



Biology

Subject to Change

Level 3

A Level

Course Leader: Mr Matic-Booth

Entry requirements

- Grade 7 in GCSE Science (high grade 6 on the Biology paper will be considered on an individual basis)
- Grade 5 for Maths and English GCSE
- Good problem solving skills and a passion for the living world
- The ability to complete exams

Why choose this course?

This course will be fascinating for anyone interested in the living world, plants and animals. It is a science subject and as such, it will develop the ability to collect information, analyse, evaluate and understand how living things work. Science encourages reasoning, critical thinking and objectivity. These are skills which will be highly prized by any employer or university. It is a course that links well to the other Science A levels, such as Chemistry or Physics, but also some of the Social Science A levels, such as Psychology, Sociology, Health and Social Care or Sports Science.

Students taking this course find it challenging, but equally, the sense of satisfaction of learning how living organisms work is incredibly fulfilling and provokes students' sense of enquiry and curiosity.

During the Biology course, you will have the opportunity to go on field trips and visits to places like Plymouth Medical School and Paignton Zoo. Practical work is part of the course and will be assessed during your lessons.

Web Links

www.societyofbiology.org

www.bbsrc.ac.uk

What does the course involve?**A Level****Topics:**

- Biological Molecules
- Cells, Transport and Immunity
- Organisms Exchange Substances with their Environment
- Genetic Information, Variation and Relationships between Organisms
- Energy Transfer in and Between Organisms
- Organisms Respond to Changes in their Environment
- Genetics Populations Evolution and Ecosystems
- The Control of Gene Expression

Practical Endorsement

Students will be awarded a separate endorsement of practical skills, which will be assessed by teachers. This will not be graded. If students pass, it will be reported on their certificates. In order to develop the necessary skills, knowledge and understanding, students studying biology, chemistry and physics will be required to have carried out a minimum of 12 practical activities, which will contribute towards the Practical Endorsement. These skills, knowledge and understanding will also be assessed in written examinations. Some of the techniques you will use are listed below:

- use a colorimeter or potometer
- use serial dilutions
- use of light microscope at high power and low power, including use of a graticule
- scientific drawing from observation with annotations
- use chemical tests to identify biological molecules
- separate biological compounds using thin layer/paper chromatography or electrophoresis
- use organisms to measure: plant or animal responses and physiological functions
- use microbiological techniques,
- carry out dissections of an animal organ, or plant organ
- use sampling techniques in fieldwork
- use ICT such as computer modelling, or data logger to collect data, or use software to process data

Possible career pathway

Biology could take you into a number of exciting career paths. These include: biological testing, biotechnology, independent research, food industry jobs, nutrition, medicine, nursing, veterinarian, zoologist, zookeeper, animal care, veterinary nurse, scientist, marine biology, forensic science, environmental science amongst a huge range of others. In fact, having an A-level in Biology will put you in great stead for a huge range of careers.

Note: This is our current offer which is subject to change