



The curriculum for this stage of students' education has been designed to build upon the content from GCSE and to develop students understanding of Biology to prepare them for further study at University. To engender a lifelong love of Biology and to understand its applications in their every-day life.

HALF TERM 1	HALF TERM 2	HALF TERM 3
<p><b>STUDENTS MUST KNOW:</b> <i>Topic 1</i> - Biological molecules - carbohydrates, lipids, proteins and enzymes <i>Topic 2</i> - Biological molecules - nucleic acids, DNA and water</p> <p><b>HOW THIS WILL BE ASSESSED:</b> <i>Recommended Practical Activities:</i> <i>RPA 1 – Testing the effect of named variables upon the rate of an enzyme-controlled reaction.</i></p> <p>Progress test half way through each module End of module tests</p>	<p><b>STUDENTS MUST KNOW:</b> <i>Topic 3</i> - Cells - cell structure <i>Topic 4</i> - Cells - transport across cell membranes</p> <p><b>HOW THIS WILL BE ASSESSED:</b> <i>RPA 2 – Preparing stained squashes from plant root tips.</i> <i>RPA 3 – Production of dilution series to produce a calibration curve to identify water potential of plant tissue.</i></p> <p>Progress test half way through each module End of module tests</p>	<p><b>STUDENTS MUST KNOW:</b> <i>Topic 4</i> - Cells - transport across cell membranes <i>Topic 5</i> - Cells - cell recognition and the immune system</p> <p><b>HOW THIS WILL BE ASSESSED:</b> <i>RPA 4 – Investigate the effects of a named variable upon the permeability of cell surface membranes</i> <i>RPA 5 – Dissection of lung, heart or plant stem</i></p> <p><i>Recommended Practical Activities:</i> <i>RPA 4 – Investigate the effects of a named variable upon the permeability of cell surface membranes</i></p> <p>Progress test half way through each module End of module tests</p>
<p><b>HALF TERM 4</b></p> <p><b>STUDENTS MUST KNOW:</b> <i>Topic 6</i> - Organisms &amp; exchanging substances with their environment – exchange <i>Topic 7a</i> - Organisms &amp; exchanging substances with their environment - mass transport</p> <p><b>HOW THIS WILL BE ASSESSED:</b> <i>RPA 5 – Dissection of lung, heart or plant stem</i></p> <p>Progress test half way through each module End of module tests</p>	<p><b>HALF TERM 5</b></p> <p><b>STUDENTS MUST KNOW:</b> <i>Topic 7b</i> - Organisms &amp; exchanging substances with their environment - mammalian circulatory system <i>Topic 8</i> - Genetic information, variation &amp; relationships between organisms - DNA, genes &amp; protein synthesis</p> <p><b>HOW THIS WILL BE ASSESSED:</b> <i>RPA 6 – Use of aseptic techniques to investigate the effect of antimicrobial substances upon microbial growth</i></p> <p>Progress test half way through each module End of module tests</p>	<p><b>HALF TERM 6</b></p> <p><b>STUDENTS MUST KNOW:</b> <i>Topic 9</i> - Genetic information, variation &amp; relationships between organisms - Genetic diversity <i>Topic 10</i> - Genetic information, variation &amp; relationships between organisms – Biodiversity</p> <p><b>HOW THIS WILL BE ASSESSED:</b> Progress test half way through each module End of module tests</p>

Embedding this knowledge can be supported at home by reading around the subject, making use of the supplied text book. Reading online scientific articles from the New Scientist and Scientific American websites. Watching biological documentaries to develop an understanding of contemporary biological issues.