



Overview

Students will build on their knowledge gained in year 7-10 to develop and deepen their understanding of all biological concepts and begin to link them together. For example, previous work on mitosis leads onto more detailed work on meiosis. Previous work on cells and chromosomes leads onto more detailed work on Genetics and DNA. Previous work on transport in cells leads onto kidney function.



Term 1

Students will start by revisiting the concepts covered in year 10 about body systems. This then leads onto homeostasis and the nervous system, eye and brain. Students will investigate the effect of caffeine and distractions on reaction times. From the nervous system, we then look at how the endocrine system works. We look in detail about control of blood sugar, diabetes and control of water by the kidneys. Plant hormones are studied, including investigation the effect of auxins on plant growth.

Year 11

Biology



Term 3

Students will continue to deepen their understanding of all biological concepts. We will recap all 10 required practicals and ensure higher level skills such as calculations, standard form, using units such as μm , mm, cm and m, graph drawing and graph analysis. Students will have the opportunity to revise, complete pass papers and then sit their GCSE examinations.



Term 2

Students will continue to build on the knowledge they have gained so far about cells and reproduction during the Inheritance, Genetics and Evolution topic. We look in detail at DNA structure and function, how different disorders are inherited and we compare mitosis to meiosis. From this we develop our understanding of evolution, with a particular focus on Charles Darwin. Students will then look at how technology is speeding up and altering the process of evolution with selective breeding, cloning and genetic engineering.