

## BIOLOGY

Biology is the study of life; when sometimes, just sometimes, the atoms that make our universe come together in an organised way to produce a living organism. A-level Biology aims to increase pupils' knowledge and understanding of how these organisms function and how they interact with each other and the environment. Biology is a rapidly developing subject at the forefront of current affairs with regard to genetics, medicine and the environment.

### The course

At A-level, students taking Biology at Colfe's will study topics such as cell biology, biological molecules, exchanges with the environment, genetics and genetic technologies, biochemical pathways, coordination of organisms via nervous and hormonal pathways, evolution and ecology.

A-level Biology, like most other A-level subjects, is a linear course. Thus, students only sit their A-level exams at the end of Year 13. The exams at the end of Year 13 assess all of the topics covered in Year 12 and Year 13. The key to success in A-level Biology is understanding how to apply knowledge to novel scenarios, analyse experimental data and evaluate practical methodology. As such the course develops evaluative skills that are useful in a broad range of careers.

Practical investigative skills are assessed via 12 pieces of practical work that cover core skills. These are assessed on a pass/fail basis, leading to a practical endorsement that does not contribute to the overall A-level grade. Practical skills are also assessed in the written exam papers.

Biology can be combined well with a wide range of other A-level subjects, especially Chemistry, Physics, Maths, Geography and Psychology.

**Biology would be a good A-level choice for pupils who:**

- Enjoy GCSE Biology as a subject and achieve grade 7s (or above) in GCSE Biology and GCSE Chemistry and GCSE Mathematics. Note: Students sitting the Trilogy/Combined Science exams will need to achieve two grade 8s (or above) in GCSE Science and a grade 7 (or above) in GCSE Mathematics.
- Are interested in the topics studied at GCSE Biology but want to look deeper into their complexities.
- Want to understand how life works at a fundamental level.
- Have a good eye for detail and can research and learn large amounts of interesting information.
- Are good at applying knowledge gained to new situations, 'suggesting' logical answers.

### Biology A-level and beyond

Biology can lead to careers in:

- Medicine
- Dentistry
- Veterinary Science
- Ecology
- Physiotherapy
- Sports Science
- Microbiology
- Biochemistry
- Biomedical Sciences
- Genetics
- Neurosciences
- Law
- Biochemical Sciences

Biology is a popular choice at A-level and there are currently over 40 students studying this subject. Many pupils achieve excellent results (71% A\*-A last year) and go on to study related Higher Education courses.