



# DRAYTON MANOR HIGH SCHOOL

## ADVANCED LEVEL COURSE 2022-2024

### Biology

#### Specification Edexcel A

#### Entry Requirements

Grade 7 in Biology GCSE or at least one Grade 7 in Combined Science (ie 76) and a Grade 5 in English Language and Maths

Or

Grade 6 in Biology GCSE with a 7 in another Science and a Grade 5 in English Language and Maths

#### What do I need to know or be able to do before taking this course?

You will need to have a sound knowledge of GCSE Biology and GCSE English and Mathematics. It would be beneficial if you were also taking other Science A Levels and/or Mathematics A Level to complement the course. Practical skills are vital for A Level Biology and you should be able to plan and carry out experiments efficiently. Communication is crucial in Biology so you will need to be able to articulate effectively, be able to research and critically think about problems. Above all, you should have a real interest in the subject and be willing to work hard.

#### What will I learn on this course?

- Essential knowledge and understanding in biology that will allow you the opportunity to study it further. This includes topics such as cystic fibrosis, cardio vascular disease, the genome, conservation, climate change, exercise and the brain.
- Skills needed for the use of this knowledge and understanding in new and changing situations where appropriate.
- An understanding of the link between theory and experiment.
- An appreciation of how biology has developed and used in present day society.
- Study how scientific models develop.
- How to carry out a biological investigation and interpret results from it.

#### How is the course structured?

Unit	Title	Weighting	Assessment Type
1	The natural environment and species survival	33.33%	Exam
2	Energy, exercise and co-ordination	33.33%	Exam
3	General and practical applications of Biology	33.33%	Exam

### **What skills will I develop by doing this course?**

This course will enable you to develop some key skills, which will be essential to you whatever you go on to do afterwards. The key skills you can develop during this course are

- How to effectively communicate by taking part in discussions about investigations or issues
- How to plan for an investigation, considering key variables, risk assessments and repeatability
  
- How to carry out calculations and analyse data collected in investigations
- How to carry out internet and academic journal based research
- How to use Excel for data analysis of practical data
- How to effectively use resources at your disposal to become an independent and reflective student
- How to interpret command words in exam questions
- How to read and interpret key scientific articles and information

### **What kind of student is this course suitable for?**

A level Biology is suitable for students who

- Have a real interest in, and enjoy biology at GCSE
- Want to find out about how things inside organisms such as plants and animals work and how they relate to one another
- Enjoy solving problems and applying their knowledge to new situations
- Want a grounding in a relevant worthwhile qualification of recognised value
- Enjoy carrying out investigations by the application of imaginative, logical thinking
- Want to use biology to support progress onto further studies or employment
- Are taking Advanced Levels in the other Sciences and/or Mathematics or other relevant courses such as Psychology and want to take another course that will support their studies

### **What could I go on to do at the end of my course?**

Students with A Level Biology have access to a wide range of possible career and higher education opportunities. These may include but are not limited to:

- Medicine
- Physiotherapy
- Conservation
- Veterinary science
- Pharmaceutical sciences
- Forensic science
- Botanist
- Agriculture
- Teacher
- Engineering