

## Stepping Up to Year 11 Plan – Separate 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> B7 Ecology <ul style="list-style-type: none"> <li>Adaptations</li> <li>Organisation</li> <li>Biodiversity</li> <li>Trophic Levels</li> <li>Food production</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>Produce a Required practical on a page for Measuring rate of Photosynthesis and for reaction rate</li> <li>Learn the knowledge organisers for B7</li> <li>Make a poster on biodiversity showing what factors are reducing it and what we are doing to try and maintain and improve it.</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>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>Adaptations <a href="https://members.gcsepod.com/shared/podcasts/title/10793/66161">https://members.gcsepod.com/shared/podcasts/title/10793/66161</a></li> <li>Organisation <a href="https://members.gcsepod.com/shared/podcasts/title/10794/66164">https://members.gcsepod.com/shared/podcasts/title/10794/66164</a></li> <li>Biodiversity <a href="https://members.gcsepod.com/shared/podcasts/title/10795/66171">https://members.gcsepod.com/shared/podcasts/title/10795/66171</a></li> <li>Trophic Levels <a href="https://members.gcsepod.com/shared/podcasts/title/10796/66174">https://members.gcsepod.com/shared/podcasts/title/10796/66174</a></li> <li>Food production <a href="https://members.gcsepod.com/shared/podcasts/title/10797/66180">https://members.gcsepod.com/shared/podcasts/title/10797/66180</a></li> </ul> <p><b>MyGCSEScience</b></p> <ul style="list-style-type: none"> <li>Biology Unit 4 &amp; 7 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>Respiration</li> <li>Photosynthesis</li> <li>Ecology</li> </ul> <p><b>GCSEpod</b> Ecology and Homeostasis tasks set</p> <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> 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> C7 Organic Chemistry <ul style="list-style-type: none"> <li>Hydrocarbons</li> <li>Fractional Distillation</li> <li>Use &amp; Cracking of Crude Oil</li> </ul>	<ul style="list-style-type: none"> <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 linking each factor to collision theory</li> <li>Make a Required Practical on a Page for Measuring reaction rates (Marble chips and Sodium Thiosulphate)</li> <li>Learn and draw the atoms &amp; bonds for all the main Alkanes and Alkenes</li> </ul>	<ul style="list-style-type: none"> <li>Revision guides Unit C6 &amp; C7</li> <li>Rates of reaction <a href="https://members.gcsepod.com/shared/podcasts/title/10867/66783">https://members.gcsepod.com/shared/podcasts/title/10867/66783</a></li> <li>Reversible reactions and dynamic equilibrium <a href="https://members.gcsepod.com/shared/podcasts/title/10868/66817">https://members.gcsepod.com/shared/podcasts/title/10868/66817</a></li> <li>Carbon Compounds <a href="https://members.gcsepod.com/shared/podcasts/title/10869/66730">https://members.gcsepod.com/shared/podcasts/title/10869/66730</a></li> <li>Alkenes &amp; Alcohol <a href="https://members.gcsepod.com/shared/podcasts/title/10870/66823">https://members.gcsepod.com/shared/podcasts/title/10870/66823</a></li> <li>Polymers <a href="https://members.gcsepod.com/shared/podcasts/title/10871/66850">https://members.gcsepod.com/shared/podcasts/title/10871/66850</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 6 &amp; 7 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>Rates of Reaction</li> <li>Factors affecting reaction rate</li> <li>Oil &amp; fractional distillation</li> </ul> <p><b>GCSEpod</b> Rates of reaction and Organic Chemistry tasks set</p> <p><b>MyGCSEScience</b></p> <ul style="list-style-type: none"> <li>Answer &amp; mark 2/3 questions</li> </ul>

Please bring your "Required Practical's on a Page" in September so your teachers can yellow sheet mark them

 Teams Tutorial with Ms G Davies Monday at 5.30 for selected students.

