

# AQA GCSE Biology: Paper 1 Foundation tier

Advance Information of Assessed Content 2022

Link to specification:

[GCSE Biology Specification](#)

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

# Biology Paper 1

Spec point	Concepts	CGP Biology revision guide pages	Bitesize	YouTube
<b>4.1.1</b> Cell Structure	<ul style="list-style-type: none"> <li>- Difference between prokaryotic and eukaryotic cells</li> <li>- Comparison of plant cells and animal cells</li> <li>- Function of organelles</li> <li>- Cell differentiation and specialised plant cells and animal cells</li> </ul>	11, 14	<a href="https://www.bbc.co.uk/bitesize/guides/z84jtv4/revision/1">https://www.bbc.co.uk/bitesize/guides/z84jtv4/revision/1</a>	<a href="#">Prokaryotic and eukaryotic cells</a>  <a href="#">Animal cells</a>  <a href="#">Plant cells</a>
<b>Required practical 1:</b> use of light microscope to observe cells	<ul style="list-style-type: none"> <li>- How to prepare slides</li> <li>-How to use the microscope to improve field of view, clarify, change magnification</li> <li>- Microscopy calculations</li> <li>- Unit conversions (mm, micrometres etc)</li> </ul>	12-13	<a href="https://www.bbc.co.uk/bitesize/guides/z84jtv4/revision/1">https://www.bbc.co.uk/bitesize/guides/z84jtv4/revision/1</a>	<a href="#">Required practical - Use of microscopes</a>  <a href="#">Microscopy</a>  <a href="#">Orders of magnitude</a>
<b>4.1.3</b> Transport in cells	<ul style="list-style-type: none"> <li>- Diffusion</li> <li>- Factors affecting the rate of diffusion</li> <li>- Osmosis</li> <li>- Active transport</li> </ul>	20-22	<a href="https://www.bbc.co.uk/bitesize/guides/zs63tv4/revision/4">https://www.bbc.co.uk/bitesize/guides/zs63tv4/revision/4</a>	<a href="#">Osmosis</a>  <a href="#">Diffusion</a>  <a href="#">Active transport</a>
<b>Required practical 3:</b> Investigate the effect of a range of concentrations of salt solution on the mass of plant tissue	<ul style="list-style-type: none"> <li>- Calculate rate of water uptake</li> <li>- Identify independent, dependent and control variables</li> <li>- Calculate percentage change in mass</li> <li>- Interpret graph to find salt/ sugar concentration in potato</li> </ul>	21	<a href="https://www.bbc.co.uk/bitesize/guides/zs63tv4/revision/5">https://www.bbc.co.uk/bitesize/guides/zs63tv4/revision/5</a>	<a href="#">Required practical link</a>

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# Biology Paper 1

Spec point	Concepts	CGP revision guide pages	Bitesize	YouTube
<b>4.2.2</b> Animal tissues, organs and organ systems	<ul style="list-style-type: none"> <li>- Functions of tissues and organs in the digestive system</li> <li>-Digestive enzymes</li> <li>-Functions of tissues and organs in the circulatory system</li> <li>-Pathway of blood through the heart</li> <li>-adaptations of components of the blood</li> <li>-risk factors of non-communicable diseases</li> </ul>	28, 30, 31, 33, 34, 35, 37, 38 - 40	<a href="#">Digestion</a>  <a href="#">Animal transport systems</a>	<a href="https://www.youtube.com/watch?v=4ui4oSHHnzA">https://www.youtube.com/watch?v=4ui4oSHHnzA</a>  <a href="https://www.youtube.com/watch?v=VLK2wANjQm0">https://www.youtube.com/watch?v=VLK2wANjQm0</a>  <a href="https://www.youtube.com/watch?v=bpYaKM2hVFY">https://www.youtube.com/watch?v=bpYaKM2hVFY</a>
<b>Required practical 4:</b> Use qualitative reagents to test for a range of carbohydrates, lipids and proteins	<ul style="list-style-type: none"> <li>- Reagents used to test for sugars, starch, proteins and lipids</li> <li>- Positive result for each food test</li> <li>- Conditions required to carry out food test</li> </ul>	32	<a href="#">Food tests</a>	<a href="#">Food tests – video summary</a>  <a href="#">Food tests - detailed methods</a>

