Biology

Year 12

Dverview



Students will study the AS content of the AQA Biology specification and begin studying the A2 content in the summer term. Students will be taught by two teachers that cover half of the specification each. This simultaneous teaching enables depth and breadth of curriculum coverage. They will build on their GCSE knowledge of biological molecules, cell structure and function, hierarchical organisation of plants and animals, exchange systems in organisms, immunity, DNA and genetic variation, microbiology, environmental biology and field studies. They will also build on their practical skills by completing investigative work that compliments the learning of the theory whilst providing opportunity for students to experience the use of more complex apparatus and techniques. A minimum of 6 of these will be assessed over the year. All work, whether theoretical or practical, is designed to prepare students for the next stage of their life, whether that be further academic study or work, and to enable them to become informed citizens that can make positive contributions to society.

	 Units Studied: Biological molecules: Carbohydrates Proteins Nucleic acids & water Cell structure Cell transport Exchange Cell recognition 	Assessment	
Autumn Term		 Mini tests covering short recall and application of knowledge questions with immediate feedback. Synoptic tests covering multiple units and longer-term recall, teacher assessed, with feedback and self- reflection activities. Practical Assessments: CP1: Enzymes CP2: Microscopy CP3: Water potential in plant tissue CP4: Membrane permeability 	
	 Units studied: Mass transport in animals Mass transport in plants DNA, genes and protein synthesis Genetic diversity 	Assessment	
Spring Term		 Mid-year mock exam (January): one paper and essay paragraph Mini tests covering short recall and application of knowledge questions with immediate feedback. Synoptic tests covering multiple units and longer-term recall, teacher assessed, with feedback and self-reflection activities. Practical assessments: CP5: Dissection CP6: Aseptic technique 	
Summer Term	 Biodiversity Energy transfers (A2) Ecosystems and competition (A2) 	Assessment	
		 Mini tests covering short recall and application of knowledge questions with immediate feedback. Synoptic tests covering multiple units and longer-term recall, teacher assessed, with feedback and self-reflection End of year mock exam (June): two papers and synoptic essay question 	

Useful Resources for Supporting Your Child at Home:	Homework:
 Revision study plan provided by WHGS CGP revision guides Online resources subscribed to by WHGS or the department: UpLearn Seneca 	Each unit of work has a homework booklet with a selection of past exam questions. A mark scheme is also provided. Students are expected to work through this booklet independently answering, self-assessing and
 Carousel Other recommended online resources <u>https://missestruch.co.uk/</u> 	reflecting, throughout the period that the unit is being studied.
 https://www.savemyexams.com/a-level/#aqa https://www.physicsandmathstutor.com/biology- revision/a-level-aqa/ www.khanacademy.org 	Completion of this is checked by the class teacher at the end of the unit.
Reading beyond the spec https://www.nature.com/ https://www.nationalgeographic.co.uk/ https://www.newscientist.com/ https://www.ted.com/talks https://www.sciencemag.org/podcasts https://www.thenakedscientists.com/science-podcasts	