BIOLOGY

Subject Overview

We aim to sustain and develop our pupils' enthusiasm in exploring the subject widely through investigations, fieldwork and secondary sources. Their learning will help them to formulate questions, discover answers and evaluate claims.

Pupils will be encouraged to link ideas from different areas of the course, other subjects and personal experiences and should learn to make thoughtful judgements about the value and responsible use of biology in society.

At A'Level many GCSE topics are studied in greater depth and new ones introduced. The development of investigative, observation and research skills is integral to the course. In Year 12**,** pupils study the cellular and biochemical make up of organisms in relation to medical developments such as stem cells and drug targeting. Respiratory and cardiovascular systems illustrate how the needs of the organism are supplied and how this is compromised by disease. A global perspective is introduced in the study of the impact of infectious disease, food supply and evolution leading to the astonishing biodiversity of the planet and the steps required to protect it.

In Year 13, coordination and control are explored from the molecular level of how genes work, through the hormonal and nervous coordination systems to the behaviour of whole organisms in their environments. Principles are strongly linked with applications such as genetics and gene technologies, the study of ecosystems with sustainability. The ability to link different areas of learning is key and personal reading is strongly encouraged.

Biology is a very popular subject of study, both at A'level and at university. The work done in A'level Biology gives a good grounding for a vast number of university courses. These include many studies in biological sciences, medicine, biochemistry, bioengineering, geology, and psychology.

A Biology student at Claremont is a mature individual who has a good interest in the subject. He/she will be able to work cohesively with other students and the teachers, but also independently. Claremont Biology students acquire many research and practical skills during the course which interlinks with many other subjects, such as Chemistry, Physics, English and Maths.

Our entry requirements to the course are:
Minimum of B in Biology or BB in Science Dual
Minimum of B in Mathematics
Minimum of B in English

Useful Subject Requirement: A in English Language

To progress onto A2 Biology, preference will be given to students with a minimum of grade D at AS Biology

Exam Board

As from September 2015 there will be a new structure to the assessment of post-16 Biology for all exam boards. The Biology department have examined the structure and resources available in all major exam boards and a decision has been made to continue with Edexcel

Key Changes in Teaching and Assessing of KS5 Biology from September 2015:

1. Assessment will be mainly by exam, with other types of assessment used only where they are needed to test essential skills.
2. AS and A-Level coursework has now been removed
3. AS and A levels will be assessed at the end of the course. AS assessments will typically take place after 1 year's study and A levels after 2. The courses will no longer be divided into modules and there will be no exams in January.
4. AS and A levels will be decoupled – this means that AS results will no longer count towards an A level, in the way they do now.
5. AS levels can be designed by exam boards to be taught alongside the first year of A levels.
6. The content for the new A levels has been reviewed and updated. Universities played a greater role in this for the new qualifications than they did previously

What the students say

"Through studying Biology at A-level I have gained further understanding of human anatomy and how living organisms interact with each other and the environment. Biology offers many career choices and the Biology department is very helpful at all times. I stayed on to study Biology at Claremont because the teachers are great here!"

What can you do with Biology?

Pharmacology, Physiology, Physiotherapy, Cell Biology, Veterinary Sciences, Microbiology, Life Sciences, Biotechnology, Medicine, Dentistry, Forensics, Marine Biology, Neuroscience, Environmental Science, Zoology