PCHS Curriculum Information

Course Title: **Human Biology**	**Exam Board:OCR**	**Specification Code:** **Extended Certificate H149**

How will students be assessed?

OCR Level 3 Alternative Academic Qualification Cambridge Advanced National in Human Biology (Extended Certificate)
For this qualification, students must complete six units:

• Two mandatory externally assessed units
• Two mandatory NEA units
• Two optional NEA units

F170 Fundamentals of human biology - Mandatory exam unit
F171 Health and disease - Mandatory exam unit
F172 Genetics - Mandatory coursework unit
F173 Biomedical techniques - Mandatory coursework unit

Staff will then choose two out of the following 4 coursework units
F174 Nutrition and metabolism
F175 Human reproduction
F176 The brain
F177 Drug development

F170: Fundamentals of human biology In this unit you will learn about the key topics that are important in human biology. **Topics include**: o Topic Area 1 Human cells and tissues o Topic Area 2 Human physiology, organs and systems o Topic Area 3 Key concepts in	**F171** : Health and disease In this unit you will learn about the intriguing and challenging nature of diseases and disorders. **Topics include:** o Topic Area 1 Causes and effects of diseases and disorders o Topic Area 2 Curative management and preventative therapies	**F172** Genetics In this unit you will build on knowledge of DNA, cell division and inheritance from Unit F170 Fundamentals of human biology. You will learn how to apply and use mathematical techniques to determine the probability of inheritance in human genetic disorders. You will also learn the principles of genetic testing, how it is used and

endocrinology, neurobiology and reproduction o Topic Area 4 Basics of microbiology	o Topic Area 3 The role of immunology o Topic Area 4 Techniques for diagnosis and monitoring o Topic Area 5 Reporting, research and confidentiality	the importance of genetic counsellors. Finally, you will learn how to investigate recent advances in gene therapy and genetic engineering, and the potential importance of these technologies in the future.

KEY CONTENT
Half Term 1 Topic Area 1 Human cells and tissues (DP) Topic Area 2 Human physiology, organs and systems (KE) Topic Area 3 Key concepts in endocrinology, neurobiology and reproduction (DP/SB 3.2, SB3.3, KE3.1) Topic Area 4 Basics of microbiology (SB)
Half Term 2 Topic Area 1 Human cells and tissues (DP) Topic Area 2 Human physiology, organs and systems (KE) Topic Area 3 Key concepts in endocrinology, neurobiology and reproduction (DP/SB 3.2, SB3.3, KE3.1) Topic Area 4 Basics of microbiology (SB) **Prepare for exam January 2026 9/1/26 - provisional date**
Half term 3 Topic Area 1: Fundamentals of genetics Topic Area 2: Mode of inheritance Topic Area 3: Genetic counselling and genetic testing Topic Area 4: Gene therapy and genetic engineering **Write up of coursework**
Half Term 4 Topic Area 1: Fundamentals of genetics Topic Area 2: Mode of inheritance Topic Area 3: Genetic counselling and genetic testing

Topic Area 4: Gene therapy and genetic engineering Write up of coursework
Half Term 5 Topic Area 1 Causes and effects of diseases and disorders（SB） Topic Area 2 Curative management and preventative therapies（SB/KE） Topic Area 3 The role of immunology（KE） Topic Area 4 Techniques for diagnosis and monitoring（DP） Topic Area 5 Reporting, research and confidentiality （DP）
Half term 6 Topic Area 1 Causes and effects of diseases and disorders （SB） Topic Area 2 Curative management and preventative therapies（SB/KE） Topic Area 3 The role of immunology（KE） Topic Area 4 Techniques for diagnosis and monitoring（DP） Topic Area 5 Reporting, research and confidentiality（DP）