

# **Biology**

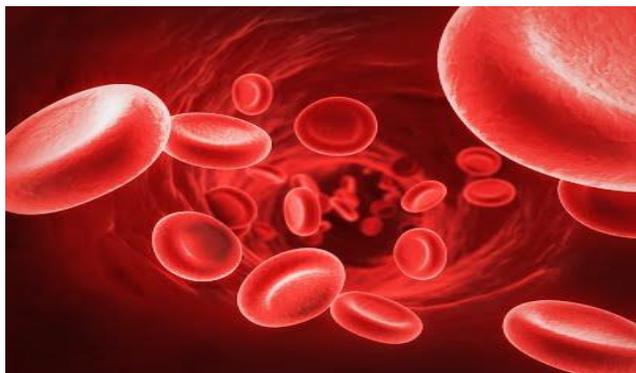
## **A Level**

**Head of Department:**

Mrs C Dunham

**Exam Board:** EdExcel

Biology A (Salters-Nuffield)



### **What is the course about?**

The unique contextual based structure of the course allows students to learn about the key concept and their relationship within real life examples. The core practical activities and the field trip form a thread linking theoretical knowledge and understanding to practical scenarios. The course aims to enable students to develop essential knowledge and understanding of different areas of the subject and how they relate to each other. The A Level field trip to Boxhill in Surrey is a highlight of the course.

### **What will I study in the first year?**

In the first year you will study the role of diet and other lifestyle factors with particular reference to the heart and circulation and to cardiovascular disease (CVD). Biological principles such as DNA structure and inheritance are covered through the context of the genetic disease cystic fibrosis which allows for discussion of the social and ethical issues surrounding the genetic screening for genetic conditions. The study of biodiversity looks at how diversity has come about through adaptation and natural selection leading to evolution.

### **What will I study in the second year?**

In the second year you will study how ecosystems work looking at whether climate change will lead to extinction of species or evolution by natural selection. Forensics and disease captivates the imagination in the context of crime scene investigations. A study of the brain and the physiological adaptations that enable animals and humans, particularly sports people, to undertake strenuous exercise completes the course.

### **How is the course assessed?**

Assessment is 100% exam based which is written in the second year.

### **What skills will I develop in this course?**

By the end of the course students will become confident practical biologists, handling apparatus competently and safely, gaining a deep appreciation of mathematical and problem solving skills, knowledge and understanding of scientific methods. Students will understand how society makes decisions about scientific issues and how the sciences contribute to the success of the economy and society.

### **What does this subject offer for higher education and future careers?**

This subject is considered a competitive one in terms of university entrance. It attracts a lot of applicants for university as it combines the academic and analytical skills which are so valued in many careers including Medicine, Ecology, Conservation, Forensics and Zoology.