

# EDUQAS GCE BIOLOGY

## Why choose Eduqas GCE Biology?

Biology is the study of life. It will enable you to develop a vast array of skills and acquire knowledge about the natural world and all the living things within it.

Gaining an A-level in this subject opens up a vast range of opportunities for both university degrees and career options.

## What will I study?

In **AS Biology** there are two themed components.

**Component 1: Basic Biochemistry and Cell Organisation.** This component covers the topics of biological molecules, cells, enzymes and cell division.

**Component 2: Biodiversity and Physiology of Body Systems.** This component covers the biodiversity of organisms, adaptations that organisms have for gas exchange, transport and nutrition.

In **A level Biology**, you will learn about a number of core concepts which are fundamental to the functioning of living organisms. These include biological molecules, cell structure and enzymes. The rest of the content is within three themed components.

**Component 1: Energy for Life.** This component covers the topics of photosynthesis, respiration, microbiology, ecosystems and human impact on the environment.

**Component 2: Continuity of Life.** This component covers biodiversity, cell division, reproduction in animals and plants, inheritance and the application of reproduction and genetics.

**Component 3: Requirements for Life.** This component covers the adaptations that organisms have for gas exchange, transport and nutrition, homeostasis and the kidney and the nervous system. There is also a choice of one option topic from the following: Immunology and Disease, Human Musculoskeletal Anatomy or Neurobiology and Behaviour.

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## What skills will I develop?

- A level Biology will enable you to develop an understanding of different areas of biology and how they relate to each other.
- Competency in a variety of investigative and practical techniques. These would include using a microscope, recording quantitative measurements in a variety of contexts, microbiology, fieldwork and dissection
- The ability to apply appropriate mathematical skills in biological contexts.
- The confidence to apply biological knowledge to unfamiliar contexts
- You will be able to analyse, interpret and evaluate scientific information

## How will I be assessed?

### AS biology: Two written examinations

**Component 1: Basic Biochemistry and Cell Organisation** Written examination 75 marks (1 ½ hours)

**Component 2: Biodiversity and Physiology of Body Systems** Written examination 75 marks (1 ½ hours)

### A level Biology: Three written examinations: 2 hours (100 marks) each.

**Component 1: Energy for Life.** Written examination 100 marks (2 hours)

**Component 2: Continuity of Life** Written examination 100 marks (2 hours)

**Component 3: Requirements for Life.** Written examination 100 marks (2 hours)

**Section A:** 80 marks compulsory questions

**Section B:** 20 marks from a choice of 1 out of 3 options

### Practical Endorsement

In addition to the written examinations, your practical skills will be assessed throughout the A level course. These are assessed by your teacher and you will be expected to keep a record of your practical work. At the end of the course your teacher will decide whether you have reached the required standard and this will be reported separately to your A level grade on your results certificate. Most universities now require a pass in the Practical Endorsement as part of their entry requirements for Science based degree courses.

## Careers with Biology

An A level in Biology can open up a wealth of career paths. These include jobs within the following fields: Medicine and healthcare, Science and research, Agriculture, Sport and Fitness and Education.