

AQA GCSE Biology: Higher tier

Advance Information of Assessed Content 2022

Link to specification:

[GCSE Biology Specification](#)

Link to advance information document:

[AQA Advanced information - GCSE Biology](#)

Triple Biology Paper 1

These specification points will be the **major focus** of this paper.

Exam date: 17th May

All other specification points from B1, other those on the [next slide](#) that are not explicitly omitted, **may still be assessed** in multiple choice questions/linked to a previous answer, so cannot be completely ignored in your revision

Spec point	Concepts	CGP Biology revision guide pages	Bitesize	YouTube
4.1.1 Cell Structure	<ul style="list-style-type: none"> - Difference between prokaryotic and eukaryotic cells - Comparison of plant cells and animal cells - Function of organelles - Cell differentiation and specialised plant cells and animal cells 	16, 17, 22, 23, 30, 31	https://www.bbc.co.uk/bitesize/guides/z84jtv4/revision/1	Prokaryotic and eukaryotic cells Animal cells Plant cells
Required practical 1: use of light microscope to observe cells	<ul style="list-style-type: none"> - How to prepare slides -How to use the microscope to improve field of view, clarify, change magnification - Microscopy calculations - Unit conversions (mm, micrometres etc) 	18, 19, 20	https://www.bbc.co.uk/bitesize/guides/z84jtv4/revision/1	Required practical - Use of microscopes Microscopy Orders of magnitude
4.1.3 Transport in cells	<ul style="list-style-type: none"> - Diffusion - Factors affecting the rate of diffusion - Osmosis - Active transport 	34, 35, 36, 37, 38, 39, 40, 41	https://www.bbc.co.uk/bitesize/guides/zs63tv4/revision/4	Osmosis Diffusion Active transport
Required practical 3: Investigate the effect of a range of concentrations of salt solution on the mass of plant tissue	<ul style="list-style-type: none"> - Calculate rate of water uptake - Identify independent, dependent and control variables - Calculate percentage change in mass - Interpret graph to find salt/ sugar concentration in potato 	36, 5	https://www.bbc.co.uk/bitesize/guides/zs63tv4/revision/5	Required practical link

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4.2.2 Animal tissues, organs and organ systems	<ul style="list-style-type: none"> - Functions of tissues and organs in the digestive system -Digestive enzymes -Functions of tissues and organs in the circulatory system -Pathway of blood through the heart -adaptations of components of the blood -risk factors of non-communicable diseases 	47, 48, 49, 50, 51, 56, 57, 58, 59, 63, 64, 65, 67, 68, 69, 70	Digestion Animal transport systems	https://www.youtube.com/watch?v=4ui4oSHHnzA https://www.youtube.com/watch?v=VLK2wANjQm0 https://www.youtube.com/watch?v=bpYaKM2hVFY
Required practical 4: Use qualitative reagents to test for a range of carbohydrates, lipids and proteins	<ul style="list-style-type: none"> - Reagents used to test for sugars, starch, proteins and lipids - Positive result for each food test - Conditions required to carry out food test 	52, 53	Food tests	Food tests – video summary Food tests - detailed methods
4.2.3 Plant tissues, organs and systems	<ul style="list-style-type: none"> - cross section of a leaf - functions and adaptations of xylem and phloem - transpiration - translocation 	73, 74, 75, 76, 77	Plant organisation	Plant organisation Transpiration Plant cell specialisations

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Spec point	Concepts	CGP revision guide pages	Bitesize	YouTube
4.3.1 Communicable Diseases	-definition and examples of pathogen -how viruses and bacteria make us ill -examples of diseases caused by each type of pathogen -human defence mechanisms -what happens in a vaccine -comparing antibody production after active and passive immunity	81, 82, 83, 84, 87, 88	https://www.bbc.co.uk/bitesize/guides/zs4mk2p/revision/1	https://www.youtube.com/watch?v=rAJGnS_ktk4
4.3.2 Monoclonal antibodies	- Describe what a monoclonal antibody is - Describe how monoclonal antibodies are produced - Describe how monoclonal antibodies can be used	95, 96, 97	https://www.bbc.co.uk/bitesize/guides/zt8t3k7/revision/1	Monoclonal antibodies Uses of monoclonal antibodies

