

# EASTBURY SUBJECT CURRICULUM

<b>Subject</b>	<b>A2 Biology</b>
<b>Overview</b>	<p>The aims of the GCE in Biology is to enable students to develop their interest in, and enthusiasm for biology including developing an interest in further study and careers in the subject.</p> <p>Students are able to appreciate how society makes decisions about biology-related issues and how biology contributes to the success of the economy and society. Throughout the year they will be able to develop and demonstrate a deeper appreciation of the skills, knowledge and understanding of 'How Science Works'.</p> <p>The skills student will need to develop and have to succeed in biology are to be able to:</p> <ul style="list-style-type: none"> <li>• recognise, recall and show understanding of scientific knowledge</li> <li>• select, organise and communicate relevant information in a variety of forms</li> <li>• analyse and evaluate scientific knowledge and processes</li> <li>• apply scientific knowledge and processes to unfamiliar situations</li> <li>• assess the validity, reliability and credibility of scientific information</li> </ul>
<b>Term by term</b>	
<b>Autumn</b>	<p>Unit 4 - The Natural Environment and Species Survival</p> <p>Students will learn about:</p> <ul style="list-style-type: none"> <li>• photosynthesis; energy transfer within ecosystems</li> <li>• evidence for global warming</li> <li>• evolution through natural selection and speciation</li> <li>• nutrient recycling</li> <li>• DNA profiling and PCR</li> <li>• structure of bacteria and viruses</li> <li>• infectious diseases (eg AIDS and TB) and immunology.</li> </ul> <p>Mock Exam is done in January to see the progress made.</p>
<b>Spring</b>	<p>Unit 5 - Energy, Exercise and Coordination</p> <p>Student will learn about:</p> <ul style="list-style-type: none"> <li>• ATP, glycolysis, anaerobic/aerobic respiration</li> <li>• control and functioning of heart; ventilation and cardiac output</li> <li>• homeostasis</li> <li>• the nervous system</li> <li>• impact of exercise on body, and improving performance</li> <li>• hormonal coordination</li> <li>• brain structure and development</li> <li>• imbalances in brain chemicals</li> <li>• Human Genome Project.</li> </ul> <p>Unit 6 - Practical Biology and Investigative Skills</p> <p>Students will complete a written report of an experimental investigation, which they have devised and carried out. This is done outside of lesson time and is</p>

	worth 10% of the entire GCE. .
<b>Summer</b>	Continue unit 5 - Energy, Exercise and Coordination A third of the marks is related to unit 5 are from specified pre-release reading from the exam board. Time will be spent on analysing the article and highlighting and revising the topics based on the article  Students will have about 4 weeks of revision time for unit 4 and 5.
<b>Homework</b>	Homework is given every week and students are expected to spend 4 hours on it. Homework will vary in task incorporating research, practical write up, pre-reading and exam style questions. We also set homework on <a href="http://www.doddlelearn.co.uk">www.doddlelearn.co.uk</a> , which is web base learning. Please check emails, <a href="http://www.showmyhomework.com">www.showmyhomework.com</a> .
<b>Additional information</b>	Student will have end of topic tests to monitor progress and due to the linear exams it is important that you revise for these exams. There is a mock in January for unit 1.
<b>Useful resources</b>	<b>Here are some excellent websites for research and information.</b> <a href="http://www.edexcel.com/quals/gce/gce08/biology/Pages/default.aspx">http://www.edexcel.com/quals/gce/gce08/biology/Pages/default.aspx</a> <a href="http://www.s-cool.co.uk/a-level/biology">http://www.s-cool.co.uk/a-level/biology</a>