# Biology Paper 1

Exam date: 17<sup>th</sup> May

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

Spec point	Concepts	CGP revision guide pages	Bitesize	YouTube
<b>4.3.1</b> Communicable Diseases	<ul style="list-style-type: none"><li>-definition and examples of pathogen</li><li>-how viruses and bacteria make us ill</li><li>-examples of diseases caused by each type of pathogen</li><li>-human defence mechanisms</li><li>-what happens in a vaccine</li><li>-comparing antibody production after active and passive immunity</li></ul>	46 – 50	<a href="https://www.bbc.co.uk/bitesize/guides/zs4mk2p/revision/1">https://www.bbc.co.uk/bitesize/guides/zs4mk2p/revision/1</a>	<a href="https://www.youtube.com/watch?v=rAJGnS_ktk4">https://www.youtube.com/watch?v=rAJGnS_ktk4</a>
<b>4.4.1</b> Photosynthesis	<ul style="list-style-type: none"><li>- Word and symbol equation</li><li>- Rate of photosynthesis and the factors that affect it</li></ul>	51-51	<a href="https://www.bbc.co.uk/bitesize/guides/zg8nrwx/revision/1">https://www.bbc.co.uk/bitesize/guides/zg8nrwx/revision/1</a>	<a href="https://www.youtube.com/watch?v=rAJGnS_ktk4&amp;t=1s">https://www.youtube.com/watch?v=rAJGnS_ktk4&amp;t=1s</a>
<b>Required practical 6.</b> Investigate the effect of light intensity on the rate of photosynthesis	<ul style="list-style-type: none"><li>- Set up equipment</li><li>- Collect data</li><li>- Calculate the rate of reaction using data and a graph</li></ul>	52-53	<a href="https://www.bbc.co.uk/bitesize/guides/zg8nrwx/revision/5">https://www.bbc.co.uk/bitesize/guides/zg8nrwx/revision/5</a>	<a href="https://www.youtube.com/watch?v=id0aO_OdFwA&amp;t=1s">https://www.youtube.com/watch?v=id0aO_OdFwA&amp;t=1s</a>  <a href="https://www.youtube.com/watch?v=cBCKedXdFeE">https://www.youtube.com/watch?v=cBCKedXdFeE</a>

These specification points will **may be assessed in low or linked tariff questions** on this paper.

Spec point	CGP combined Science Revision Guide Pages
4.1.2 Cell division	15
4.2.3 Plant tissues, organs and systems	39-41
4.3.3 Plant diseases	43-44
4.4 Bioenergetics	50-57

These specification points will **not be assessed** on this paper.

Spec point	CGP Biology Revision Guide Pages
4.1.14 Cell differentiation	14
4.2.1 Principles of organisation	
4.2.2.3 Blood	36
4.2.2.7 Cancer	41
4.3.1.5 Protist diseases	44
4.4.1.3 Uses of glucose from photosynthesis	50
4.4.2.1 Aerobic and anaerobic respiration	55
4.4.2.2 Response to exercise	63
4.4.2.3 Metabolism	54

# AQA GCSE Biology: Paper 2 Foundation tier

Advance Information of Assessed Content 2022

Link to specification:

[GCSE Biology Specification](#)

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

# Biology Paper 2

Spec point	Concepts	CGP revision guide pages	Bitesize	YouTube
<b>4.5.2</b> The human nervous system	<ul style="list-style-type: none"> <li>- Function of the NS</li> <li>- Control of body temperature</li> <li>- Response to high/ low temperatures</li> </ul>	72	<a href="#">Controlling body temperature.</a>	<a href="https://www.youtube.com/watch?v=WoMPARSQPZw">https://www.youtube.com/watch?v=WoMPARSQPZw</a>
<b>Required practical 7</b> - Investigation into human reaction times	<ul style="list-style-type: none"> <li>- Identify errors in an investigation</li> <li>- Suggest improvements to the method</li> </ul>	61	<a href="https://www.bbc.co.uk/bitesize/guides/zprxy4j/revision/4">https://www.bbc.co.uk/bitesize/guides/zprxy4j/revision/4</a>	<a href="https://www.youtube.com/watch?v=Fm02i4vEi5Q">https://www.youtube.com/watch?v=Fm02i4vEi5Q</a>  <a href="https://www.youtube.com/watch?v=Ws5qVXYHRnQ&amp;t=6s">https://www.youtube.com/watch?v=Ws5qVXYHRnQ&amp;t=6s</a>
<b>4.5.3</b> Hormonal control in humans	<ul style="list-style-type: none"> <li>- The endocrine system</li> <li>- Function of hormones within the endocrine system</li> <li>- Control of blood glucose</li> <li>- Diabetes</li> <li>- Kidneys and the role of ADH</li> <li>- Adrenaline and thyroxine</li> </ul>	73 – 76, 80	<a href="https://www.bbc.co.uk/bitesize/guides/zttqfcw/revision/1">https://www.bbc.co.uk/bitesize/guides/zttqfcw/revision/1</a>	<a href="#">Endocrine system</a>
<b>4.5.4</b> Plant hormones	<ul style="list-style-type: none"> <li>- Site of auxin production</li> <li>- Role of auxin in producing phototropism / gravitropism</li> </ul>	81	<a href="https://www.bbc.co.uk/bitesize/guides/zc6cqhv/revision/1">https://www.bbc.co.uk/bitesize/guides/zc6cqhv/revision/1</a>	<a href="https://www.youtube.com/watch?v=Bf5WKEMB5o">https://www.youtube.com/watch?v=Bf5WKEMB5o</a>
<b>Required practical 8</b> – Investigate the effect of light on the growth of newly germinated seedlings	<ul style="list-style-type: none"> <li>- identify independent, dependent and control variables</li> <li>- Describe how variables can be controlled</li> </ul>	81	<a href="https://www.bbc.co.uk/bitesize/guides/zc6cqhv/revision/3">https://www.bbc.co.uk/bitesize/guides/zc6cqhv/revision/3</a>	<a href="https://www.youtube.com/watch?v=fEo21LbnJJM">https://www.youtube.com/watch?v=fEo21LbnJJM</a>

