

# PARK HIGH SCHOOL **Biology**

Exam Board: Edexcel

Course Specification: 9BIO

Qualification obtained: The Pearson Edexcel Level 3 Advanced GCE in Biology B

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# **Subject Overview**

Biology A Level is designed to extend your understanding of the structure and function of living things and develop your ability to apply your understanding to explaining real-life and practical contexts. Practical work, mathematical skills and applying your knowledge to explain data forms an integral part of the course and there are 16 core practicals through which you will be assessed on these skills in class. In addition to practical investigations, you will study the following topics in-depth:

- Biological molecules
- Exchange and transport
- •Modern genetics
- •Ecosystems

- Cells and viruses
- Energy for biological processes
- Origins of genetic variation
- Classification
- Microbiology and pathogens
- Control systems

## Assessment percentage Exam: 100%

## **Progression Routes:**

Biology is a subject that can open doors for many opportunities at university and for future careers. It provides students with a range of transferable skills. It can lead directly to careers based on Science and Research, Medicine and Healthcare, Agriculture, Sports and Fitness, Engineering as well as the Police and Emergency Services.

## GCSE Subject Exam results minimum requirements:

- A Grade 6 in *Biology* **AND** a grade 6 in *Chemistry* **OR** *Physics* or alternatively, a grade 6-6 in *Combined Science* **AND** a grade 5 in *Mathematics* **AND** a grade 5 in *English Language*
- At least 6 other GCSE subjects with Grade 4s. These must include *English Language* and *Mathematics*.

## **Complementary learning:**

- Chemistry
- Mathematics
- Physical Education

## Student Quotes:

"Although A-level Biology is difficult at first, it gets easier once you learn the content properly. It is made to be really enjoyable! The teachers support you a lot."

"Biology has been interesting, and the lessons are creatively planned – not just standard and boring! It has been an enjoyable course – especially the practicals!"

## Year 12

#### **Topics covered:**

- Biological Molecules
- Cells and Viruses

- Classification
- Exchange and Transport
- Energy for Biological Processes

## Year 13

#### **Topics covered:**

- Microbiology and Pathogens
- Modern Genetics

- Origins of Genetic Variation
- Control Systems

• Ecosystems

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## Assessment

Is 100% Exam. There are three separate exams (9BIO/01, 9BIO/02 9BIO/03) & these are sat at the end of Year 13.

| Unit Code | Unit Title  | Guided Learning<br>Hours | Assessment Details  | Weighting |
|-----------|---|--------------------------|---|-----------|
| 9BIO/01   | Advanced Biochemistry,<br>Microbiology and Genetics | 100                      | Examination: 90-mark paper, 1hr 45min   | 30%       |
| 9BIO/02   | Advanced Physiology, Evolution<br>and Ecology       | 100                      | Examination: 90-mark paper, 1hr 45min   | 30%       |
| 9BIO/03   | General and Practical Principles in<br>Biology      | 130                      | Examination: 120-mark paper, 2hr<br>30min [synoptic exam]   | 40%       |
| 9BIO/04   | Science Practical endorsement                       | 20                       | Teacher assessment of practicals will lead to an<br>overall mark of Pass or Fail which will be reported on<br>the results certificate |           |

# **Additional information**

#### **Course specific equipment:**

A Lab coat is required for all practical lessons in Biology and Chemistry. (This can be bought locally from Workwear World Ltd., 441-445 Honeypot Lane, Stanmore. Approx. cost £16.)

## **Essential Reading Material:**

Edexcel AS/A Level Biology B Book 1 978-1447991144

Edexcel A Level Biology B Book 2978-1447991151

Note: Book 1 is needed for the 1st year of the course and Book 2 is needed for the 2nd year of the course

#### **Recommended resources:**

https://www.s-cool.co.uk/a-level/biology

https://www.thestudentroom.co.uk/

#### Enrichment:

Compulsory Field trip to study Ecology and sampling habitats. Approx. cost £100 for a residential trip. There are also other opportunities for attending non-compulsory courses of interest to Biology students throughout the year.