



**KIRKHAM**  
GRAMMAR SCHOOL

# **BIOLOGY**

The development of new techniques in Genetic Engineering, Biotechnology, Microbiology and Medicine have led to exciting changes in the content of Advanced Level Biology. It is a subject that affects many aspects of our lives, such as the food we eat, our health and interactions with the environment. Biology combines well with many other subjects such as PE, Geography, Psychology, Maths, Chemistry and Physics. Careers in Dentistry, Medicine, Veterinary Science, Biochemistry and Microbiology will require A-Level Biology.

## **THE COURSE**

The A-level qualifications are linear. Linear means that students will sit all the exams at the end of their A-level course.

### **A-Level**

#### **Subject content**

Core content:

1. Biological molecules
2. Cells
3. Organisms exchange substances with their environment
4. Genetic information, variation and relationships between organisms
5. Energy transfers in and between organisms
6. Organisms respond to changes in their internal and external environments
7. Genetics, populations, evolution and ecosystems
8. The control of gene expression

#### **Assessment**

Three papers each of 2 hour duration. Content from topics 1-8 are examined along with relevant practical skills. There are 12 required practicals undertaken through the two years and a range of skills are assessed within those practicals leading to a certificate of competency.

### **Field Course**

Upper Sixth Form students attend a field course to develop Ecology practical skills and to study many of the Ecology topics. The three day field course, at a Field Studies Centre, normally costs about £220 and includes full board, accommodation, transport, fieldwork led by specialist Ecology tutors, use of laboratories and specialist equipment. Attendance on the course is a compulsory component of the course.