

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	- 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	11, 14	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	- How to prepare slides -How to use the microscope to improve field of view, clarify, change magnification - Microscopy calculations - Unit conversions (mm, micrometres etc)	12-13	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	- Diffusion - Factors affecting the rate of diffusion - Osmosis - Active transport	20-22	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	- 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	21	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	- 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	28, 30, 31, 33, 34, 35, 37, 38 - 40	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	- Reagents used to test for sugars, starch, proteins and lipids - Positive result for each food test - Conditions required to carry out food test	32	Food tests	Food tests – video summary Food tests - detailed methods
4.2.3 Plant tissues, organs and systems	- cross section of a leaf - functions and adaptations of xylem and phloem - transpiration - translocation	42 - 44	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	46 – 50	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	53 – 54	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	36
4.2.2.7 Cancer	41
4.3.1.8 Antibiotics and painkillers	51
4.3.1.9 Discovery and the development of drugs	52
4.4.2.2 Response to exercise	63

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	- Function of the NS - Control of body temperature - Response to high/ low temperatures	72	Controlling body temperature.	https://www.youtube.com/watch?v=WoMPARSQPZw
4.5.3 Hormonal control in humans	- The endocrine system - Function of hormones within the endocrine system - Control of blood glucose - Diabetes - Kidneys and the role of ADH - Adrenaline and thyroxine	73 – 76, 80	https://www.bbc.co.uk/bitesize/guides/zttqfcw/revision/1	Endocrine system
4.5.4 Plant hormones	- Site of auxin production - Role of auxin in producing phototropism / gravitropism	81	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	- identify independent, dependent and control variables - Describe how variables can be controlled	81	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	- Sexual and asexual reproduction - Gametes - Meiosis	87-89	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	-interpret food chains and webs -identify producers, consumers, predators and prey from food chains and webs -describe the carbon and water cycles	86, 89-90	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	-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	110-111	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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Spec point	CGP Revision Guide Pages
Topic 5: Homeostasis and response	
4.5.2.1 Structure and function	66 – 68
4.5.2.2 The brain	69
4.5.2.3 The eye	70-71
4.5.2.3 Hormones in human reproduction	77- 79
4.5.3.5 Contraception	78
4.5.3.6 The use of hormones to treat infertility	78
4.5.3.7 Negative feedback	65
4.5.4.2 Uses of plant hormones	82
Topic 6: Inheritance, variation and evolution	
4.6.1.3 Advantages/ Disadvantages of sexual and asexual reproduction	89 (top half)
4.6.1.8 Sex determination	90
4.6.2 Variation and evolution	95-97
4.6.3 The development of understanding of genetics and evolution	94
4.6.4 Classification of living organisms	104

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Spec point	CGP Revision Guide Pages
Topic 7: Ecology	
4.7.1.4 Adaptations	108
4.7.2.4 Impact of environmental change	112
4.7.3.1 Biodiversity	116
4.7.3.4 Deforestation	118
4.7.4.1 Trophic levels	120
4.7.4.2 Pyramids of Biomass	121
4.7.5.3 Sustainable fisheries	123 (middle section)
4.7.5.4 Role of biotechnology	124