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Spec point	CGP Biology Revision Guide Pages
4.2.2.3 Blood	60
4.2.2.7 Cancer	71
4.3.1.8 Antibiotics and painkillers	90
4.3.1.9 Discovery and the development of drugs	92
4.4.2.2 Response to exercise	113

Triple Biology Paper 2

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Exam date: 15th June

All other specification points from B2, other those on the [next slide](#) that are not explicitly omitted, **may still be assessed** in multiple choice questions/linked to a previous answer, so cannot be completely ignored in your revision

Spec point	Concepts	CGP revision guide pages	Bitesize	YouTube
4.5.2 The human nervous system	<ul style="list-style-type: none"> - Function of the NS - Control of body temperature - Response to high/ low temperatures 	126-127	Controlling body temperature.	https://www.youtube.com/watch?v=WoMPARSQPZw
4.5.3 Hormonal control in humans	<ul style="list-style-type: none"> - The endocrine system - Function of hormones within the endocrine system - Control of blood glucose - Diabetes - Kidneys and the role of ADH 	130, 131, 132, 133, 135, 136,	https://www.bbc.co.uk/bitesize/guides/zttqfcw/revision/1	Endocrine system
4.5.4 Plant hormones	<ul style="list-style-type: none"> - Site of auxin production - Role of auxin in producing phototropism / gravitropism 	146, 147,	https://www.bbc.co.uk/bitesize/guides/zc6cqhv/revision/1	https://www.youtube.com/watch?v=Bf5WKEMB5o
Required practical 8 – Investigate the effect of light on the growth of newly germinated seedlings	<ul style="list-style-type: none"> - identify independent, dependent and control variables - Describe how variables can be controlled 	147	https://www.bbc.co.uk/bitesize/guides/zc6cqhv/revision/3	https://www.youtube.com/watch?v=fEo21LbnJJM

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Spec point	Concepts	CGP revision guide pages	Bitesize	YouTube
4.6.1 Reproduction	<ul style="list-style-type: none"> - Sexual and asexual reproduction - Gametes - Meiosis 	151, 152, 153, 154, 155 157, 158, 164, 165, 166, 167, 168, 169	https://www.bbc.co.uk/bitesize/guides/z9pkmsg/revision/1	https://www.youtube.com/watch?v=Fh9b6a-3DLQ
4.7.2 Organisation of an ecosystem	<ul style="list-style-type: none"> -interpret food chains and webs -identify producers, consumers, predators and prey from food chains and webs -describe the carbon and water cycles 	194, 195, 198, 203, 204, 207, 208	https://www.bbc.co.uk/bitesize/guides/zqskv9q/revision/1	https://www.youtube.com/watch?v=dRFQ8rZCK6Q https://www.youtube.com/watch?v=urzpnjwazV0
Required Practical 7: Measure the population size of a common species in a habitat. Use sampling techniques to investigate the effect of a factor on the distribution of this species	<ul style="list-style-type: none"> -Using transects and quadrats are used by ecologists to determine the distribution and abundance of species in an ecosystem. -Understand the terms mean, mode and median -Calculate arithmetic means 	200, 201	https://www.bbc.co.uk/bitesize/guides/zqskv9q/revision/3	https://www.youtube.com/watch?v=2MW6nwf80XM https://www.youtube.com/watch?v=RhMOCxXcDrQ https://www.youtube.com/watch?v=yLHz2Ea10Mg&t=2s

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Topic 5: Homeostasis and response	
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4.5.2.2 The brain	122
4.5.2.3 The eye	123
4.5.2.3 Hormones in human reproduction	139
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4.5.3.6 The use of hormones to treat infertility	141-153
4.5.3.7 Negative feedback	144
4.5.4.2 Uses of plant hormones	148
Topic 6: Inheritance, variation and evolution	
4.6.1.3 Advantages/ Disadvantages of sexual and asexual reproduction	159
4.6.1.8 Sex determination	161
4.6.2 Variation and evolution	174-178
4.6.3 The development of understanding of genetics and evolution	174-178
4.6.4 Classification of living organisms	190

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Topic 7: Ecology	
4.7.1.4 Adaptations	197
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4.7.3.4 Deforestation	216
4.7.4.1 Trophic levels	221
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4.7.5.3 Sustainable fisheries	226 top half
4.7.5.4 Role of biotechnology	227