><b>Week 4</b></p>	<p><b>Preparation for Year 11 Biology</b> B6 Inheritance, Variation and Evolution</p> <ul style="list-style-type: none"> <li>DNA &amp; Reproduction</li> <li>Genetic Diagrams</li> <li>Inherited Disorders</li> <li>Variation, Evolution &amp; Fossils</li> <li>Selective Breeding and Genetic Engineering</li> <li>Antibiotic Resistance</li> <li>Classification</li> </ul>	<ul style="list-style-type: none"> <li>Learn all keyword definitions on B6 Inheritance, Variation and Evolution Knowledge Organiser</li> <li>On one-side of A4 paper make a flow chart for Selective Breeding and for Genetic Engineering showing what happens step by step.</li> <li>Produce a table or write a paragraph showing the similarities and differences between sexual and asexual reproduction.</li> <li>Write 4 bullet points stating Darwin's Theory of Evolution</li> </ul>	<ul style="list-style-type: none"> <li>Revision Guide B6 Inheritance, Variation and Evolution</li> <li>Reproduction <a href="https://members.gcsepod.com/shared/podcasts/title/10945/66979">https://members.gcsepod.com/shared/podcasts/title/10945/66979</a></li> <li>Variation &amp; Evolution <a href="https://members.gcsepod.com/shared/podcasts/title/10946/66928">https://members.gcsepod.com/shared/podcasts/title/10946/66928</a></li> <li>Genetics &amp; Evolution <a href="https://members.gcsepod.com/shared/podcasts/title/10947/66963">https://members.gcsepod.com/shared/podcasts/title/10947/66963</a></li> <li>Classification <a href="https://members.gcsepod.com/shared/podcasts/title/10948/67110">https://members.gcsepod.com/shared/podcasts/title/10948/67110</a></li> </ul> <p><b>MyGCSEScience</b></p> <ul style="list-style-type: none"> <li>Biology Unit 6 videos</li> </ul>	<p><b>KS4 Science Quizzes</b> <a href="https://hwga.fireflycloud.net/science/ks4-quizzes">https://hwga.fireflycloud.net/science/ks4-quizzes</a></p> <ul style="list-style-type: none"> <li>Genetics Quiz</li> <li>Old &amp; New Species</li> <li>Genetics &amp; Inherited Diseases</li> </ul> <p><b>GCSEPod Assessment on Inheritance, Variation &amp; Evolution</b></p> <p><b>MyGCSEScience</b></p> <ul style="list-style-type: none"> <li>Answer &amp; mark 2/3 questions</li> </ul>
<p><b>Week 5</b></p>	<p><b>Preparation for Year 11 Chemistry</b> C9 Chemistry of the Atmosphere</p> <ul style="list-style-type: none"> <li>Evolution of the Atmosphere</li> <li>Greenhouse gases and climate change</li> <li>Carbon footprints</li> <li>Air Pollution</li> </ul> <p>C10 Using Resources</p>	<ul style="list-style-type: none"> <li>Study &amp; Learn the Knowledge Organisers for units C9 and C10</li> <li>Draw a flow chart showing the evolution of the Atmosphere.</li> <li>Explain the process of the greenhouse effect in 5 bullet points and then write 5 examples of the effects of climate change.</li> <li>Draw a flow diagram for the process of sewage treatment</li> <li>Design a practical on a page for making Potable Water</li> </ul>	<p>Revision Guide C9 Chemistry of the Atmosphere and C10 Using Resources</p> <ul style="list-style-type: none"> <li>Evolution of the atmosphere <a href="https://members.gcsepod.com/shared/podcasts/title/10968/66752">https://members.gcsepod.com/shared/podcasts/title/10968/66752</a></li> <li>Greenhouse effect <a href="https://members.gcsepod.com/shared/podcasts/title/10969/66745">https://members.gcsepod.com/shared/podcasts/title/10969/66745</a></li> <li>Air pollution <a href="https://members.gcsepod.com/shared/podcasts/title/10970/66739">https://members.gcsepod.com/shared/podcasts/title/10970/66739</a></li> <li>Earths resources &amp; potable water <a href="https://members.gcsepod.com/shared/podcasts/title/10971/66724">https://members.gcsepod.com/shared/podcasts/title/10971/66724</a></li> <li>Life Cycle Assessment &amp; Recycling</li> </ul>	<p><b>KS4 Science Quizzes</b> <a href="https://hwga.fireflycloud.net/science/ks4-quizzes">https://hwga.fireflycloud.net/science/ks4-quizzes</a></p> <ul style="list-style-type: none"> <li>Using Resources</li> </ul> <p><b>GCSEPod Assessment on Atmosphere &amp; Using Resources</b></p> <p><b>MyGCSEScience</b></p>

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	<ul style="list-style-type: none"> <li>Finite &amp; renewable resources</li> <li>Recycling</li> <li>Life Cycle Assessments</li> <li>Potable water &amp; water treatment</li> </ul>		<p><a href="https://members.gcsepod.com/shared/podcasts/title/10972/66743">https://members.gcsepod.com/shared/podcasts/title/10972/66743</a></p> <ul style="list-style-type: none"> <li>Firefly Required Practical's</li> </ul> <p><a href="https://hwga.fireflycloud.net/science/key-stage-4/required-practicals">https://hwga.fireflycloud.net/science/key-stage-4/required-practicals</a></p> <p><b>MyGCSEScience</b></p> <ul style="list-style-type: none"> <li>Chemistry Unit 9 &amp; 10 videos</li> </ul>	<ul style="list-style-type: none"> <li>Answer &amp; mark 2/3 questions</li> </ul>
<b>Week 6</b>	<p><b>Preparation for Year 11 Physics</b></p> <p>P7 Magnetism and Electromagnets</p> <ul style="list-style-type: none"> <li>Permanent &amp; induced magnets</li> <li>Electromagnets</li> <li>The motor Effect</li> </ul>	<ul style="list-style-type: none"> <li>Study &amp; Learn the Knowledge Organiser for unit P7</li> <li>Design a practical on a page for making and using an electromagnet</li> <li>Write a paragraph explaining the difference between a induced and permanent magnet</li> </ul>	<p>Revision Guide P7 Magnetism and Electromagnets</p> <ul style="list-style-type: none"> <li>Permanent &amp; Induced Magnets &amp; Magnetic fields</li> </ul> <p><a href="https://members.gcsepod.com/shared/podcasts/title/10992/67335">https://members.gcsepod.com/shared/podcasts/title/10992/67335</a></p> <ul style="list-style-type: none"> <li>Motor effect</li> </ul> <p><a href="https://members.gcsepod.com/shared/podcasts/title/10993/67324">https://members.gcsepod.com/shared/podcasts/title/10993/67324</a></p> <p><b>MyGCSEScience</b></p> <ul style="list-style-type: none"> <li>Physics Unit 7 videos</li> </ul>	<p><b>KS4 Science Quizzes</b></p> <p><a href="https://hwga.fireflycloud.net/science/ks4-quizzes">https://hwga.fireflycloud.net/science/ks4-quizzes</a></p> <ul style="list-style-type: none"> <li>Magnets &amp; electromagnets</li> <li>Magnetism and motor effect</li> </ul> <p><b>GCSEPod</b> Assessment on Magnetism and Electromagnets</p> <p><b>MyGCSEScience</b></p> <ul style="list-style-type: none"> <li>Answer &amp; mark 2/3 questions</li> </ul>

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