



BIOLOGY A-LEVEL

WHY SHOULD I STUDY A-LEVEL BIOLOGY?

Biology is the science behind life and all living things. Biology builds on concepts studied previously but delves much further into the depths of all living organisms, mechanisms and life processes. This is the most exciting time to be a biologist. Biologists are working to solve the biggest challenges currently facing humanity and our planet – fighting disease, protecting the environment and feeding our growing population. If you have a love for life, knowing how organisms work, head for figures and enjoy applying your knowledge to real life situations, Biology is for you.

WHAT WILL I LEARN ABOUT?

You will study 8 Topics over the two years; Topic 1: Biological molecules, Topic 2: Cells, Topic 3: Organisms exchange substances with their environment, Topic 4: Genetic information, variation and relationships between organisms, Topic 5: Energy transfers in and between organisms, Topic 6: Organisms response to changes in their internal and external environments, Topic 7: Genetics, populations, evolution and ecosystems, Topic 8: The control of gene expression.

Topics 1 – 4 are taught in the first year and topics 5 – 8 are taught in the second year. The specification is split into two; 7401 for the first year and 7402 for the second year. This is a practical subject thus enjoyment of laboratory work is a natural prerequisite. There are 12 practical activities that need to be completed over the two years and you will also do some other practical activities to help develop skills and knowledge. Mathematics is also important in Biology and the basics of statistical tests are taught throughout the two years. You will also develop your mathematical skills in other areas such as units, dilutions, and magnification.

Usually in the first year of the course, we complete a three-day residential field course, where multiple practical skills are covered. It is important to attend this as these skills are best taught in the field.

HOW WILL I BE ASSESSED?

You will have 3 Examinations at the end of the second year and you will be expected to complete all 12 practical activities to develop your skills, which will be assessed in class and in the examinations.

Paper 1: topics 1-4, 35% of A level, 2 hours and 91 marks (76 marks-short and long answers, 15 marks-extended response).

Paper 2: topics 5-8, 35% of A level, 2 hours and 91 marks (76 marks-short and long answers, 15 marks- comprehension question).

Paper 3: topics 1-8, 30% of A level, 2 hours and 78 marks (38 marks-structured questions, 15 marks-analysis of experimental data, 25 marks-1 essay of choice from 2 titles).

WHAT SKILLS WILL I DEVELOP?

Studying Biology will equip you with the tools in order to understand how society makes decisions about scientific issues and how science contributes to the success of the economy and society. At the same time, you will develop competence and confidence in a variety of practical, mathematical, problem-solving skills, amongst communication and analytical thinking, to name a few.

WHERE COULD THIS SUBJECT TAKE ME IN THE FUTURE?

Biology is a well-respected Science subject that is highly regarded by Universities. Biology provides foundations for thinking critically and analytically and as a result it can lead to further studies in a wide range of both Science and non-Science subjects. If you are planning on studying any subject to do with living organisms, Biology is likely to be a requirement or highly recommended. It combines well with a number of subjects such as Mathematics, Chemistry, Physical Education and Geography but there are other combinations that also work very well. Please speak to the teachers about what you would like to do later in life, and they can advise you.

Exam Board: AQA



King Edward's
WITLEY