

Biology

Subject Title	Biology
Exam board	AQA
Specification code	7401 (AS) 7402 (A level)
Exam details	AS: 2 papers, each 1.5 hrs, A level (3 X 2hr papers)
Setting arrangements	
Time allowed	12 x 50 minute lessons
Link to the Toolkit:	
Textbooks and revision guides	AQA Biology: A Level  0198351771
Homework information	One piece set weekly per teacher Exam style questions; Research; Assessment; Revision; and Retrieval practice

Term	Y12 Topics	Skills	Assessment
1	Cell structure Biological Molecules Gas Exchange in humans and other animals	Following practical instructions independently, competently and safely Microscopy Biochemical tests for food groups Use of colorimetry Fish dissection Enzyme kinetics practical Maths skills 1	Topic tests for all three units. End of term interims assessment. Enzyme investigation required practical
2	Cell division Cell membrane structure and transport	Introduction to essay planning	Topic tests for 2 units.

	Circulatory system and Haemoglobin	Use of eyepiece graticules with microscopes Dilution and laboratory practical skills using burettes and pipettes	3 required practicals on mitosis, osmosis and a heart dissection
3	Immunity DNA, RNA and Protein synthesis Water Transport in plants Heart disease	Planning a controlled experiment including selecting lab equipment and controlling significant variables  Risk Assessment  Developing Essay planning skills  Maths skills 2	Internal January Exam  Topic tests for 2 units  Required practical investigation into Transport across cell membranes
4	Biodiversity, Classification and Uses of technology to assess Genetic diversity  Glucose transport In plants	Aseptic and microbiological practical skills  Introduction to some statistical ideas and development of maths skills 3	Topic tests for 3 units  Required practical on Aseptic technique
5	Consolidation and revision preparation for internal and external exams	Revision and exam techniques	Internal Exams
6	Introduction to A Level (Y13) course including:  Ecology, Succession, Conservation and Nutrient cycling  Energy transfer through ecosystems  Residential Field Trip	Ecological Investigation Techniques  Statistical Analysis and comparison skills  Using software in the analysis and processing of statistical data	Topic tests for 2 units  2 Required practicals on Ecology and Animal behaviour.
Links to websites and revision materials:			

Term	Y13 Topics	Skills	Assessment
1	Consolidation of Ecology topics Photosynthesis Respiration 1 Genetics	Lab Chromatography  Development of A Level Biology Essay writing skills  Application of statistical tests to Genetic crosses	Topic tests on 2 units  2 Required practicals on Photosynthesis
2	Respiration 2 Homeostasis principles Glucose regulation and diabetes Osmoregulation and the kidneys Populations and evolution	Advanced research and referencing skills  Titration through colorimetry	Topic tests on 2 units  2 Required practicals on Respiration and Glucose titration
3	Animal Nervous system Mutation, Gene expression, Totipotency and Epigenetics	Use of Spearman's rank and T test statistical comparisons	Internal Y13 exams  Topic tests on 2 units
4	DNA – Gene Technology including In vivo cloning and PCR Gene probes, medical diagnosis and gene therapy Synapse structure and action Muscle structure and contraction	Analysis of exam question structure.  Consolidation of exam essay planning and writing	Topic tests on 2 units
5	Consolidation and revision preparation for external A Level exams		Scrutiny of student Practical Laboratory handbook compulsory practical endorsement.  External Exams
6	On Exam Study leave		External Exams
Links to websites and revision materials:			

