

Faculty : Science
Subject : Key Stage 5 Biology

Faculty Introduction:

The course involves a diverse range of topic areas, essentially the study of living things, from minute bacteria to the enormous Blue Whale and from tiny algae to a gigantic Aspen tree, and the changes that take place between them and their environment. You will complete practical work as an integral part of the course and hopefully this will make the topic much more interesting and enjoyable.



Topics/Modules to be covered:

Unit 1: Biology and Disease

Digestive and gas exchange systems may be affected by communicable diseases.

A knowledge of basic biology allows us to understand the symptoms of disease and interpret data relating to risk factors.

Unit 2: The Variety of Organisms

The influence of genetic and environmental factors on intraspecific variation.

The variety of life is reflected in similarities and differences in the biochemical basis and cellular organisation.

Unit 3: Investigative and practical skills

Practical work in the context of units 1 and 2.

Unit 4 Population and the Environment

Living organisms form structured communities within dynamic but essentially stable ecosystems.

Humans are part of the ecological balance and their activities affect it both directly and indirectly.

Unit 5 Control in cells and in organisms

Response to the internal and external environment.

Manipulation of DNA and the use of DNA technology in the diagnosis and treatment of human diseases.

Unit 6 Investigative and practical skills in A2 Biology

demonstrate and describe ethical, safe and skilful practical techniques, selecting appropriate qualitative and quantitative methods.

make, record and communicate reliable and valid observations and measurements with appropriate precision and accuracy.

analyse, interpret, explain and evaluate the methodology, results and impact of their own and others' experimental and investigatory activities.

Assessment:

Units 1,2,3,4 and 5 are assessed through external written examinations. Unit 6 is assessed internally.

Homework expectations/key deadlines:

Homework is set on a weekly basis