

AQA GCSE Biology – Course outline

Experiment = EX Lecture = L Assessment = A

Code	Name	Activity
Section 1 - Cell Biology		
Module 1 - Cell Structure and Division		
1.1.1	Eukaryotes and Prokaryotes	L
1.1.2	Cell Specialisation and Differentiation	L
1.1a	Cells	A
1.2	Microscopy	EX
1.2a	Microscopy	A
1.2b	Microscopy	A
1.3.1	Chromosomes, Mitosis and the Cell Cycle	L
1.3.2	Stem Cells	L
1.3a	Cell Division and Stem cells	A
Module 2 - Culturing Microorganisms		
2.1	Investigating Antiseptics and Antibiotics	EX
2.1a	Investigating Antiseptics and Antibiotics	A
2.1b	Investigating Antiseptics and Antibiotics	A
2.1c	Investigating Antiseptics and Antibiotics	A
Module 3 - Transport in Cells		
3.1.1	Diffusion	L
3.1.2	Rate of Diffusion	L
3.1.3	Osmosis	L
3.1.4	Active Transport	L
3.1a	Transport in Cells	A
3.2.1	Investigating Osmosis (Doing the Experiment)	EX
3.2.2	Investigating osmosis (Analysing the Results)	EX
3.2a	Investigating Osmosis	A
3.2b	Investigating Osmosis	A
Section 2 - Organisation		
Module 1 - Principles of Organisation and the Digestive System		
1.1	Principles of Organisation	L

1.1a	Principles of Organisation	A
1.2.1	Enzymes	L
1.2.2	The Human Digestive System	L
1.2a	Digestion	A
1.3.1	The Effect of pH on Enzymes (Theory and Method)	EX
1.3.2	The Effect of pH on Enzymes (Doing the Experiment)	EX
1.3.3	The Effect of pH on Enzymes (Analysing the Results)	EX
1.3a	The Effect of pH on Enzymes	A
1.3b	The Effect of pH on Enzymes	A
1.4	Food Tests	EX
1.4a	Food Tests	A
1.4b	Food Tests	A

Module 2 - The Circulatory System

2.1	The Heart and Blood Vessels	L
2.1a	The Heart and Blood Vessels	A
2.2	Blood	L
2.2a	Blood	A
2.3	Cardiovascular Disease	L
2.3a	Cardiovascular Disease	A

Module 3 - Health Issues

3.1	Health Issues	L
3.1a	Health Issues	A
3.2	Lifestyle and Non-Communicable Disease	L
3.2a	Lifestyle and Non-Communicable Disease	A
3.2b	Lifestyle and Non-Communicable Disease	A
3.3	Cancer	L
3.3a	Cancer	A

Module 4 - Plant Tissues, Organs and Systems

4.1	Plant Tissues	L
4.1a	Plant Tissues	A
4.2	Transpiration and Translocation	L
4.2a	Transpiration and Translocation	A
4.3	Rate of Transpiration	L
4.3a	Rate of Transpiration	A

Section 3 - Infection and Response

Module 1 - Communicable Diseases

1.1	Communicable Diseases	L
1.1a	Communicable Diseases	A
1.1b	Communicable Diseases	A
1.2	Causes of Disease	L
1.2a	Causes of Disease	A

Module 2 - Defence Against Disease

2.1	Human Defence System	L
2.1a	Human Defence System	A
2.2	Vaccination	L
2.2a	Vaccination	A
2.2b	Vaccination	A
2.3	Antibiotics and Painkillers	L
2.3a	Antibiotics and Painkillers	A
2.4	The Development of New Drugs	L
2.4a	The Development of New Drugs	A
2.4b	The Development of New Drugs	A

Module 3 - Monoclonal Antibodies

3.1	Producing Monoclonal Antibodies	L
3.1a	Producing Monoclonal Antibodies	A
3.2	Uses of Monoclonal Antibodies	L
3.2a	Uses of Monoclonal Antibodies	A

Module 4 - Plant Diseases

4.1	Detection and Identification of Plant Diseases	L
4.1	Detection and Identification of Plant Diseases	A
4.2	Plant Defence Responses	L
4.2	Plant Defence Responses	A

Section 4 - Bioenergetics

Module 1 - Photosynthesis

1.1.1	The Photosynthesis Reaction	L
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1.1.2	The Rate of Photosynthesis	L
1.1a	Photosynthesis	A
1.2.1	Graphs of Multiple Limiting Factors	L
1.2.2	Inverse Square Law	L
1.2.3	Enhancing Greenhouse Conditions	L
1.2a	Advanced Rate of Photosynthesis	A
1.3.1	Photosynthesis and Light Intensity (Doing the Experiment)	EX
1.3.2	Photosynthesis and Light Intensity (Analysing the Results)	EX
1.3a	Photosynthesis and Light Intensity	A
1.3b	Photosynthesis and Light Intensity	A
1.4	Uses of Glucose from Photosynthesis	L
1.4a	Uses of Glucose from Photosynthesis	A

Module 2 - Respiration

2.1	Aerobic and Anaerobic Respiration	L
2.1a	Aerobic and Anaerobic Respiration	A
2.2.1	Response to Exercise	L
2.2.2	Metabolism	L
2.2a	Exercise and Metabolism	A
2.3	Oxygen Debt	L
2.3a	Oxygen Debt	A

