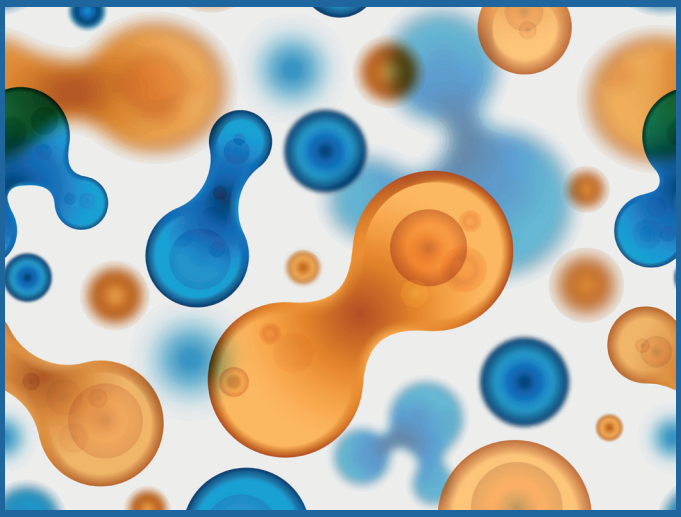
Maelor Sixth



Biology
WJEC A Level

Subject Leader: Mrs C Ferrier

Introduction

Biology is the fastest developing Science with Genetically Modified Technology and Climate Change constantly in the headlines. This course offers a comprehensive insight into the distinct aspects of Biology. There are millions of varied species on the planet, and the course follows a comparative approach into the ways in which species have evolved adaptations to overcome the 'trials of life'.

The Course

Year One

- Basic Biochemistry: Carbohydrates, Lipids and Proteins
- Cell Structure, Organisation and Cell Division
- Cell Membranes and Transport
- Biological Reactions Regulated by Enzymes
- Nucleic Acids and their Functions
- Biodiversity and Classification
- Adaptations for Gas Exchange
- Adaptations for Transport
- Adaptations for Nutrition



Year Two

- Photosynthesis and Respiration
- Microbiology
- Homeostasis and the Kidney
- The Nervous System
- Sexual Reproduction in Humans and Plants
- Variation and Evolution
- Application of Reproduction and Genetics
- Ecosystems and human Impact on the Environment
- Immunology and Disease

Assessment

AS - Year 12
Two written examinations in the summer term of Year 12 for the AS qualification worth 40% of the full A Level grade

A Level - Year 13
Two written examinations in the summer term of Year 13 - 50% of the final A Level. A practical exam in the summer term of year 13 worth 10% of the full A Level grade



Entry Requirements

As a minimum, students will require:

- GCSE grade B/6 in Biology and another Science subject grade B/6 **or**
- GCSE grade B/6 in the Higher Double Award Science **or**
- GCSE grade B/6 in Core and Additional Science, Higher Tier

plus

- GCSE grade B/6 in Mathematics as this course has a mathematics module worth 10%
- GCSE grade C/4 or above in English



Links to Future Careers

Biology not only allows students to access a wide range of biological sciences from ecology to microbiology to medicine, but also supports other sciences and paths opened by those.
Biology A Level will provide students with the skills for higher education and an excellent foundation for careers in medicine, veterinary sciences, nursing, and biology. Both AS and A2 Biology are excellent courses for non-biological degrees. Students might also consider how useful Biology is for other courses/careers, for example:

- Archaeology
- Pharmacology
- Speech therapy
- Psychology
- Law

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