



## Curriculum Map for Combined Science Biology Year 11

YEAR 11	Autumn 1	Autumn 2
<b>Topics</b>	<b>Hormones &amp; Response</b>	<b>Genetics &amp; Evolution</b>
<b>Substantive Knowledge – The Knowledge and Content Taught By The Teacher</b>	<ul style="list-style-type: none"><li>• Hormones</li><li>• Negative Feedback and Fertility</li><li>• Diabetes</li></ul>	<ul style="list-style-type: none"><li>• Genetics</li><li>• Disorders</li><li>• Evolution &amp; Theories</li></ul>
<b>Disciplinary Knowledge – The Knowledge Scientists Need So They Can Collect, Understand and Evaluate Scientific Evidence</b>	<ul style="list-style-type: none"><li>• History of contraception and development of IVF treatments.</li></ul>	<ul style="list-style-type: none"><li>• History of evolution and history of genetics discovery.</li></ul>
<b>Skills</b>	<ul style="list-style-type: none"><li>• Evaluating forms of contraception.</li><li>• Analysing graphs and patterns of hormone levels.</li></ul>	<ul style="list-style-type: none"><li>• Genetic cross diagrams.</li><li>• Evaluating theories.</li></ul>
<b>Links To Prior Learning</b>	<ul style="list-style-type: none"><li>• Reproduction in genes in Year 7.</li></ul>	<ul style="list-style-type: none"><li>• Gene topic in Years 7 and 8.</li></ul>
<b>Literacy/ Numeracy</b>	<ul style="list-style-type: none"><li>• Analysing hormone graphs in Menstrual Cycle.</li><li>• Evaluating forms of contraception.</li></ul>	<ul style="list-style-type: none"><li>• Numeracy - develop the work and knowledge of ratios, percentage change and then converting this into a fraction if required.</li><li>• Using and applying correct terminology to predict appearance of an organism. Students will also be tested on their spelling.</li></ul>
<b>Cross Curricular</b>	<ul style="list-style-type: none"><li>• PSICHE - Relationship, Sex and Contraception</li></ul>	<ul style="list-style-type: none"><li>• Philosophy and Ethics - creationism and theories of life started according to different sources i.e. Science versus Religion</li></ul>
<b>Assessment</b>	<ul style="list-style-type: none"><li>• Homeostasis and Response Assessment</li></ul>	<ul style="list-style-type: none"><li>• Inheritance, Variation and Evolution Assessment</li></ul>

YEAR 11	Spring 1 & 2 Summer 1
<b>Topics</b>	<b>Ecology</b> <b>Whole Syllabus Review &amp; Revision</b>
<b>Substantive Knowledge – The Knowledge and Content Taught By The Teacher</b>	<ul style="list-style-type: none"> <li>• In this large final topic students develop their understanding of key terms then apply them to various scenario to investigate how this ever-changing world is having an impact on various organisms.</li> <li>• Students also develop their practical skills and complete an investigation into the school’s field ecosystem.</li> <li>• They also unpick the theory of evolution and explain how animals have changed over time.</li> </ul>
<b>Disciplinary Knowledge – The Knowledge Scientists Need So They Can Collect, Understand and Evaluate Scientific Evidence</b>	<ul style="list-style-type: none"> <li>• History of how animals of adapted.</li> <li>• History of fossils uses to support theories.</li> </ul>
<b>Skills</b>	<ul style="list-style-type: none"> <li>• Sampling Required Practical</li> <li>• Analysing Graphs</li> <li>• Analysing Diagrams and Spotting Patterns</li> </ul>
<b>Links To Prior Learning</b>	<ul style="list-style-type: none"> <li>• Ecosystems in Year 7 - Food Chains and Relationships Introduced</li> </ul>
<b>Literacy/ Numeracy</b>	<ul style="list-style-type: none"> <li>• Analysing Distribution Graphs</li> <li>• Plotting Bar Charts</li> <li>• Writing extensive 4/6 marks on how organisms have adapted, with correct use of keywords.</li> </ul>
<b>Cross Curricular</b>	<ul style="list-style-type: none"> <li>• Distribution of organisms in Geography.</li> </ul>
<b>Assessment</b>	<ul style="list-style-type: none"> <li>• Ecology Assessment</li> </ul>