**KS5 Curriculum Handbook Subject Page - Biology**

**Subject:** A Level Biology

**Syllabus:** AQA A Level Biology (7402)

**What will I learn?**

The course is divided into eight sections, with four sections covered during **Yr12** and the remaining four covered in Yr13.

* **1** [**Biological molecules**](https://www.aqa.org.uk/subjects/science/as-and-a-level/biology-7401-7402/subject-content/biological-molecules)
* **2** [**Cells**](https://www.aqa.org.uk/subjects/science/as-and-a-level/biology-7401-7402/subject-content/cells)
* **3** [**Organisms exchange substances with their environment**](https://www.aqa.org.uk/subjects/science/as-and-a-level/biology-7401-7402/subject-content/organisms-exchange-substances-with-their-environment)
* **4** [**Genetic information, variation and relationships between organisms**](https://www.aqa.org.uk/subjects/science/as-and-a-level/biology-7401-7402/subject-content/genetic-information,-variation-and-relationships-between-organisms)
* 5 [Energy transfers in and between organisms](https://www.aqa.org.uk/subjects/science/as-and-a-level/biology-7401-7402/subject-content/energy-transfers-in-and-between-organisms-a-level-only)
* 6 [Organisms respond to changes in their internal and external environments](https://www.aqa.org.uk/subjects/science/as-and-a-level/biology-7401-7402/subject-content/organisms-respond-to-changes-in-their-internal-and-external-environments-a-level-only)
* 7 [Genetics, populations, evolution and ecosystems](https://www.aqa.org.uk/subjects/science/as-and-a-level/biology-7401-7402/subject-content/genetics,-populations,-evolution-and-ecosystems-a-level-only)
* 8 [The control of gene expression](https://www.aqa.org.uk/subjects/science/as-and-a-level/biology-7401-7402/subject-content/the-control-of-gene-expression-a-level-only)

**How will I be assessed?**

There are three exams at the end of the two years for A-level, all of which are two hours long. Students are also required to complete 12 practical activities to a set standard. Questions based on these practical activities will feature in the final examinations.

**How will this prepare me for my next steps? What career can I look forward to?**

The delivery of our A Level Science courses uses University style teaching in order to support in developing independent learning skills, and our past students have consistently reported how this has led to them feeling far more prepared than their peers when embarking upon their degree courses at University.

Careers directly related include Medicine (medical professions), Veterinary Science, Dentistry, Pharmacy, Physiotherapy, Biomedical Science, Microbiology, Marine biology, Conservation, and Environmental Science, Agricultural Engineering and Zoology.

The transferable skills developed would also be useful in a diverse range of careers including Law, Business and Psychology (with Biology a requirement for some Psychology degrees).

**Contribution to UTC/Studio aims**

Biologists develop skills and understanding of scientific methods, data analysis, observation, correlations and causal relationships. Biology also helps students to develop research, problem solving, organisation and analytical skills.

Our delivery of Key Stage 5 Science aims to provide a unique educational experience that delivers both theory and practice to the highest possible standards. By combining scientific skills with rigorous theoretical study, we aim to allow students to exceed expectations in lessons that are innovative, stimulating and exciting, leading them to successful careers and life experiences.

We have utilise an innovated model for delivering A Level subjects called the Triple A Model – Acquire, Apply, Asses. This model is designed to promote a love of learning, as well as incorporate pedagogical approaches that reflect current research in the Science of Learning. The routines and structures in place will support students into becoming effective independent learners, which also supports them towards success in futures studies in Higher Education.

**Universities**

According to The Complete University Guide (2022), the top Universities for a degree in Biological Sciences are –

[University of Cambridge](https://www.thecompleteuniversityguide.co.uk/universities/university-of-cambridge)

[University of Oxford](https://www.thecompleteuniversityguide.co.uk/universities/university-of-oxford)

[University of St Andrews](https://www.thecompleteuniversityguide.co.uk/universities/university-of-st-andrews)

[University of Strathclyde](https://www.thecompleteuniversityguide.co.uk/universities/university-of-strathclyde)

[UCL (University College London)](https://www.thecompleteuniversityguide.co.uk/universities/ucl-university-college-london)

[University of Dundee](https://www.thecompleteuniversityguide.co.uk/universities/university-of-dundee)

Imperial College London

[University of Edinburgh](https://www.thecompleteuniversityguide.co.uk/universities/university-of-edinburgh)

Durham University

[University of Glasgow](https://www.thecompleteuniversityguide.co.uk/universities/university-of-glasgow)