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

Spec point	Concepts	CGP revision guide pages	Bitesize	YouTube
4.6.1 Reproduction	<ul style="list-style-type: none"> <li>- Sexual and asexual reproduction</li> <li>- Gametes</li> <li>- Meiosis</li> </ul>	87-89	<a href="https://www.bbc.co.uk/bitesize/guides/z9pkmsg/revision/1">https://www.bbc.co.uk/bitesize/guides/z9pkmsg/revision/1</a>	<a href="https://www.youtube.com/watch?v=Fh9b6a-3DLQ">https://www.youtube.com/watch?v=Fh9b6a-3DLQ</a>
<b>Required Practical 7:</b> 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"> <li>-Using transects and quadrats are used by ecologists to determine the distribution and abundance of species in an ecosystem.</li> <li>-Understand the terms mean, mode and median</li> <li>-Calculate arithmetic means</li> </ul>	110-111	<a href="https://www.bbc.co.uk/bitesize/guides/zqskv9q/revision/3">https://www.bbc.co.uk/bitesize/guides/zqskv9q/revision/3</a>	<a href="https://www.youtube.com/watch?v=2MW6nwf80XM">https://www.youtube.com/watch?v=2MW6nwf80XM</a>  <a href="https://www.youtube.com/watch?v=RhMOCxXcDrQ">https://www.youtube.com/watch?v=RhMOCxXcDrQ</a>  <a href="https://www.youtube.com/watch?v=yLHz2Ea10Mg&amp;t=2s">https://www.youtube.com/watch?v=yLHz2Ea10Mg&amp;t=2s</a>
4.6.3 The development of understanding of genetics and evolution	Evidence of evolution Fossils and Extinction	76, 79	<a href="https://www.bbc.co.uk/bitesize/guides/zcqbdxs/revision/1">https://www.bbc.co.uk/bitesize/guides/zcqbdxs/revision/1</a>	<a href="https://www.youtube.com/watch?v=P5a3dAUod38">https://www.youtube.com/watch?v=P5a3dAUod38</a>

These specification points will **may be assessed in low or linked tariff questions** on this paper.

Spec point	CGP Combined science Revision Guide Pages
4.5.1 Homeostasis	58
4.6.4 Classification of living organisms	81
4.7.1.2 Abiotic factors 4.7.1.3 Biotic factors	84
4.7.2.1 Levels of organisation	
4.7.3.2 Waste management	91

# Biology Paper 2

Exam date: 15<sup>th</sup> June

These specification points will **not be assessed** on this paper.

Spec point	CGP Revision Guide Pages
<b>Topic 5: Homeostasis and response</b>	
4.5.2.2 The brain	
4.5.2.3 The eye	
4.5.3.3 Maintaining water and nitrogen balance in the body	
<b>Topic 6: Inheritance, variation and evolution</b>	
4.6.1.3 Advantages/ Disadvantages of sexual and asexual reproduction	69
4.6.1.5 DNA structure	68
4.6.1.8 Sex determination	71
4.6.2 Variation and evolution	75
4.6.3.1 Theory of evolution	76
4.6.3.2 Speciation	
4.6.3.3 The understanding of genetics	
4.6.3.7 Resistant bacteria	80

# Biology Paper 2

Exam date: 15<sup>th</sup> June

These specification points will **not be assessed** on this paper.

Spec point	CGP Revision Guide Pages
<b>Topic 7: Ecology</b>	
4.7.1.4 Adaptations	85
4.7.2.2 How materials are cycled	89,90
4.7.3.1 Biodiversity	91
4.7.3.4 Deforestation	93
4.7.3.5 Global warming	92
4.7.3.6 Maintaining Biodiversity	94
4.7.4 Trophic levels in an ecosystem	83
4.7.5 Food production	