



Eastbrook School

KS5 Curriculum Summary – Biology

Topics Yr 12	Topics Year 13	PAG Topics
<p>Module 1 -Development of practical skills in biology</p> <p>Module 2 -Foundations in biology</p> <p>Module 3 –Exchange and transport</p> <p>Module 4 -Biodiversity, evolution and disease</p> <p>Assessment at the end of each topic. Mock Exam at the end of Term.</p>	<p>Module 5 -Communication, homeostasis and energy</p> <p>Module 6 -Genetics and ecosystems</p> <p>Assessment at the end of each topic. Mock Exam at the end of Term.</p>	<p>1 Microscopy Preparing Cells & Calibrating an Eyepiece Graticule</p> <p>2 Dissection Heart Dissection</p> <p>3 Sampling Techniques Calculating Species Diversity</p> <p>4 Enzyme Controlled Reactions Effect of Substrate Concentration on Rate of Enzyme-Controlled Reaction</p> <p>5 Colorimeter or Potometer The Effect of Temperature on Membrane Permeability</p> <p>6 Chromatography or Electrophoresis Identifying Amino Acids using Paper Chromatography</p> <p>7 Microbial Technique The Effect of Antibiotics on Bacterial Growth</p> <p>8 Transport In & Out of Cells Effect of Solute Concentration on Osmosis in Potato Cells</p> <p>9 Qualitative Testing Determining Glucose Concentration</p> <p>10 Investigating using a Data Logger or Computer Modelling Investigating DNA Structure using RasMol</p> <p>11 Research into the Measurement of Plant or Animal Responses Investigation into the Effect of Exercise on Pulse Rate</p>
<p>Maths skills: A minimum of 20% of the marks across all three papers is awarded for mathematics at level 2 and above. Maths operations; positive and negative numbers; Standard forms; Handling data; Ratios; Maths equations and expressions; Chemical equations; calculations using gas volumes; Calculations using solutions; percentage yields and atom economy; Graphs – experimental data; Maxwell-Boltzmann distribution and reaction profiles; Mass and infrared spectra; Geometry;</p> <p>Working scientifically: Science Practical Endorsement – The practical skills is assessed by teachers throughout the course with using the core practical and other topic related practical activities. This does not count towards the A level grade but result (pass or fail) will be reported on A level certificate.</p>		
<p>Useful websites</p>		
<p>www.bbc.com/bitesize https://www.kerboodle.com/ https://ocr.org.uk/qualifications/past-papers https://www.chemguide.co.uk www.Scool.co.uk www.Physicsandmathstutor.co.uk www. Dynamic learning.co.uk</p>		
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Other ways to support learning

Independent Learning – preparation and past paper practice

Text Book – OCR As/A level Biology,1 &2 Sue Hocking

OCR A level Biology Ann Fullick

OCR A level Biology Book 1& 2 Richard Fosberry

CGP OCR Revision guide.

A Level Biology for you. Gareth Williams

The OCR syllabus can be downloaded from: Year 12 <https://gryphonscience.com/a-level-biology-year-1/>

Year 13 <https://gryphonscience.com/a-level-biology-year-2/>

A level Exam Papers

Paper1- Biological processes

1hr 15 mins (37%)

Paper 2- Biological Diversity

2hrs 15 mins (37%)

Paper3- Unified biology

1 hr 30mins(36%)

Practical endorsement in biology
(non exam assessed)- reported seperately