

## Science Curriculum

### Rationale for topic choices in each year group:

Y11 pupils receive 5 hours of science teaching a week. They study AQA GCSE Biology. Science is a set of ideas about the material world. Included in this GCSE course are all the parts of what good science is at GCSE level: whether it be investigating, observing, experimenting or testing out ideas and thinking about them.

The way scientific ideas flow through the specifications will support students in building a deep understanding of science. This will involve talking about, reading and writing about science plus the actual doing, as well as representing science in its many forms both mathematically and visually through models.

These qualifications encourage the development of knowledge and understanding in science through opportunities for working scientifically.

### Long Term Plan:

Year group	Autumn term	Spring term	Summer term	Schemes of work and further information	How are pupils assessed?
11	<p><b>Bioenergetics</b> Photosynthesis Respiration Metabolism Homeostasis and response The nervous system Animal and Plant hormones</p> <p><b>Inheritance and evolution</b> DNA and reproduction Genetics - inherited diseases, sex determination Evolution and classification</p> <p><b>Plus required practical's</b></p>	<p><b>Inheritance and evolution</b> Genetics - variation Evolution - selective breeding, genetic engineering, cloning, the theory of evolution, speciation, evidence of evolution. Fossils and extinction.</p> <p><b>Classification</b> The classification of living organisms</p> <p><b>Ecology</b> Organisms and their environment Human Impacts on the environment Biomass, food and biotechnology</p> <p><b>Plus required practical's</b></p>	<p><b>Revision Paper 1</b></p> <p><b>Revision Paper 2</b></p> <p><b>Exam dates (Provisional)</b></p> <p><b>Biology</b> <b>Paper 1 14<sup>th</sup> May pm</b> <b>Paper 2 7<sup>th</sup> June am</b></p>	<p><a href="http://filestore.aqa.org.uk/resources/science/specifications/AQA-8464-SP-2016.PDF">http://filestore.aqa.org.uk/resources/science/specifications/AQA-8464-SP-2016.PDF</a></p> <p><a href="http://filestore.aqa.org.uk/resources/science/AQA-SCIENCE-GCSE-COMMAND-WORDS.PDF">http://filestore.aqa.org.uk/resources/science/AQA-SCIENCE-GCSE-COMMAND-WORDS.PDF</a></p> <p><a href="http://filestore.aqa.org.uk/resources/science/AQA-SCIENCE-GCSE-SUBJECT-VOCAB.PDF">http://filestore.aqa.org.uk/resources/science/AQA-SCIENCE-GCSE-SUBJECT-VOCAB.PDF</a></p> <p><a href="http://www.aqa.org.uk/resources/science/gcse/teach/maths-skills-in-GCSE-sciences">http://www.aqa.org.uk/resources/science/gcse/teach/maths-skills-in-GCSE-sciences</a></p> <p><a href="http://www.aqa.org.uk/resources/science/gcse/trilogy/teach/schemes-of-work">http://www.aqa.org.uk/resources/science/gcse/trilogy/teach/schemes-of-work</a></p>	<p>Pupils work is assessed against 3 assessment objectives (AO).</p> <p>It is a linear specification, with tiered exams to facilitate all pupils in realising their potential. There are two equally weighted papers. Each of the papers will assess knowledge and understanding from distinct topic areas</p> <p>Both papers are 1 hour 45 minutes and they comprise of multiple choice, structured, closed short answer and open responses.</p>

