



A LEVEL BIOLOGY

Year 12 & 13

Topics studied:

AS Content

Module 1 – Development of practical skills in biology

- 1.1 Practical skills assessed in a written examination
- 1.2 Practical skills assessed in the practical endorsement

Module 2 – Foundations in biology

- 2.1.1 Cell structure
- 2.1.2 Biological molecules
- 2.1.4 Enzymes
- 2.1.5 Biological membranes
- 2.1.6 Cell division, cell diversity and cellular organisation
- 2.1.3 Nucleotides and nucleic acids

Module 3 – Exchange and transport

- 3.1.1 Exchange surfaces
- 3.1.2 Transport in animals
- 3.1.3 Transport in plants

Module 4 – Biodiversity, evolution and disease

- 4.1.1 Communicable diseases, disease prevention and the immune system
- 4.2.1 Biodiversity
- 4.2.2 Classification and evolution

A2 Content

Module 5 – Communication, homeostasis and energy

- 5.1.1 Communication and homeostasis
- 5.1.2 Excretion as an example of homeostatic control
- 5.1.3 Neuronal communication
- 5.1.4 Hormonal communication
- 5.1.5 Plant and animal responses
- 5.2.1 Photosynthesis
- 5.2.2 Respiration

Module 6 – Genetics, evolution and ecosystems

- 6.1.1 Cellular control 6.1.2 Patterns of inheritance
- 6.1.3 Manipulating genomes
- 6.2.1 Cloning and biotechnology
- 6.3.1 Ecosystems 6.3.2 Populations and sustainability.

Examination Board:

Year 12 & 13 will follow the OCR A Level Biology A Course Specification

Assessment Structure:

Biological Processes: 2 hours 15 minutes written exam. 100 marks including 15 multiple choice questions. 37% of A level

Biological Diversity: 2 hours 15 minutes written exam. 100 marks including 15 multiple choice questions. 37% of A level

Unified Biology: 1 hour 30 minutes written exam. 70 marks. 26% of A level

All of these external examinations will take place May/June in Year 13.

Subject specific websites to support revision and independent learning:

www.biologymad.com

www.savemyexams.co.uk

www.snaprevise.co.uk

Recommended subject guides:

A level Biology for OCR: J Locke & P Bircher (Oxford)

OCR A level Biology A: S Hocking & F Sochacki (Pearson)

A Level Biology for OCR A: Year 1 Book : CGP Books

Head Start to A Level Biology: CGP Books

There are also a number of useful support guides on the OCR web-site designed to support and enhance student learning

Additional Information:

In order to be able to develop their skills, knowledge and understanding in chemistry, students need to have acquired competence in the mathematical skills relevant to the subject content and which are applied in the context of a Biology A-level, including:

- calculate, use and understand ratios, averages and fractions
- calculate, use and understand percentages and percentage changes
- use of standard form and working to an appropriate number of significant figures
- rearrangement of the subject of a formula
- substituting numbers into and solving algebraic equations
- Statistical analysis of data using known equations

At the end of year 12 all students will sit a progression exam in which they must obtain a minimum of a Grade D in order to progress into year 13 in Biology

Independent home learning

You will be required to undertake a significant amount of preparation at home. You should be doing about 5 hours additional work per week. A level is a big step up. You will also be given 50 marks worth of exam questions to complete each week as homework.

