Biology A Level

Subject Leader: Mr James

Syllabus: OCR Biology

Course Specification: H420

Course Information
Admission to the course is dependent on achieving a minimum of 5 GCSEs grades 9 – 5.
Grade 7-6 in Combined Science or Grade 6 in Biology & Grade 6 in Maths

Year 1 Study
Students will cover four modules of work during the course of the year:
Module 1 the development of practical skills in biology. This covers the planning, implementing, analysing and evaluation of practical procedures throughout the biology course.
Module 2 examines the foundations of biology and covers cell structure, biological molecules, nucleotides and nucleic acids, enzymes, biological membranes and cell division, cell diversity and cellular organisation.
Module 3 looks at exchange surfaces and transport in animals and plants.
Module 4 covers biodiversity, evolution, and disease. We examine communicable diseases, prevention, the immune system, biodiversity, classification, and evolution.

Year 2 Study
Students will further their biological knowledge by completing 2 further modules of work.
Module 5 looks at communication within the body, homeostasis, neural and hormonal communications, and plant and animal responses before concluding with photosynthesis and respiration.
Module 6 looks at cellular control, patterns of inheritance, how we manipulate genomes and how ecosystems function.

Assessment
Throughout the course, students will be assessed at the end of each topic to monitor progress, as well as through assessment of significant pieces of work. These assessments do not count towards the final grade. There will also be internal assessments at the start of the course and at the end of year 12. At the end of year 13, students sit 3 papers. The first is Biological Processes which assesses modules 1, 2, 3 and 5 and the second is Biological Diversity which assesses modules 1, 2, 4 and 6. Each of these papers is worth 37% of the final examination grade.

The third paper, worth 26% of the total A level, is Unified Biology and will ask questions from all content. There is also a Practical Endorsement in Biology which will be reported separately to the A level grade, where students keep a lab book of practical experiences over the 2 years of the course. In total, there are 12 practical areas that students need to have covered.

Teaching and Learning Styles
Biology is investigative by nature. Students will develop their practical skills as well as developing their analytical and thinking skills. They will be expected to communicate well both orally and in their written work, producing creative presentations of their understanding of the biology involved. There are also a significant amount of mathematical skills required.

Independent Study
Independent work is encouraged and promoted. Students must read up on content before the lesson and then use time after the lesson to complete work, for example, revision materials to further their understanding of the topic. Students would be expected to spend an average of 6 hours per week on independent study.

Future Pathways
Biology, like all the sciences, is a facilitating subject, one that many universities require students to have to get onto many degree courses. The A Level Biology A course will prepare learners for progression to undergraduate study, enabling them to enter a range of academic and vocational careers in biological sciences, medicine and biomedical sciences, veterinary science, agriculture, and related sectors. For learners wishing to follow an apprenticeship route or those seeking direct entry into biological science careers, this A level provides a strong background and progression pathway.

