

Biology (inc. Human Biology)



Why choose Biology?

At AS Level in Year 12, students may choose Biology or Human Biology. In Year 13 all students take a common Biology course leading to an A Level in Biology. The Human Biology option at AS Level is recommended only for students with a particular interest in P.E., Sports Science, Health and Social Care, Nursing.

- Biology is the “cutting edge” Science and it’s in the news constantly: GM crops, cloning, designer babies, DNA fingerprinting, antibiotic resistance, vaccinations e.g. MMR, global warming, over-fishing.
- You study the basic organisation of living organisms, and how they work and interact with the environment.
- Enthusiastic, committed team of teachers. Thrilling tutorials
- Good value-added examination results. No coursework
- Lots of practicals and interactive ‘hands on’ tasks
- Interesting lessons which are enjoyable and fun
- Opportunity to attend a 3 day residential Ecology field course at the Conway Centre, Anglesey. You will develop your Key Skills and get to know others on the course
- Visit Celyn College, Northop to study monoculture and micropropagation of plants and handle snakes in the animal unit.
- Spend a day in the Science and Natural History Museum, London.

Progression

- Many students continue to biology - related courses e.g. medicine, dentistry, pharmacy, physiotherapy, nursing, microbiology, biochemistry, marine biology, conservation.

AS Biology Course Details

AS Modules (BY1, BY2 or HBY2, BY3)

BY1 Biochemistry and Organisation

Biological compounds, Cell structure, organisation and division, Cell membranes and transport, Enzymes, including medical and industrial application, Nucleic acids, Genetic engineering and gene therapy

BY2 Biodiversity and Physiology of Body Systems

Biodiversity and classification, Gas exchange and transport in plants and animals, Reproductive strategies, Nutrition and parasitism

HBY2 Human Biology

Biodiversity and classification, Human digestive system and related diseases, Gas exchange and transport in humans, Human defence mechanisms, Pathogens, spread of human disease and control

BY3 Practical Assessment

Microscope work, Planning and carrying out investigations

Assessment

Written papers for both BY1 and BY2 or HBY2

- Each paper is 1hour 30mins and worth 40% of total AS
- Data response questions and one essay – type question

Supervised practical assessment

- Externally marked
- Worth 20% of total AS score

Departmental Information

- Dr D James – Curriculum Team Leader, WJEC AS/A2 Biology Examiner (B2)
- Mr G.Evans – Assistant Headteacher (Office L6)
- Miss K.Frankland – Deputy Leader Sixth Form (Sixth Form Office)
- Mr M.Foo - WJEC GCSE Biology Examiner (B1)
- Mr S.Rhind (C20)
- Mrs S Hodby - Deputy Head, Dyfed House (Dyfed House Office)
- Mr R Warburton (B3)

Student comments

‘I thoroughly enjoyed studying Biology at the Alun and would recommend it to anyone’
– Nicola Poole, taking Biology at Manchester

‘I enjoyed the Ecology field course so much that I decided to spend 6 months in a Safari Park in Africa, during my gap year’
– Gemma Baron, taking Zoology at Newcastle

‘The teachers work as a team and give you lots of help with revision’
– Heather Vernon, taking Zoology at Durham

‘The fruit fly breeding programme inspired me to study Genetics at University’
– Julie Maundrel, taking Genetics at Imperial College, London

‘When I moved from a Welsh medium School, the teachers were patient and encouraged me to learn all the biology terms in a different language – English!’
– Dewi Eden, taking Medicine at Manchester