

Year 10	Year 11
<p><b>CB1 Key Concepts in Biology</b></p> <ul style="list-style-type: none"> <li>• Key concepts in biology sets the tone for biology in the combined science GCSE. It has a review of the foundations that were laid in KS3.</li> <li>• Underpins what they learn further on with links into <b>all</b> future units.</li> <li>• This unit introduces basic practical skills, building upon microscopy learned in B1, and introducing enzyme and osmosis practicals.</li> <li>• This topic is examined in paper 1 and paper 2.</li> </ul>	<p><b>CB9 Ecosystems and Material Cycles</b></p> <ul style="list-style-type: none"> <li>• Start with chapter 9 as core practical needs to be done whilst the weather is good and plants are still identifiable to allow data to be collected.</li> <li>• Chapter contains nutrient cycles. Need time to assimilate all the information.</li> <li>• Start with Ecosystem lesson then lead straight into nutrient cycles rather than leaving nutrient cycles till the end. Linking food chains and food webs in ecosystems to nutrient cycles as there are clear links of movement of nutrient through different organisms and stores.</li> <li>• This topic is examined in paper 2.</li> </ul>
<p><b>CB2 Cells and Control</b></p> <ul style="list-style-type: none"> <li>• Builds on CB1, with strong link to cell structure and specialised cells.</li> <li>• CB3a Meiosis is being taught with CB2 to link with CB2a Mitosis to make comparison clearer for students between the two types of cell division.</li> <li>• Mitosis and Meiosis core principles in cell biology.</li> <li>• Change lesson order to start with stem cells as they are unspecialised cells, then move into nervous system as there are examples of specialised cells that link into the process of differentiation.</li> <li>• Then move to growth in animals and plants then finish off with Mitosis and Meiosis as it explains how animals grow.</li> <li>• This topic is examined in paper 1.</li> </ul>	<p><b>CB8 Exchange and Transport in Animals</b></p> <ul style="list-style-type: none"> <li>• Builds on CB5 where they learnt about cardiovascular disease. Now learning about the heart and circulatory system.</li> <li>• Doing CB8 before CB7 because in CB8 they learn about the circulatory system and in CB7 they learn about hormones. Hormones are transported in the circulatory system so students will have a greater understanding of how hormones can be produced in one area and affect a part of the body somewhere else.</li> <li>• This topic is examined in paper 2.</li> </ul>
<p><b>CB3 Genetics</b></p> <ul style="list-style-type: none"> <li>• Links to CB1 and CB2 with DNA found in the nucleus and DNA controlling the cells activities such as Mitosis and Meiosis.</li> <li>• Cell differentiation caused by certain genes being active linking to CB2.</li> <li>• Understanding the structure of chromosomes which they learn about in CB2 in relation to the types of cell division.</li> <li>• Add Mendel to CB3c Alleles, as this gives a better understanding of how inheritance and alleles were discovered.</li> <li>• This topic is examined in paper 1.</li> </ul>	<p><b>CB7 Animal Coordination, Control and Homeostasis</b></p> <ul style="list-style-type: none"> <li>• Links to CB8 with circulatory system and CB5 BMI and obesity.</li> <li>• Links to CB1c about egg cells. Link to menstrual cycle in CB7.</li> <li>• This topic is examined in paper 2.</li> </ul>

<p><b>CB4 Natural Selection and Genetic Modification</b></p> <ul style="list-style-type: none"> <li>• Clear and strong links to CB3. Students need to have an understanding of genes, alleles and gene mutations to understand evolution of natural selection.</li> <li>• Switch Lesson 1 CB4a Evidence for human evolution with Lesson 2 CB4b Darwin's theory. Need to understand the process of natural selection before looking at the evidence for it.</li> <li>• Links to CB1 with cell structure, bacteria and use of enzymes.</li> <li>• This topic is examined in paper 1.</li> </ul>	<p><b>CB6 Plant Structures and their Functions</b></p> <ul style="list-style-type: none"> <li>• Needs to be done near the end of the year when there is enough sunlight and warmth to grow Algae for the core practical</li> <li>• Links to nutrient cycles CB9 and CB1 recap with plant cells.</li> <li>• This topic is examined in paper 2.</li> </ul>
<p><b>CB5 Health, Disease and the Development of Medicines</b></p> <ul style="list-style-type: none"> <li>• Links back to CB1d Bacteria.</li> <li>• Links to CB7 and CB8. Preparing for year 11 topics.</li> <li>• More complex topic. Students have had most of the year to have a greater understanding of biology.</li> <li>• This topic is examined in paper 1.</li> </ul>	