



# St John's Curriculum Overview – Year 13



Introduction	
	<ul style="list-style-type: none"> <li>Biology at St Johns is linear and therefore studied at <b>A-Level only</b>. We cover the <b>AQA Biology specification (7401, 7402)</b></li> <li>Students work towards <b>three externally assessed written exams</b> in A-Level Biology. All papers will be <b>synoptic</b> and feature the following types of questions: multiple choice, calculations, structured, closed short answer, levelled response questions and practical skills.</li> <li>The <b>AQA Biology</b> specification has been written to inspire students, nurture a passion for Biology and lay groundwork for further study in courses like biological sciences and medicine.</li> <li><b>AQA Biology</b> is written in a 'context free' style so teachers are free to bring the subject alive in their own way working with the strengths and weaknesses of the students.</li> <li><b>Required practical's</b> will be assessed and tracked throughout the two years.</li> </ul>

Subject title	Biology
Setting arrangements	Mixed prior attainment within the two classes
Time allowance each fortnight	9 hours

## Topics, Content and Assessment covered during the course

Term	Teacher 1 topics and content	Teacher 1 Assessment details	Teacher 2 topics and content	Teacher 2 Assessment details
<b>Term 1</b>	<b>3.5 Energy transfer in and between organisms</b> 3.5.2 Respiration  <b>3.8 The Control of Gene Expression</b> 3.8.1 Alteration of the sequence of bases in DNA can alter the structure of proteins 3.8.2 Gene expression is controlled by a number of features 3.8.2.1 Most of a cell's DNA is not translated 3.8.2.2 Regulation of transcription and translation 3.8.2.3 Gene expression and cancer	End of topic test: <b>Respiration:</b> <b>3.5.2</b> <b>Gene Expression</b> <b>3.8.1-3.8.2</b>	3.5.1 Photosynthesis <b>3.5 Energy transfer in and between organisms</b> 3.5.3 Energy and ecosystems 3.5.4 Nutrient cycles	End of topic test: <b>Photosynthesis:</b> <b>3.5.1</b> End of topic test: <b>Energy and ecosystems:</b> <b>3.5.3</b>
<b>Term 2</b>	3.8.3 Using Genome Projects 3.8.4 Gene technologies allow the study and alteration of gene function allowing a better understanding of organism function and the design of new industrial and medical processes	End of topic test: <b>Gene technologies</b> <b>3.8.3-3.8.4</b>	3.5.4 Nutrient cycles <b>3.6 Organisms respond to changes in their internal and external environments</b> 3.6.1 Stimuli both internal and external are detected and lead to a response	End of topic test: <b>Nutrient cycles:</b> <b>3.5.4</b>

	<p>3.8.4.1 Recombinant DNA technology</p> <p>3.8.4.2 Differences in DNA between individuals of the same species can be exploited for identification and diagnosis of heritable conditions</p> <p>3.8.4.3 Genetic fingerprinting</p>		<p>3.6.1.1 Survival and response</p> <p>3.6.1.2 Receptors</p> <p>3.6.1.3 Control of heart rate</p>	
<b>Term 3</b>	<p><b>3.7 Genetics, populations, evolution and ecosystems</b></p> <p>3.7.2 Populations</p> <p>3.7.3 Evolution may lead to speciation</p>	<p>End of topic test: <b>Populations</b></p> <p><b>3.7.2</b></p> <p><b>Evolution may lead to speciation:</b></p> <p><b>3.7.3</b></p>	<p><b>3.6 Organisms respond to changes in their internal and external environments</b></p> <p>3.6.1 Stimuli both internal and external are detected and lead to a response</p> <p>3.6.1.1 Survival and response</p> <p>3.6.1.2 Receptors</p> <p>3.6.1.3 Control of heart rate</p>	<p>End of topic test: <b>Response to stimuli: 3.6.1.1 – 3.6.1.3</b></p>
<b>Term 4</b>	<p><b>3.6 Organisms respond to changes in their internal and external environments</b></p> <p>3.6.4 Homeostasis is the maintenance of a stable internal environment</p> <p>3.6.4.1 Principles of homeostasis</p> <p>3.6.4.2 Control of blood glucose</p> <p>3.6.4.3 Control of blood water potential</p> <p>General revision (Including assessment for Populations and ecosystems: 3.7.4)</p> <p>MOCKS</p>	<p>End of topic test: <b>Homeostasis:</b></p> <p><b>3.6.4.1 to</b></p> <p><b>3.6.4.3</b></p>	<p>3.6.2 Nervous coordination</p> <p>3.6.2.1 Nerve impulses</p> <p>3.6.2.2 Synaptic transmission</p> <p>3.6.3 Skeletal muscles</p> <p>General revision (Including assessment for 3..7.1: Inheritance)</p> <p>MOCKS</p>	<p>End of topic test: <b>Nervous coordination:</b></p> <p><b>3.6.2.1 and</b></p> <p><b>3.6.2.2</b></p> <p>End of topic test: <b>Muscles: 3.6.3</b></p>
<b>Term 5</b>	<p>Structured essay practice</p> <p>Past Paper question books</p> <p>Final specimen paper</p>		<p>Core practical review</p> <p>Maths skills</p> <p>Final Specimen paper</p>	
<b>Term 6</b>	STUDY LEAVE			

#### **Resources Recommended for Revision and where they are available:**

- AQA Biology 2<sup>nd</sup> edition Toole and Toole Oxford press (discounts available through the school library)
- Use good **revision websites** (and suitable videos) to give an alternative wording to some explanations.

#### **Extended Learning (homework):**

- Review your class notes after each lesson using the relevant textbook pages
- Complete exam questions in the **homework booklets** and mark them using the answers
- Do the **summary questions** in the textbook and check the answers
- Revise effectively for each end of topic test

#### **Additional support and help for the course**

- Use the **specification checklists** to ensure you know what you do and don't know in each topic (provided at the start of the year)
- After each review test, complete **feedback homework** on your weaker areas, to get into good study habits. This enables you to build up revision material throughout the year, not just before the final exams. Get a 'study buddy'
- Once you know what areas of each topic you do not understand, do more past paper exam questions and revise those areas in your private study sessions.
- If you still do not understand these areas, then ask your teachers for help!
- Attend the **year 13 revision sessions**
- **Redo review tests** once you have improved your understanding of the weaker areas.