

The Biology Curriculum – Year by Year

Prior Learning from KS3

From year 7 and year 8 boys have a secure grounding in fundamental biology through studying a course aligned to the full KS3 National Curriculum. In addition they develop a sound understanding of how to think like a scientist, applying the scientific method and how to plan and carry out investigations. We use this prior knowledge and build upon these principles through our GCSE provision.

Year 9

All boys study the AQA Biology (8461) course. The following topics are studied during the year:

- Microscopy
- Cells, Organelles & Transport Processes
- Enzymes & Organisation
- Transport in Living Organisms
- Defense & Microbiology
- Lifestyle & Disease

These topics provide students with an introduction to many of the key themes in Biology which are applicable whether they are then selected to continue with Separate Sciences or move on to the Trilogy Combined Science course in year 10.

Year 10

Separate Sciences Route

Sets T1-T5 study the AQA Biology (8461) course and follow the Separate Sciences route. The following topics are studied during the year:

- Photosynthesis & Respiration
- Control of internal body conditions
- The nervous system & eye
- Hormones in plants & animals
- Genetic inheritance

These topics build on the content studied in year 9 and include some of the more challenging Separate Science only material.

Combined Science Route

Sets C1-C3 study the AQA Trilogy (8464) course. The following topics are studied during the year:

- Photosynthesis & Respiration
- Control of internal body conditions
- The nervous system & eye
- Hormones in plants & animals
- Genetic inheritance

These topics build on the content studied in year 9 with the slightly reduced volume of content on this course allowing more opportunities for consolidation of learning and practise of key principles.

Year 11

Separate Sciences Route

Sets T1-T5 study the AQA Biology (8461) course and follow the Separate Sciences route. The following topics are studied during the year:

- Gene technologies
- Classification and ecology
- Nutrient cycles
- Human effects on the environment
- Industrial agriculture

These topics build on the content studied in year 9 and year 10, the year 11 work contains many of the more conceptually demanding aspects of the course. A generous amount of time is provided for guided revision to allow thorough consolidation of the course material prior to GCSE examinations.

Combined Science Route

Sets C1-C3 study the AQA Trilogy (8464) course. The following topics are studied during the year:

- Gene technologies
- Classification and ecology
- Nutrient cycles
- Human effects on the environment
- Industrial agriculture

These topics build on the content studied in year 9 with the slightly reduced volume of content. These topics build on the content studied in year 9 and year 10, the year 11 work contains many of the more conceptually demanding aspects of the course. A generous amount of time is provided for guided revision to allow thorough consolidation of the course material prior to GCSE examinations.

Lower Sixth

Those who choose to study Biology to A level study the AQA specification split across two teachers. During this year they cover the following topics:

- Cells
- Biological molecules
- Immunity
- Transport processes
- Mass transport
- Digestion
- Classification

Of course they also carry out the exam board's core practical work and are assessed on this towards the practical endorsement element of the course.

Upper Sixth

For the last time in 2019-2020 we are following the Edexcel Biology B specification and are changing to AQA after this point. During this year the boys cover the following topics:

- Ecology
- Respiration & photosynthesis
- Modern genetics
- Microbiology
- Nerves and control
- Origins of genetic variation

Of course they also carry out the exam board's core practical work and are assessed on this towards the practical endorsement element of the course.