

Subject: BIOLOGY

Level: ADVANCED HIGHER

Course Contents and Components	Tips for Success	Study Approaches
<p>This course consists of 2.5 course units and a major research project.</p> <p>Unit 1 Cells & Proteins – Laboratory Techniques, Proteins, Membrane proteins, Detecting and amplifying environmental stimulus, Communication within multicellular organisms, Protein control of cell division.</p> <p>Unit 2 Organisms and Evolution – Field techniques, Evolution, Variation and sexual reproduction, Sex and behaviour, Parasitism.</p> <p>Unit 3 Investigative Biology – Scientific principles and process, Experimentation, Critical evaluation of biological research.</p> <p>The research project involves students planning and carrying out their own piece of research. They then have to write a report detailing their research, analysing the results and evaluating the experimental procedures. <u>There is a submission date for this project which is marked externally and is worth 30 marks</u></p> <p>Exam Length</p> <p>The exam is 2.5 hours long It is made up of two sections – Section 1 – Multiple Choice (25 marks) Section 2 – Data processing question, short and extended answer questions (65 marks)</p>	<p>Review class notes on a regular basis Use Scholar booklets and website.</p> <p>Complete all homework.</p> <p>Have a high level of attendance.</p> <p>Stick to dates regarding research project write up. DO NOT leave the write up to the last minute. Start writing the introduction and method when you have these finalised in November.</p> <p>Turn off you phone in class and do not get distracted by it when revising. Keep any work outside of school to a minimum (if at all) you do not have time to be doing multiple shifts at work.</p> <p>Key Dates</p> <p>Unit 3 test- October Unit 1 Test – December Prelims start 26th January Unit 2 test: March Start project planning and work- after October holidays Complete Pilot study- by December Hand in draft of project: February Complete project: March</p>	<p>Make flash cards for vocabulary</p> <p>Mind map key areas</p> <p>Practice past paper questions, particularly data processing questions.</p> <p>Keep reviewing work; a lot of the key areas are connected so understanding of one area is important to your understanding of the next.</p> <p>Bright Red Success guide is a good summary of course content.</p> <p>Support from the Department</p> <p>Supported Study is available in the Department Tuesday and Thursday – Miss Mills Tuesday, Wednesday and Thursday – Mrs Sewell</p>

Subject: BIOLOGY

Level: NATIONAL 5

Course Contents and Components	Tips for Success	Study Approaches			
<p>There are 3 unit of work:</p> <p>Cell biology: cell structure; transport across cell membranes; DNA and the production of proteins; proteins; genetic engineering; respiration.</p> <p>Multicellular organisms: producing new cells; control and communication; reproduction; variation and inheritance; transport systems — plants; transport systems — animals; absorption of materials.</p> <p>Life on Earth: ecosystems; distribution of organisms; photosynthesis; energy in ecosystems; food production; evolution of species.</p> <p>In addition to knowledge and understanding aspects above pupils will develop other skills such as: scientific inquiry and investigation, use of technology, equipment and materials, safely, in practical scientific activities, planning problem-solving in a biology context, the knowledge and skills for more advanced learning in biology</p> <p>Pupils are also required to complete an assignment about an aspect of National 5 biology. This offers challenge by requiring candidates to apply skills, knowledge and understanding in a context that is one or more of the following: unfamiliar, familiar but investigated in greater depth, integrating a number of familiar context. This is marked externally and is worth 20% of the overall mark.</p> <table border="1" data-bbox="192 1254 779 1294"><tr><td>Exam Length</td></tr></table> <p>Question paper – worth 100 marks, 2.5 hours long</p>	Exam Length	<p>Review class work on a regular basis, every week preferably.</p> <p>Complete homework, ask for help if you are struggling with it.</p> <p>Have a high level of attendance at classes.</p> <p>Practice problem solving skills.</p> <table border="1" data-bbox="1093 967 1588 1007"><tr><td>Key Dates</td></tr></table> <p>Early November – Life on Earth Test January 21st Prelims begin February assignment completed March 2019 – Unit assessment for Multicellular unit.</p>	Key Dates	<p>Make up flash cards for vocabulary.</p> <p>Make up mind maps for key areas of work.</p> <p>Use BBC bitesize or Oronsay website to help revision, watch videos that are on these sites.</p> <p>Complete past paper questions.</p> <table border="1" data-bbox="1621 932 2040 971"><tr><td>Support from the Department</td></tr></table> <p>Teachers are always available to help with specific issues.</p> <p>The department runs supported study classes after school on a Tuesday, Wednesday and Thursday.</p>	Support from the Department
Exam Length					
Key Dates					
Support from the Department					

