HOLLAND PARK SCHOOL SIXTH FORM | BIOLOGY

Examination Board

AQA

Topics/ Texts Studied

Year 12: Topic 1 (Biological Molecules); Topic 2 (Cells, Viruses and the Reproduction of Living Things); Topic 3 (Classification and Biodiversity); Topic 4 (Exchange and Transportation). Year 13: Topic 5 (Energy for Biological Processes); Topic 6 (Microbiology and Pathogens); Topic 7 (Modern Genetics); Topic 8 (Origins of Genetic Variation); Topic 9 (Control Systems) and Topic 10 (Ecosystems).

Coursework and Practical Elements

The assessment of practical skills is a compulsory requirement of the course of study for A level qualifications in biology, chemistry and physics. It will appear on all students' certificates as a separately reported result, alongside the overall grade for the qualification. Students will participate in 16 core practicals over the course of study in biology. Each practical will test core competencies and will contribute to passing the practical component on the qualification. The core practicals will also be examined in paper 3.

Recommended Pre-reading

Richard Dawkins:

The Selfish Gene

The Blind Watchmaker.

Unweaving the Rainbow

Climbing Mount Improbable

The Ancestor's Tale

Steve Jones:

Y: The Descent of Men

In the Blood: God, Genes and Destiny

Almost Like a Whale: The 'Origin of Species' Updated

The Language of the genes

Matt Ridley

Genome: The Autobiography of a Species in 23 Chapters

The Red Queen: Sex and the Evolution of Human Nature

The Language of Genes

Francis Crick: Discoverer of the Genetic Code

Nature Via Nurture: Genes, Experience and What Makes Us Human

James Watson:

DNA: The Secret of Life

The Double Helix: Personal Account of the Discovery of the Structure of DNA

Lewis Thomas:

The Lives of a Cell: Notes of a Biology Watcher.

The Medusa and the Snail: More Notes of a Biology Watcher Barry Gibb: The Rough Guide

to the

Brain (Rough Guides Reference Titles)

Charles Darwin: The origin of species

Armand Marie Leroi: Mutants: On the Form, Varieties and Errors of the Human Body

David S. Goodsell: The Machinery of Life

Ernst Mayr: This Is Biology: The Science of the Living World

George C. Williams: Plan and Purpose in Nature

Steve Pinker: The Language Instinct

Edward O Wilson: The Diversity of Life

Richard Leaky: The Origin of Humankind

Bill Bryson: A Short History of Nearly Everything

Oliver Sachs: The Man Who Mistook His Wife For A Hat

Daniel Chamovitz: What A Plant Knows

Where will this course take me?

Biology can lead to many practical, vocational or research-based careers including Medicine, research, scientific writing, education, ecology, microbiology, forensics, dentistry, pharmacy, veterinary medicine, toxicology, wildlife biology and civil service.

Why should you study this course?

Biology is the scientific study of life itself, and like this, it is a rich and diverse field of study. Like any living organism it is versatile and ever-changing as we delve into ever-increasing levels of detail. The scope of the subject ranges from examination on a cellular level to the appreciation of the way an entire ecosystem functions. For all its scientific rigour, it remains a discipline rooted in the physical reality of the world around us.

What are the entry requirements?

In addition to the general entry requirements, you will need a grade 77 or above in GCSE Combined Science or a grade 7 in GCSE Biology to study this course.