**A level Biology**

**Overview**

This course is designed to give students the opportunity to explore different branches of Biology and develop investigative skills valued by employers and universities. Students will be engaged by cutting edge content which is relevant to real world experiences and inspire them to pursue further study in courses like biological sciences and medicine.

Biology is an experimental subject that is moving forwards rapidly thanks to modern day technological advances. Students are provided with numerous opportunities to link theory with reality through practical work which doesn’t contribute to their overall grade but is essential to completing the course. We follow the AQA exam route and all assessments are written exams which are completed at the end of Year 13.

A level Biology is a challenging course and being successful over the two years will take a large commitment of time and effort but may be the course for you whether you are indulging your interests in the natural world or pursuing your aspirations to become a neurosurgeon.

**The course covers the following major units:**

Biological molecules

Cells

Organisms exchange substances with their environment

Genetic information, variation and relationships between organisms

Energy transfers in and between organisms

Organisms respond to changes in their internal and external environments

Genetics, populations, evolution and ecosystems

The control of gene expression

**Whilst there will be some specific ‘bridging work’ set on the school website before the end of term, developing an understanding of the following prior to this would be useful:**

* Cellular structure and the function of different organelles – be able to identify and define all structures within ‘typical’ cells.
* Respiration and Photosynthesis – recall the equations and be able to explain the importance of these processes.
* Genetics – be able to use the key words associated with gene inheritance and Punnett squares and explain the outcomes of different genetic crosses.
* Homeostasis – Know the main components of the nervous and endocrine systems and be able to compare the two systems.
* Food tests – You should be confident describing the different tests to identify sugars, proteins, fats and starch.
* Evolution – Be familiar with the work of Charles Darwin, Jean-Baptiste Lamarck and Alfred Russel Wallace

**Save your work in a portfolio that can be incorporated into your subject folder if/once you decide to commence this course.**