

A-Level Biology

Miss Hide - Director of Science
Ms Modi – Second in Science



Why study Biology?

- Biology A-level will give you the skills to make connections and associations with all living things around you.
- Biology literally means the study of life and if that's not important, what is?
- Being such a broad topic, you're bound to find a specific area of interest, plus it opens the door to a fantastic range of interesting careers.

Course overview

AS Biology is one year long, with exams at the end.

A-level Biology lasts two years, with exams at the end of the second year.

AS and first year of A-level	Second year of A-level
1. Biological molecules	5. Energy transfers in and between organisms
2. Cells	6. Organisms respond to changes in their internal and external environments
3. Organisms exchange substances with their environment	7. Genetics, populations, evolution and ecosystems
4. Genetic information, variation and relationships between organisms	8. The control of gene expression

Assessment

For the A level course there are 3 written papers.

- The first two written papers last 2 hours each and cover topics 1 to 4 and 5 to 8, respectively.
- The third written paper also lasts for 2 hours but assesses practical technique, critical analysis of experimental data and includes a 25 mark synoptic essay question.
- Throughout the course students will be assessed on their practical skills and receive a separate endorsement of practical skills alongside the A Level grade at the end of the course. This is reported as either a Pass or Fail.

Practicals

You will also be required to complete **12 assessed practical tasks** over the 2 year course including:

- Using microscopes to see cell division
- Dissection of animal or plant systems
- Aseptic technique to study microbial growth
- Investigating activity within cells
- Investigating animal behaviours
- Investigating distributions of species in the environment.

These practicals will give you the skills and confidence needed to investigate the way living things behave and work. It will also ensure that if you choose to study a Biology-based subject at university, you'll have the practical skills needed to carry out successful experiments in your degree.

What you can expect from Biology lessons:

- Engaging lessons that stretch and challenge.
- Biology consists of a lot of theory so there are learning check and application tasks.
- Regular practical's in addition to required practical.
- **5 hours of lessons** a week.
- **3 hours** minimum additional reading and tasks outside of lesson.
- Study room sessions to support you further.

We support learning by:

- Setting homework that encourages recall and additional research.
- Assessing student progress through in class activities, exam question assessments and exam question homework.
- Identifying gaps in understanding and filling those gaps so that success is in every students' grasp.

Extra curricular options

- Opportunities to attend lectures at prestigious universities such as Imperial College London and UCL.
- Ecology based trips to Kew Gardens.
- Different residential trips, for example; during the 2022 summer holidays, students will be taking part in the Rhino Conservation Project in South Africa.



Past Student Success



Suakshi Garg
A
Went to study Medicine at
Imperial College London



Jemima Brown
A*
Went to study Biomedical
Science at Bristol University

Other success stories:
Alex Honein-Gonzalez- A*
Louisa Kietly- A*
Fionnuala Aldons- A
Robert Crowther- A
Kareena Gurund- A
Tamara Toama- A



Eddie Honein
A*
Went on to read Natural
Sciences at the
University of Cambridge



Hannah Alcock
A*
Went on to read
Biomedical Science at
the University of Oxford

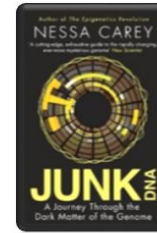
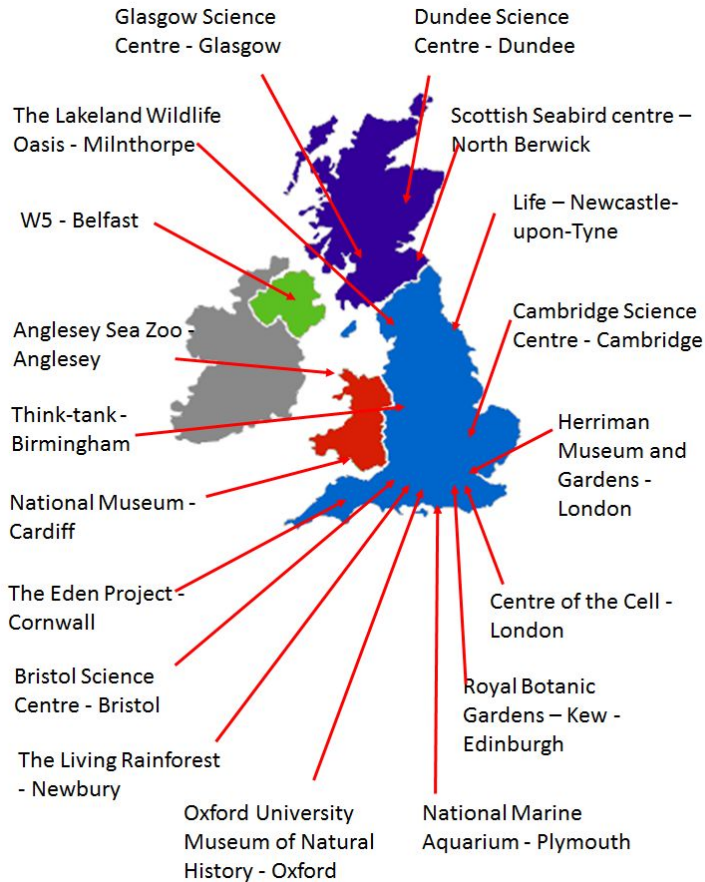


Marya Faye
A
Offered a place at
Imperial College London
to read Medicine



Maciej Bugala
A
Went on to read Human
Sciences at the University of
Oxford

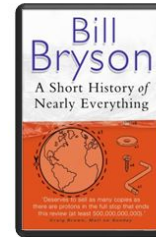
Independent extracurricular opportunities



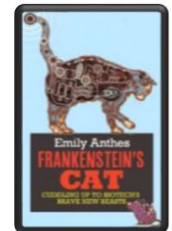
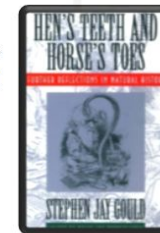
Junk DNA
 Our DNA is so much more complex than you probably realize, this book will really deepen your understanding of all the work you will do on Genetics. Available at amazon.co.uk

Studying Geography as well?
Hen's teeth and horses toes
 Stephen Jay Gould is a great Evolution writer and this book discusses lots of fascinating stories about Geology and evolution. Available at amazon.co.uk

The Red Queen
 Its all about sex. Or sexual selection at least. This book will really help your understanding of evolution and particularly the fascinating role of sex in evolution. Available at amazon.co.uk



A Short History of Nearly Everything
 A whistle-stop tour through many aspects of history from the Big Bang to now. This is a really accessible read that will re-familiarise you with common concepts and introduce you to some of the more colourful characters from the history of science! Available at amazon.co.uk



An easy read...
Frankenstein's cat
 Discover how glow in the dark fish are made and more great Biotechnology breakthroughs. Available at amazon.co.uk