PCHS Curriculum Information

Course Title: Biology	Exam Board: AQA	Specification Code: 7401

How will students be assessed?
Students will sit three two-hour external exams at the end of Year 13. During the course, along with other practical work, students will carry out 12 assessed practical's which will lead to the students being awarded their practical skills endorsement.

Biology Paper 1: (91 marks)
Students will complete short and long answer questions on the topic areas mainly from year 12. Questions will be knowledge based including a large proportion of knowledge application, as well as drawing on the practical work that students have completed throughout the course.

Biology Paper 2: (91 marks)
Students will complete short and long answer questions as well as a comprehension question on the topic areas from year 13. Questions will be knowledge based including a large proportion of knowledge application, as well as drawing on the practical work that students have completed throughout the course.

Biology Paper 3: (78 marks)
Students will complete structured questions including practical techniques, critical analysis and an essay.

KEY CONTENT	
Half Term 1 **Genetics, populations,evolution and ecosystems** Populations in ecosystems **Assessment on population** *Required practical 12* **Organisms respond to changes in their internal and external environment** Survival and response Receptors Control of heart rate Nerve impulses *Required practical 10*	**Energy transfers** Photosynthesis (catch up from the summer) Respiration (catch up from the summer) **Assessment on photosynthesis** **Assessment on respiration**
Half Term 2 **Organisms respond to changes in their internal and external environment** Synaptic transmission Skeletal muscles	**Genetics, populations,evolution and ecosystems** Inheritance Populations Evolution may lead to speciation

Assessment on Nervous Coordination	**Assessment on evolution and inheritance**
KEY CONTENT	
Half Term 3 **Homeostasis** Principles of homeostasis and negative feedback Control of blood glucose concentration Control of blood water potential *Required practical 11* **Assessment on Homeostasis**	**The control of gene expression** Alteration of the sequence of bases in DNA can alter the structure of proteins Gene expression is controlled by a number of features Most of a cells DNA is not translated Regulation of transcription and translation Gene expression and cancer Using genome projects
Half Term 4 **Energy transfers** Energy and ecosystems Nutrient cycles **Assessment on energy and ecosystems**	**Gene technologies** Recombinant DNA technology Identification and diagnosis of heritable conditions Genetic fingerprinting **Assessment on gene expressions and technologies**
Half Term 5 **Exam preparation**	