



St John's Curriculum Overview – Year 13



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

<p>Introduction</p> <ul style="list-style-type: none"> • Biology at St Johns is linear and therefore studied at A-Level only. We cover the AQA Biology specification (7401, 7402) • Students work towards three externally assessed written exams in A-Level Biology. All papers will be synoptic and feature the following types of questions: multiple choice, calculations, structured, closed short answer, levelled response questions and practical skills. • The AQA Biology 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. • AQA Biology 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. • Required practical's will be assessed and tracked throughout the two years.
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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
Term 1	<p>3.5 Energy transfer in and between organisms 3.5.2 Respiration</p> <p>3.8 The Control of Gene Expression 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</p>	<p>End of topic test: Respiration: 3.5.2 Gene Expression 3.8.1-3.8.2</p>	<p>3.5.1 Photosynthesis 3.5 Energy transfer in and between organisms 3.5.3 Energy and ecosystems 3.5.4 Nutrient cycles</p>	<p>End of topic test: Photosynthesis: 3.5.1 End of topic test: Energy and ecosystems: 3.5.3</p>

Term 2	<p>3.8.3 Using Genome Projects</p> <p>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</p> <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>End of topic test:</p> <p>Gene technologies</p> <p>3.8.3-3.8.4</p>	<p>3.5.4 Nutrient cycles</p> <p>3.6 Organisms respond to changes in their internal and external environments</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:</p> <p>Nutrient cycles: 3.5.4</p>
Term 3	<p>3.7 Genetics, populations, evolution and ecosystems</p> <p>3.7.2 Populations</p> <p>3.7.3 Evolution may lead to speciation</p>	<p>End of topic test:</p> <p>Populations</p> <p>3.7.2</p> <p>Evolution may lead to speciation:</p> <p>3.7.3</p>	<p>3.6 Organisms respond to changes in their internal and external environments</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:</p> <p>Response to stimuli: 3.6.1.1 – 3.6.1.3</p>
Term 4	<p>3.6 Organisms respond to changes in their internal and external environments</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:</p> <p>Homeostasis:</p> <p>3.6.4.1 to</p> <p>3.6.4.3</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:</p> <p>Nervous coordination:</p> <p>3.6.2.1 and 3.6.2.2</p> <p>End of topic test:</p> <p>Muscles: 3.6.3</p>
Term 5	<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>	
Term 6	STUDY LEAVE			

Resources Recommended for Revision and where they are available:

- AQA Biology 2nd 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.

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.