Section 5 - Homeostasis and Response

Module 1 - Homeostasis and Hormones

1.1	Homeostasis	L
1.1a	Homeostasis	A
1.2	Thermoregulation	L
1.2a	Thermoregulation	A
1.3	Human Endocrine System	L
1.3a	Human Endocrine System	A
1.4.1	Blood Glucose Concentration	L
1.4.2	Diabetes	L
1.4a	Blood Glucose and Diabetes	A
1.5	Glucagon	L
1.5a	Glucagon	A
1.6.1	Osmoregulation	L
1.6.2	The Kidneys	L

1.6.3	Treating Kidney Failure	L
1.6a	The Kidneys and Water Balance	A
1.7	ADH	L
1.7a	ADH	A
1.8	Adrenaline and Thyroxine	L
1.8a	Adrenaline and Thyroxine	A

Module 2 - The Nervous System and The Eye

2.1.1	The Nervous System	L
2.1.2	Reflex Arcs	L
2.1a	The Nervous System	A
2.2	Human Reaction Time	EX
2.2a	Human Reaction Time	A
2.2b	Human Reaction Time	A
2.3	The Structure of the Brain	L
2.3a	The Structure of the Brain	A
2.4	Accessing and Treating the Brain	L
2.4a	Accessing and Treating the Brain	A
2.5.1	Eye Structure and Adapting to Light	L
2.5.2	Accommodation and Eye Defects	L
2.5a	The Eye	A

Module 3 - Hormones in Human Reproduction

3.1	Reproductive Hormones	L
3.1a	Reproductive Hormones	A
3.2	Hormone Interactions	L
3.2a	Hormone Interactions	A
3.3	Contraception	L
3.3a	Contraception	A
3.4	Infertility Treatment	L
3.4a	Infertility Treatment	A

Module 4 - Plant Hormones

4.1	Control and Coordination in Plants	L
4.1a	Control and Coordination in Plants	A
4.2	Light Intensity and Plant Growth	EX
4.2a	Light Intensity and Plant Growth	A

4.2b	Light Intensity and Plant Growth	A
4.3	Uses of Plant Hormones	L
4.3a	Uses of Plant Hormones	A

Section 6 - Inheritance, Variation and Evolution

Module 1 - Reproduction

1.1	Sexual and Asexual Reproduction	L
1.1a	Sexual and Asexual Reproduction	A
1.2	Evaluating Sexual and Asexual Reproduction	L
1.2a	Evaluating Sexual and Asexual Reproduction	A
1.3	Meiosis	L
1.3a	Meiosis	A

Module 2 - DNA and the Genome

2.1	DNA and the Genome	L
2.1a	DNA and the Genome	A
2.2	DNA Structure	L
2.2a	DNA Structure	A
2.3.1	Protein Synthesis	L
2.3.2	Mutations	L
2.3a	Protein Synthesis and Mutations	A

Module 3 - Genetic Inheritance

3.1.1	Alleles	L
3.1.2	Genetic Diagrams	L
3.1.3	Sex Determination	L
3.1a	Genetics	A
3.2	Inherited Disorders	L
3.2a	Inherited Disorders	A

Module 4 - Variation and Evolution

4.1	Variation	L
4.1a	Variation	A
4.2	Evolution	L
4.2a	Evolution	A
4.3.1	Selective Breeding	L
4.3.2	Genetic Engineering	L

4.3a	Selective Breeding and Genetic Engineering	A
4.4	The Process of Genetic Engineering	L
4.4a	The Process of Genetic Engineering	A
4.5	Cloning	L
4.5a	Cloning	A

Module 5 - Understanding Evolution and Genetics

5.1	Mendel's Work	L
5.1a	Mendel's Work	A
5.2.1	Darwin and Wallace	L
5.2.2	Speciation	L
5.2a	Developing the Theory of Evolution	A
5.3.1	Fossils	L
5.3.2	Resistant Bacteria	L
5.3a	Evidence for Evolution	A
5.4	Classification	L
5.4a	Classification	A

Section 7 - Ecology

Module 1 - Adaptations, Interdependence and Competition

1.1.1	Communities	L
1.1.2	Abiotic Factors	L
1.1.3	Biotic Factors	L
1.1a	Ecosystems	A
1.2	Adaptations	L
1.2a	Adaptations	A

Module 2 - Organisation of an Ecosystem

2.1.1	Measuring a Population	EX
2.1.2	The Effect of Trees on a Daisy Population	EX
2.1a	Measuring the Sizes of Populations	A
2.1b	Measuring the Sizes of Populations	A
2.2	Feeding Relationships	L
2.2a	Feeding Relationships	A
2.3.1	Trophic Levels	L
2.3.2	Pyramids of Biomass	L
2.3.3	The Transfer of Biomass	L

2.3a	Biomass	A
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Module 3 - Cycles and Biodiversity

3.1.1	The Carbon Cycle	L
3.1.2	The Water Cycle	L
3.1a	Carbon and Water Cycles	A
3.2	Decomposition	L
3.2a	Decomposition	A
3.3	Temperature and the Rate of Decay of Milk	EX
3.3a	Temperature and the Rate of Decay of Milk	A
3.3b	Temperature and the Rate of Decay of Milk	A
3.4	Impact of Environmental Change	L
3.4a	Impact of Environmental Change	A
3.5.1	Biodiversity	L
3.5.2	Waste Management and Land Use	L
3.5.3	Destruction of Habitats	L
3.5.4	Global Warming	L
3.5.5	Human Impacts on Biodiversity	L
3.5a	Human interactions with ecosystems	A
3.6.1	Food Security	L
3.6.2	Farming and Fishing	L
3.6.3	Biotechnology	L
3.6a	Food Production	A