## Stepping Up to Year 11 Plan – Separate Science

<p><b>Week 3</b></p>	<p><b>Consolidation of Year 10 Physics Knowledge</b></p> <p>P4 Atomic Structure</p> <ul style="list-style-type: none"> <li>Isotopes &amp; radiation</li> <li>Nuclear equations &amp; half life</li> <li>Nuclear fission &amp; fusion</li> </ul> <p>P5 Forces</p> <ul style="list-style-type: none"> <li>Weight, Mass &amp; Gravity</li> <li>Forces &amp; Elasticity</li> <li>D/T &amp; V/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 Required 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>Atoms &amp; Nuclear radiation <a href="https://members.gcsepod.com/shared/podcasts/title/10480/64283">https://members.gcsepod.com/shared/podcasts/title/10480/64283</a></li> <li>Hazards and radiation risks <a href="https://members.gcsepod.com/shared/podcasts/title/10481/64288">https://members.gcsepod.com/shared/podcasts/title/10481/64288</a></li> <li>Nuclear fission &amp; fusion <a href="https://members.gcsepod.com/shared/podcasts/title/10482/64291">https://members.gcsepod.com/shared/podcasts/title/10482/64291</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>Moments &amp; Levers <a href="https://members.gcsepod.com/shared/podcasts/title/10486/64298">https://members.gcsepod.com/shared/podcasts/title/10486/64298</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 units 4, 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>Properties of radiation</li> <li>Nature of Waves</li> <li>Properties of waves</li> <li>Electromagnetic Waves</li> </ul> <p><b>GCSEpod Atomic Structure, Forces and 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></p> <p>B5 Homeostasis and response</p> <ul style="list-style-type: none"> <li>Homeostasis</li> <li>Nervous System</li> <li>Hormonal coordination</li> <li>Plant Hormones</li> </ul> <p>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 B5 and B6 Knowledge Organisers</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>Write 4 bullet points stating Darwin's Theory of Evolution</li> <li>Produce a revision poster or mind map showing how plant hormones effect plant growth and how the distribution of hormones varies.</li> </ul>	<ul style="list-style-type: none"> <li>Revision Guide B5 &amp; B6</li> <li>Homeostasis <a href="https://members.gcsepod.com/shared/podcasts/title/10785/66100">https://members.gcsepod.com/shared/podcasts/title/10785/66100</a></li> <li>Nervous System <a href="https://members.gcsepod.com/shared/podcasts/title/10786/66101">https://members.gcsepod.com/shared/podcasts/title/10786/66101</a></li> <li>Hormonal Coordination <a href="https://members.gcsepod.com/shared/podcasts/title/10787/66110">https://members.gcsepod.com/shared/podcasts/title/10787/66110</a></li> <li>Plant hormones <a href="https://members.gcsepod.com/shared/podcasts/title/10788/66124">https://members.gcsepod.com/shared/podcasts/title/10788/66124</a></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>	<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>Nervous System</li> <li>Menstrual Cycle</li> <li>Genetics Quiz</li> <li>Old &amp; New Species</li> <li>Genetics &amp; Inherited Diseases</li> </ul> <p><b>GCSEPod Assessment on Homeostasis &amp; Response and 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>

Please bring your "Required Practical's on a Page" in September so your teachers can yellow sheet mark them

 Teams Tutorial with Ms G Davies Monday at 5.30 for selected students.