Subject: BIOLOGY

Level: HIGHER

Course Contents and Components	Tips for Success	Study Approaches
<p>There are 3 Units of work in Higher Biology</p> <p>Unit 1 – DNA and the Genome - DNA and how the structure of the genome leads to the basis of evolution and biodiversity. Genomics one of the major scientific advances in recent times.</p> <p>Unit 2 – Metabolism and Survival - metabolic pathways and their control along with the conditions in which organisms survive and their means of coping with these.</p> <p>Unit 3 – Sustainability and Interdependence – interdependence and complex interactions between organisms is explored and sustainable food production.</p> <p>In addition pupils will learn a variety of experimental and problem solving skills.</p> <p>Pupils are also required to complete an assignment about an aspect of Higher biology. This offers challenge by requiring candidates to apply the skills, knowledge and understanding that they have learned.</p> <p>This is marked externally and is worth 20% of the overall mark.</p> <div data-bbox="192 1217 779 1257" style="border: 1px solid black; padding: 2px;">Exam Length</div> <p>Paper 1 (Multiple Choice) – 25 marks, 40 minutes Paper 2 (short answer and extended response) – 95 marks, 2 hours 20 min</p>	<p>Review class work on a regular basis, every week preferably.</p> <p>Complete homework, ask for help if you are struggling with it.</p> <p>Read through the Scholar booklets provided and complete questions.</p> <p>Log on to Scholar and do some of the online exercises</p> <p>Have a high level of attendance at classes.</p> <p>Work on problem solving skills</p> <div data-bbox="922 1038 1382 1078" style="border: 1px solid black; padding: 2px;">Key Dates</div> <p>Week beginning: 22nd October – Unit 1 test. 14th January – Unit 2 test 21st January – Prelims begin</p> <p>February – Assignment completed March – Unit 3 test</p>	<p>Make up flash cards for vocabulary.</p> <p>Make up mind maps for key areas of work.</p> <p>Use BBC bitesize to help revision, watch videos that are on this site.</p> <p>Complete past paper questions.</p> <div data-bbox="1413 1038 2007 1078" style="border: 1px solid black; padding: 2px;">Support from the Department</div> <p>Teachers are always available to help with specific issues.</p> <p>The department run supported study classes after school on a Tuesday, Wednesday and Thursday.</p>

Subject: **HUMAN BIOLOGY**

Level: **HIGHER**

Course Contents and Components	Tips for Success	Study Approaches			
<p>The Human Biology Course consists of 3 units: Human Cells Physiology and Health Neurobiology and Communication</p> <p>The course provides a broad-based, integrated study of a range of biological topics which develop the concepts of human biology. The content is set in contexts that are of particular significance and relevance to the human species.</p> <p>In addition candidates are expected to complete an assignment which is worth 20% of their final grade.</p> <table border="1" data-bbox="192 1043 779 1082"><tr><td>Exam Length</td></tr></table> <p>There are 2 exams in the new Higher</p> <p>Exam 1: 40 minutes- multiple choice- 25 marks</p> <p>Exam 2: 2 hours 20 minutes- Sentence answers and essays- 95 marks</p>	Exam Length	<p>This is a content-based course- any lessons missed must be caught up on to avoid significant gaps in knowledge.</p> <p>Complete homework on time.</p> <p>Use the feedback given in homework to target areas of weakness.</p> <p>Make use of Scholar to revise over notes and test knowledge.</p> <p>Use the SQA understanding standards website to look at example exam papers and assignments to have a better understanding of successful answers.</p> <table border="1" data-bbox="808 1086 1382 1125"><tr><td>Key Dates</td></tr></table> <p>September- Unit 1 test December- Unit 2 test January- Assignment completion January- Prelim March- Unit 3 test</p>	Key Dates	<p>Make and use flashcards to get a grasp of basic key words and concepts.</p> <p>Practice past-paper questions (available for free online)</p> <p>Use Scholar tests to try out questions before unit tests.</p> <p>Attend supported study for assistance.</p> <p>Practice essay questions on a regular basis.</p> <table border="1" data-bbox="1413 922 2002 960"><tr><td>Support from the Department</td></tr></table> <p>Supported study on a Tuesday and Thursday after school.</p> <p>Any specific issues teachers are always available to help.</p>	Support from the Department
Exam Length					
Key Dates					
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