

Why choose History at Highbury Grove: Highbury Grove History results have improved year on year with students going on to study History at both Birmingham and York University in the autumn of 2015. We are an experienced team with experiences including the teaching of Edexcel for a number of years and exam board marking.

History at HGS is taught as a discrete subject from Year 7 to Year 13. There are a wide range of opportunities to get involved in the subject both in and out of the classroom. We are a strong experienced team of Historians that share a vision that History should be relevant, thought provoking and challenge students to think about how historical events and individuals have been remembered. History at HGS is taught as a discrete subject from Year 7 to Year 13. There are a wide range of opportunities to get involved in the subject both in and out of the classroom. We are a strong experienced team of Historians that share a vision that History should be relevant, thought provoking and challenge students to think about how historical events and individuals have been remembered.

Entry Requirements:

Your GCSE's must include:

- Maths: B
- English: B
- BB in Double Award GCSE Science or BBB in Triple Award GCSE Science. The B grade must be solid B's rather than just over the borderline.

There is a very good reason for this. Biology A level requires strong data analysis skills from the first lesson, and you will also need to be able to carry out statistical tests in the second year, so your mathematical skills must be up to this. Your English needs to be good as many of the examinations require extended reading and writing and in the second year the exam involves writing essays.

"I have had such a fantastic time at Highbury Grove. My Biology teachers have really supported me and now I am studying Medicine at Uni"

Why choose Biology: Biology is the science that studies all aspects of life. It draws in ideas from Chemistry and Physics to do this. Biology is relevant to almost all aspects of the world around us today, many of which are currently in the media. For example, modern medicine, drugs and pharmaceuticals rely on a knowledge of how the human body works and what happens when it fails. Similarly environmental science asks how we can best live on the planet without destroying natural habitats and biodiversity. The study of the spread of disease (epidemiology) requires an understanding of what causes the disease and its risk factors before any vaccination or treatment program can occur.

Biology raises many ethical issues that are fundamental to an understanding of how science works, and this is discussed during the course. For example, intensive farming of animals and plants throws up ethical questions about biodiversity, the use of embryonic cells to treat diseases generates questions about whether it is right to use cells from embryos.

Biology is therefore a diverse and wide ranging subject that will develop the following skills:

- Data analysis
- Planning and manipulation of scientific equipment in experiments
- An understanding of the current issues and controversies in the use of Biology
- An understanding of man's impact on the environment
- Being able to communicate scientifically to different audiences

It is not an easy subject to study, but the rewards are great.

Future Prospects: The course will be good preparation for anyone wishing to study Biological Science at university. Biology is often required for university courses in medicine, pharmacology and dentistry. Like the other sciences, A-level Biology is highly respected and is also recognised as an excellent qualification for anyone wishing to study non-scientific subjects at university.

Biology is unique among the sciences for the broad range of skills it helps students develop. This, coupled with the high level of academic rigour it demands, make it a desirable choice for anyone who has been successful at GCSE science and wishes to enter a top university for academic study.



What I will learn on this course: AS Biology comprises of 4 topics and related practical and mathematical skills. A level Biology covers the same 4 topics as AS and then another 4 topics and further practical and mathematical skills.

Topics

1. Biological molecules
The structure and function of carbohydrates, lipids, proteins, DNA, ATP and water in living things.
2. Cells
Microscopy techniques and the structure of eukaryotic and prokaryotic cells as well as the processes of cell division, cell transport and immunity.
3. Organisms exchange substances with their environment
Gas exchange, digestion, absorption and mass transport in plants and animals.
4. Genetic information, variation and relationships between organisms
The arrangement of DNA and the process of protein synthesis and meiosis. Applying understanding of diversity and adaptation to taxonomy and community biology.
5. Energy transfers in and between organisms (A-level only)
Photosynthesis, respiration, energy in ecosystems and nutrient cycles.
6. Organisms respond to changes in their internal and external environments (A-level only)
Survival and response, control of heart rate, the nervous system and homeostasis. Genetics, populations, evolution and ecosystems (A-level only)
7. Patterns and mechanisms of inheritance with populations and how this leads to speciation.
8. The control of gene expression (A-level only)
The impact of mutations on gene expression, specifically cancer. The use of recombinant DNA technology and genetic fingerprinting

Assessment and Examination:

AS - 2 Exams sat at the end of year 12

Paper 1	+	Paper 2
What's assessed <ul style="list-style-type: none"> Any content from topics 1–4, including relevant practical skills 		What's assessed <ul style="list-style-type: none"> Any content from topics 1–4, including relevant practical skills
Assessed <ul style="list-style-type: none"> written exam: 1 hour 30 minutes 75 marks 50% of AS 		Assessed <ul style="list-style-type: none"> written exam: 1 hour 30 minutes 75 marks 50% of AS
Questions <ul style="list-style-type: none"> 65 marks: short answer questions 10 marks: comprehension question 		Questions <ul style="list-style-type: none"> 65 marks: short answer questions 10 marks: extended response questions

A Level - 3 Exams sat at the end of year 13

Paper 1	+	Paper 2	+	Paper 3
What's assessed <ul style="list-style-type: none"> Any content from topics 1–4, including relevant practical skills 		What's assessed <ul style="list-style-type: none"> Any content from topics 5–8, including relevant practical skills 		What's assessed <ul style="list-style-type: none"> Any content from topics 1–8, including relevant practical skills
Assessed <ul style="list-style-type: none"> written exam: 2 hours 91 marks 35% of A-level 		Assessed <ul style="list-style-type: none"> written exam: 2 hours 91 marks 35% of A-level 		Assessed <ul style="list-style-type: none"> written exam: 2 hours 78 marks 30% of A-level
Questions <ul style="list-style-type: none"> 76 marks: a mixture of short and long answer questions 15 marks: extended response questions 		Questions <ul style="list-style-type: none"> 76 marks: a mixture of short and long answer questions 15 marks: comprehension question 		Questions <ul style="list-style-type: none"> 38 marks: structured questions, including practical techniques 15 marks: critical analysis of given experimental data 25 marks: one essay from a choice of two titles

All Y12 Biology students will sit the AS exams in the summer of Y12. Only those who pass with a D or above will be eligible to complete the full A level.

