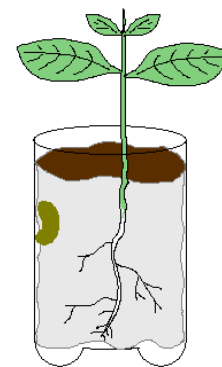


IB BIOLOGY

Contact Person - Miss F. Salmon



ENTRANCE REQUIREMENTS:

For higher level students should achieve an A grade in GCSE additional science or an A in GCSE Biology.

For standard level students should achieve a B grade in GCSE additional science or a B in GCSE Biology.

THE SUBJECT

Studying Biology at IB will involve a symbiotic relationship between theory and experiment. The course aims to provide students with skills to understand and evaluate the major Biological concepts through the study of:

- The various levels of organisation within organisms, in relations to the functions they form
- Physiological and Biochemical processes within organisms
- The history of life on earth. Genetics at both Mendelian and molecular levels
- The mechanism and evidence of evolutions and evolutionary affinities of different groups.
- Organisms in relation to each other and their environment

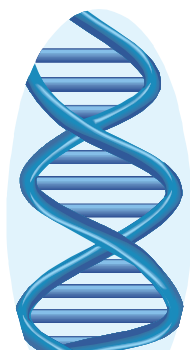
There are many opportunities within the course for students to develop presentation, teamwork and communication skills. In addition, the study of the history of ideas about the nature of Biology highlights the highly international nature of the subject. Students will be exposed to the global nature of the subject when studying the very large experiments such as the Human genome project. Finally the moral, ethical, social and environmental implications of the development of modern technologies based on Biological processes will be studied.

THE COURSES

Students can choose to study Biology either at Higher Level or at Standard Level:

Higher Level (HL)

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



Standard Level (SL)

1. Statistical analysis
2. Cells
3. The chemistry of life
4. Genetics
5. Ecology and evolution
6. Human health and physiology
7. Option C: Cells and Energy
8. Option G: Ecology and Conservation

TEACHING

A similar range of teaching styles and strategies are employed as the A level courses, but students are expected to take more responsibility for their own learning, making full use of the school resource centre in order to consult a range of further reading material, both in books and online. Deadlines for the presentation of work to be marked must be strictly adhered to

ASSESSMENT

Assessment is via external and internal means. The external assessment (76%) is made at the end of the 2 year course. There will be three written papers: Paper 1 is made up of multiple choice questions in which calculators are not permitted; Paper 2 has two sections, one of which is a data-based questions involving analysis techniques, the other consisting of extended response questions; Paper 3 has several short answer questions and an extended response question in each of the two options studied.

The internal assessment (24%) consists of an interdisciplinary project and a mixture of short- and long-term investigations. Student work is internally assessed by the teacher and externally moderated by the IBO. For students taking the HL, 60 hours of practical work will be carried out, and 40 hours for those at SL. Of these, a number will be assessed for the following criteria: Design (D), Data Collection and Processing (DCP) and Conclusion and evaluation (CE). The two best scores for these will be sent to the IBO. The Manipulative Skills (MS) criterion will be assessed over the full practical sessions, whilst the final internal assessment criterion, Personal Skills (PS) will be judged during the Group 4 project. During the course the students' progress will be closely monitored via a series of in-school assessments as they complete each area of study as outlined in the topics above.