

Why study Biology?

Biology is a fascinating and diverse subject which will develop your understanding of the processes which underpin all life on the planet. Rapid developments in genetics mean that there has never been a better time to study this subject. You will be well placed to take advantage of the many new career opportunities in the life sciences and biotechnology.

“The support you receive from the Biology teachers is unrivalled by any other A Level subject.” - Olivia Jones, Year 13 student

“Biology is not only an interesting subject, but the teachers offer a unique support system compared to any other subject, always supporting you through work and stress.” - Ella Davies, Year 13 student

“Biology’s holistic nature allows you to have specific interests but shows how everything is linked together.” - Matthew Brookhouse, Year 13 student

“What you learn in biology goes far beyond the classroom.” - Elizabeth Roberts, Year 13 student

What will this involve?

Year 12 Unit 1 - 20% of the qualification. Basic Biochemistry and Cell organisation. This includes modules on fundamental concepts that will form the basis of your understanding for the rest of the two year course. It includes the structure of cells, the biochemistry of the basic biological molecules, transport in and out of cells, enzyme theory, cell division and protein synthesis.

Year 12 Unit 2 - 20% of the qualification. Biodiversity and Physiology of body systems. This unit builds on the previous knowledge of Unit 1 and focus on larger scale biological concepts within humans and other organisms. As well as modules on classification and biodiversity, the unit also looks at the gas exchange, transport and digestive systems of organisms including mammals, fish and plants, including detailed investigation into the functioning of the human heart and lungs.

Year 13 Unit 3 - 25% of the qualification. Energy, Homeostasis and the Environment. This unit really focuses in on key biological processes such as respiration and photosynthesis, human anatomy in the form of the kidney and treatment of kidney disease, the nervous system and mechanism of action of drugs and toxins at synapses and the practical techniques needed for effective microbiology. The final part of the unit concentrates on Ecology and the impact of humans on the environment.

Year 13 Unit 4 - 25% of the qualification. Variation, inheritance and options - the final exam module focuses on reproduction in humans and plants as well as classical and contemporary genetics. There is also an optional module which is selected from one of 3 possibilities: immunology and Disease, Human Musculoskeletal Anatomy or Neurobiology and Behaviour.

Year 13 Unit 5 - 10% of the qualification. Students carry out an investigation and analyse and evaluate their findings - this unit is split into 2 components :

An experimental task

A practical analysis task.

Ways we support students

Google classroom

Dedicated biology facebook group

Yr 13 subject leaders

After school revision sessions

One to one tutorials

Maths for biologists support sessions

Practical lab book support

Subject specific mock interviews

Extensive reading list

Opportunity to conduct a Nuffield Research Placement over the summer of Year 12.

Where do I go from here?

Anyone wanting employment within the Biology-based industries or further education in university will benefit from this course. Biology is essential for the study of Medicine, Pharmacy, Forensic Science, Veterinary Science. It is also a useful addition for the study of Engineering, Food Technology, Physics, Textiles, Architecture and any other subjects.