

# BIOLOGY

## WJEC A LEVEL

Biology is the fastest developing Science with GM Technology and Climate Change constantly in the headlines. This course offers a comprehensive insight into the many different aspects of Biology. There are millions of different species on the planet and the course follows a comparative approach into the ways in which species have evolved particular adaptations to overcome the "trials of life".

### The Course Involves:

#### 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

- Two written examinations in the summer terms that will assess: theoretical knowledge, practical skills, and mathematical skills - 90%
- One practical assessment which is sat in the second year -10%

### Particular Subjects, Skills or Interests

As a minimum, students will require:

- a) A GCSE grade B/6 in Biology & one other Science subject grade B/6 or
- b) A GCSE B/6 grade in the Higher Double Award Science or
- c) A GCSE B/6 grade in Core & Additional Science, Higher Tier

Students are also required to have a grade B/6 in Mathematics as this course has a mathematics module worth 10%.

### Post-18 Opportunities

Biology A Level will provide you 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 many non-biological degrees. You might also consider how useful Biology is for other courses/careers, for example; archaeology, pharmacology, speech therapy, psychology and law.

**Subject Leader:** Mrs C Ferrier

### Subject Champions 2021/22



#### Erin Platt

**Studying:** Welsh Bacculaureate, Biology, Geography and Psychology.

**Future aspirations:** To study midwifery at university.

#### Emily Soden

**Studying:** Welsh Bacculaureate, Biology, Chemistry, Maths and History.

**Future aspirations:** to study medicine at university.

*"We have always enjoyed studying Biology because it is all about the world around us and how we work. Our favourite topics are Human Physiology, for example the renal system. The teachers are enthusiastic and I feel I can always ask for extra help or support when needed."*