

International Baccalaureate Biology

@ Durham Sixth Form Centre

"The fact of evolution is the backbone of biology, and biology is thus in the peculiar position of being a science founded on an improved theory, is it then a science or faith?"

- Charles Darwin

Biology is a Group 4 subject and any student who chooses to study it will become aware of how scientists work and communicate with each other. They will develop a knowledge and understanding of biological concepts and key scientific concepts through the study of the Biology IB syllabus. Throughout this course various teaching and learning styles and laboratory exercises will be adopted to allow the full aims of the IB course to be met (including internationalism and TOK). This will make Biology an exciting and challenging course to study.

Duration of Courses:

Standard Level (150 hours) Higher Level (240 hours)

Assessment:

External: The external assessment consists of three written papers at the end of year 2 with an overall weighting of 76%.

- Paper 1 - multiple choice (20%)
- Paper 2 - Section A is short answer while Section B extended response. (HL 36%, SL 32%)
- Paper 3 tests knowledge of the options (HL 20%, SL 24%)

Internal: Assessment of practical work. Higher level students will spend 50 hrs of the course on practical work, and standard level students will spend 30 hrs. All practical work will be written up in a log book. Practical work is internally assessed and is worth 24% of the final grade for the Biology IB.

Course Content:

The syllabus is delivered in a series of topics. All students will study the core topics at Standard Level (Topics 1-6) while only the Higher Level students will study the additional topics (Topics 7-11). They are :

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| 1. Statistical analysis | 6. Human health and physiology |
| 2. Cells | 7. Nucleic acids and proteins |
| 3. The chemistry of life | 8. Cell respiration and photosynthesis |
| 4. Genetics | 9. Plant science |
| 5. Ecology and evolution | 10. Genetics |
| | 11. Human health and physiology |

Students will also study two options.

Group 4 Project:- Being interdisciplinary, students will be working in collaboration with other scientists, gaining hands-on appreciation of scientific work.

Internationalism: Students studying Biology IB will develop internationally transferrable skills and a global awareness through the study of international topics such as AIDS and the greenhouse effect.



The process of scientific discovery is, in effect, a continual flight from wonder.

- Albert Einstein