



### Entry Criteria:

- You will need to achieve the pathway criteria, please see the prospectus for further information
- You will need to achieve a Grade 5 or above in GCSE Mathematics
- You will need to achieve a GCSE Science with a significant Biology component (for example, Core and Additional Science) at Grade 5 or above.

### Coursework/Examination Requirements:

AS Assessment	Two written examinations each worth 50%
A Level Assessment	Three written examinations each worth 33.33%.

**Awarding Body/Specifications:** Edexcel Biology A (Salters-Nuffield)

**Advanced Level (A Level):** Biology is the study of life processes and living organisms. The study of Biology takes account of the tremendous advances presently being made in the subject in areas such as molecular biology, cell biology, medical physiology, genetics, biotechnology, biodiversity, conservation and evolutionary studies. Studying Biology opens up many varied career pathways. **The following units will be covered on this course:**

**Unit 1: Lifestyle, Health and Risk.** Structure and function of the circulatory system. Risk factors for CVD. Carbohydrates and lipid structure.

**Unit 2: Genes and Health.** Cell membranes structure and transport. Protein structure and synthesis. DNA replication and monohybrid inheritance.

**Unit 3: Voice of the Genome.** Cell structure, ultrastructure and cell division. Stem cells, gene expression and cell differentiation.

**Unit 4: Biodiversity and Natural Resource.** Biodiversity, sustainability and the role of zoos and seed banks. Plant anatomy and function. Classification of species.

**Unit 5: On the Wild Side.** Biochemistry of photosynthesis, evidence for climate change and effects on plants and animals. Extinction and evolution of species.

**Unit 6: Immunity, Infection and Forensic.** Structure of bacteria and virus. The non-specific and specific immune response.

**Unit 7: Run for Your Life.** Animal physiology and performance. Biochemistry of respiration.

**Unit 8: Grey Matter.** Brain and nervous system structure and function relative to the development of vision and learning.

**Advanced Subsidiary (AS):** If you choose to study this subject for one year only, you will be awarded the AS Level. You will cover the AS unit content 1, 2, 3 and 4 and sit public examinations in Year 12.

**Progression:** Any career that requires qualities such as adaptability, creativity, curiosity, tenacity and analytical skills. Former students have studied the following degrees at Higher Education: Medicine, Pharmacy, Oceanography, Zoology, Dentistry, Paramedic Science, Sports Science, Natural Science, Business, Midwifery, Geology, Law, Forensic Science, Genetics, Biochemistry, Biology Chemistry and many more.

**Opportunities:** The course has excellent resources which are found on the course website so that you will be able to access work from home. Ecology field trips can be expected in the summer term supporting Unit 5 and biotechnology workshops supporting Unit 6 at the start of Year 13.