## Stepping Up to Year 11 Plan – Separate Science

			Biology Unit 5 & 6 videos	
<b>Week 5</b>	<p><b>Preparation for Year 11 Chemistry</b></p> <p>C8 Chemical Analysis</p> <ul style="list-style-type: none"> <li>Purity &amp; Formulations</li> <li>Chromatography</li> <li>Test for Gases</li> </ul> <p>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>Finite &amp; renewable resources</li> <li>Recycling</li> <li>Life Cycle Assessments</li> <li>Potable water &amp; water treatment</li> </ul>	<ul style="list-style-type: none"> <li>Study &amp; Learn the Knowledge Organisers for units C9 and C10</li> <li>Design a practical on a page for chromatography explaining Rf values</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>Purity, Formulations &amp; Chromatography <a href="https://members.gcsepod.com/shared/podcasts/title/10872/66797">https://members.gcsepod.com/shared/podcasts/title/10872/66797</a></li> <li>Identification of common gases <a href="https://members.gcsepod.com/shared/podcasts/title/10873/66669">https://members.gcsepod.com/shared/podcasts/title/10873/66669</a></li> <li>Identification of ions by chemical &amp; spectroscopic means <a href="https://members.gcsepod.com/shared/podcasts/title/10874/66843">https://members.gcsepod.com/shared/podcasts/title/10874/66843</a></li> <li>Evolution of the atmosphere <a href="https://members.gcsepod.com/shared/podcasts/title/10875/66751">https://members.gcsepod.com/shared/podcasts/title/10875/66751</a></li> <li>Greenhouse effect <a href="https://members.gcsepod.com/shared/podcasts/title/10876/66753">https://members.gcsepod.com/shared/podcasts/title/10876/66753</a></li> <li>Air pollution <a href="https://members.gcsepod.com/shared/podcasts/title/10877/66740">https://members.gcsepod.com/shared/podcasts/title/10877/66740</a></li> <li>Earths resources &amp; potable water <a href="https://members.gcsepod.com/shared/podcasts/title/10878/66825">https://members.gcsepod.com/shared/podcasts/title/10878/66825</a></li> <li>Life Cycle Assessment &amp; Recycling <a href="https://members.gcsepod.com/shared/podcasts/title/10879/66859">https://members.gcsepod.com/shared/podcasts/title/10879/66859</a></li> <li>Using materials <a href="https://members.gcsepod.com/shared/podcasts/title/10880/66725">https://members.gcsepod.com/shared/podcasts/title/10880/66725</a></li> <li>Haber Process and uses of fertilisers <a href="https://members.gcsepod.com/shared/podcasts/title/10881/66819">https://members.gcsepod.com/shared/podcasts/title/10881/66819</a></li> <li>Firefly Required Practical's</li> </ul> <p><b>MyGCSEScience</b></p> <ul style="list-style-type: none"> <li>Chemistry Units 8, 9 &amp; 10 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>Using resources</li> </ul> <p><b>GCSEPod</b> Assessment on Atmosphere &amp; Using Resources</p> <p><b>MyGCSEScience</b> Answer &amp; mark 2/3 questions</p>
<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> <p>P8 Space</p>	<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> <li>Produce a revision poster on the life cycle of stars</li> <li>Write an explanation of red shift in 4 bullet points</li> </ul>	<p>Revision Guide P7 Magnetism and Electromagnets</p> <ul style="list-style-type: none"> <li>Permanent &amp; Induced Magnets &amp; Magnetic fields <a href="https://members.gcsepod.com/shared/podcasts/title/10992/67335">https://members.gcsepod.com/shared/podcasts/title/10992/67335</a></li> <li>Motor effect <a href="https://members.gcsepod.com/shared/podcasts/title/10993/67324">https://members.gcsepod.com/shared/podcasts/title/10993/67324</a></li> <li>Solar system <a href="https://members.gcsepod.com/shared/podcasts/title/10495/64345">https://members.gcsepod.com/shared/podcasts/title/10495/64345</a></li> <li>Red Shift</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>Magnets &amp; electromagnets</li> </ul>

Please bring your "Required Practical's on a Page" in September so your teachers can yellow sheet mark them

 Teams Tutorial with Ms G Davies Monday at 5.30 for selected students.

## Stepping Up to Year 11 Plan – Separate Science

	<ul style="list-style-type: none"> <li>Solar system, orbital motions &amp; satellites</li> <li>Red shift</li> </ul>		<p><a href="https://members.gcsepod.com/shared/podcasts/title/10496/64348">https://members.gcsepod.com/shared/podcasts/title/10496/64348</a></p> <p><b>MyGCSEScience</b></p> <ul style="list-style-type: none"> <li>Unit P7 &amp; P8 videos</li> </ul>	<p><b>GCSEPod</b> Assessment on Magnetism and Electromagnets &amp; Space</p> <p><b>MyGCSEScience</b></p> <ul style="list-style-type: none"> <li>Answer &amp; mark 2/3 questions</li> </ul>
--	---	--	--	--

Please bring your “Required Practical’s on a Page” in September so your teachers can yellow sheet mark them

 Teams Tutorial with Ms G Davies Monday at 5.30 for selected students.