



Hampton Court House

Curriculum Outline 2020/21 – Year 12 Biology (HLJ, ANH)

Autumn 2020

Principal Text: *AQA AS Biology - Collins*

This term, the class will learn the biochemistry units, which are biological molecules, proteins and enzymes.

They will also build on prior knowledge on cells and cell growth and learn about sub-cellular structures, the cell cycle and the immune system.

Assessment of students' progress will be through a mixture of short quizzes in lessons and homework exercises, alongside lesson-to-lesson AfL and more formal mock examinations.

Emphasis will be placed on exam technique, through practice of past AQA AS level papers.

Links with fundamental values
Democracy is considered during scientific debates, in particular when we consider ethics. Non-communicable diseases allow students to think about individual liberty and communicable diseases about mutual respect. Cell division and biological molecules link to the rule of law.

Spring 2021

Principal Text: *AQA AS Biology - Collins*

The students will complete biomolecules then look at DNA and protein synthesis.

They will also delve further into mass transport systems, genetic diversity and taxonomy.

Social, moral, spiritual and cultural content
Spiritual and moral aspects of biology are approached through discussion of genetics and variation. Communicable and non-communicable diseases link to moral, cultural and social ideas. The study of key scientific discoveries is cultural.

Opportunities to independently extend learning
Reading around the course using materials such as Biological Science Review and New Scientist magazine.

Extending understanding using undergraduate textbooks such as *The Cell* and *Organics*.

Summer 2021

Principal Text: *AQA AS Biology - Collins*

With the curriculum taught, the focus will move to revision of key topics and examination preparation for the summer examinations.

In the second half of the term the A2 course will commence with the topics of photosynthesis, respiration and sampling of populations.

Requesting past papers from other syllabuses to experience a wider variety of question styles.

Regular consolidation of notes to check understanding.