



AS/A2 BIOLOGY

Head of Department – Dr P. Hocking

EXAMINATION BOARD AND SYLLABUS OCR

ENTRANCE REQUIREMENTS

GCSE Biology Grade A or Additional Science Grade A

THE COURSE

The aim of the course is to provide the knowledge required to understand and evaluate the major biological principles and concepts through the study of:

- the various levels of organisation (molecular, cellular, tissue etc.) within organisms, in relation to the function performed;
- physiological and biochemical processes and their homeostatic role in living organisms;
- genetics at both Mendelian and molecular levels;
- the mechanism and evidence of evolution and evolutionary affinities of groups; and
- organisms in relation to each other and their environment.

DIFFERENCE BETWEEN GCSE & A LEVEL

Students are expected to:

1. Show more independent thought and study.
2. Acquire more detailed/factual knowledge of individual topics.
3. Be able to communicate knowledge in continuous prose, or by means of drawings, graphs etc.
4. Extend their GCSE skills, i.e. handling biological materials and apparatus: recording, analysing and interpreting data, experimental design, observation.
5. Apply these skills to more demanding practical and theoretical exercises.

ORGANISATION OF WORK

The syllabus is divided into units of assessment, three at Advanced Subsidiary and a further three at Advanced Level. The Advanced Subsidiary units, completed and assessed in the lower sixth year contribute 50% to the assessment weighting of the full A Level. A major component of A2 work involves synoptic assessment of the whole course. It is

important that students develop a full understanding of all the key concepts in Biology even though the subject is assessed on a modular basis.

Up to 50% of lessons involve the use of practical techniques and exercises appropriate to the understanding and development of each topic area. Theoretical and practical assignments, to extend and develop work covered in lessons, are set on a weekly basis.

USEFUL SUPPORTING GCSE AND A LEVEL SUBJECTS

GCSE level: Chemistry

A Level: For students intending to study medical, veterinary or biological sciences to post A Level standard, Chemistry should also be studied.

Other useful combinations include:

- Physical Education
- Geography
- Psychology

SUMMARY OF CONTENT

AS Units

Unit F211: *Cells, Exchange and Transport*

Unit F212: *Molecules, Biodiversity, Food and Health*

Unit F213: *Practical Skills in Biology 1*

A2 Units

Unit F214: *Communication, Homeostasis and Energy*

Unit F215: *Control, Genomes and Environment*

Unit F216: *Practical Skills in Biology*