



THE ARNEWOOD SCHOOL

KEY STAGE 5 BIOLOGY



Implementation

There are transition tasks on Firefly which link directly to topics that are covered in year 12. The completed transition tasks are then referred to in class and direct links made with the specification.

Year 12

Half term	Curriculum focus	Landmark assessment
Autumn 1	Pupils start with the foundations of biology, the ultrastructure of cells and biological molecules. They carry out practical work testing for the presence of biological molecules and investigate the properties of plasma membranes.	End of topic tests using past paper questions and grade boundaries.
Autumn 2	The cellular biology continues by learning how cells divide and are organised into organisms. The Biochemistry continues with the study of the structure of nucleic acids and the production of proteins.	End of topic tests using past paper questions and grade boundaries.
Spring 1	Pupils will investigate the structure and function of enzymes alongside studying communicable disease and the immune system. Some time will be spent preparing and reviewing the exams.	Year 12 January examinations
Spring 2	Pupils will learn about the physiology of exchange surfaces and breathing leading them to studying animal transport systems. They will also be learning and classification and the theory of evolution.	End of topic tests using past paper questions and grade boundaries.
Summer 1	Pupils will study the transport system of plants and spend time consolidating their learning for anyone taking the AS examinations	End of topic tests using past paper questions and grade boundaries.
Summer 2	Pupils will study the biochemistry of photosynthesis and populations and sustainability. They will also carry out practical work associated with these topics.	Year 12 Summer examinations





Co-Curricular: Pupils will need to apply their GCSE maths skills in a variety of calculations. Links with chemistry in terms of bonding in biological molecules, links with A level PE in the animal transport section.

Year 13

Half term	Curriculum focus	Landmark assessment
Autumn 1	In mammalian physiology, pupils will study communication, homeostasis and excretion including the liver and kidneys. They will also be learning about cellular control.	End of topic tests using past paper questions and grade boundaries.
Autumn 2	Pupils' understanding of biochemistry continues by learning about cellular respiration. They will also be learning about the patterns of inheritance and predicting the outcomes of genetic crosses.	End of topic tests using past paper questions and grade boundaries.
Spring 1	Following preparation and review of the exams, pupils learn about the nervous system including the conduction of impulses and the structure of the brain. They will also be learning about how genomes can be manipulated in biotechnology.	Year 13 January examinations
Spring 2	The final new content is to learn about plant and animal responses. They will also start reviewing content ready for the examinations.	End of topic tests using past paper questions and grade boundaries.
Summer 1	Pupils will be revising content and completing past paper questions in preparation for their final examinations.	A level examinations
Summer 2	Course complete	

Co-Curricular: Links with Chemistry in terms of biochemical structures. Link to A level PE in the cellular respiration topic and with psychology in the study of the brain.

