

# Biology

## Exam Board: WJEC

As a department, we will aim to develop your interest in, and enjoyment of, Biology. The course will help you develop an in-depth understanding of a wide range of biological concepts and the skills needed to apply these in new and changing situations. You will gain further insight into the methods used in scientific research. If you are interested in human biology, environmental biology, biochemistry or plant biology, then the course covers all of these aspects.

### Minimum Entry Requirements

- A minimum of 6 A\* to C grades at GCSE. This must include **BB** grades in double science (higher tier) or a **B** grade in separate biology. **B** grades in English, Mathematics and Numeracy are also required due to the high literacy and numeracy demands of the new specification.

If you have any queries, please contact Mr A Cummings (Head of Department).

### The AS course

#### Basic Biochemistry and Cell Organisation (AS Level 50% / A Level 20%)

- This unit incorporates the biochemistry and structure which is fundamental to the functioning of living organisms: structure and function of biological compounds and enzymes; basic cell structure and organisation; cell division; cell membranes; membrane transport.

#### Biodiversity and Physiology of Body Systems (AS Level 50% / A Level 20%)

- This unit is intended as an overview of a variety of organisms with the emphasis on the comparative adaptations. It is not intended that there should be a detailed coverage of the anatomy and physiology of such a wide range of organisms nor are students expected to memorise the detailed classification of any groups.

### The A2 course

#### Energy Homeostasis and the environment (A Level 25%)

- This unit involves the study of energy supply in living organisms along with microbiology and populations, homeostasis and nervous system plus how humans impact on our environment.

#### Variation, Inheritance and Options (A Level 25%)

- This unit involves the study of variation and evolution plus genetics and applications. It also allows for a section of the work to be chosen by the centre, this will include immunology and disease or human musculoskeletal anatomy **or** neurobiology and behaviour.

#### Practical work (A Level 10%)

- This will be a two-part exam at the end of Year 13 that will assess the pupils' practical and analytical skills. The context can be taken from any of the four preceding units.

### Career Opportunities

An A Level in Biology will support a student's application for a wide range of further education courses including degrees in, but not limited to, medicine, dentistry, physiotherapy, forensic science and environmental health.