

<b>Exam Board:</b>	AQA
<b>Subject:</b>	Biology
<b>Paper:</b>	Biology Paper 2
<b>Marks available:</b>	100
<b>Length of paper:</b>	1 hour 45 minutes
<b>Topics:</b>	Homeostasis & Response; Inheritance, Variation & Evolution; Ecology

### Exam Information, guidance and hints

#### Command words:

- Complete - Fill in gaps/add labels
- Give - Recall a simple fact
- Draw - Draw a symbol, diagram or graph
- Name - Only a short answer is required, not an explanation or a description. Often it can be answered with a single word, phrase or sentence.
- Describe - Give details about an event, idea or a process
- Explain - Give reasons for an event, idea or process (use because/so)
- Compare - Identify how things are similar/different
- Suggest - Use your own knowledge in an unfamiliar context
- Plan - Write a method
- Calculate - Use numbers in a formula

#### Online Resources

- [Cognito past papers](#)

#### Hints/tips:

- If you are given the equation, ensure you are using it correctly.
- When plotting a graph make sure you are using a pencil & ruler. Be accurate when plotting the points / drawing the bars.

#### Foundation Example Papers and Markschemes

#### Higher Example Papers and Markschemes

<a href="#">2018 F Paper</a>	<a href="#">Annotated P2</a>	<a href="#">2018 MS</a>	<a href="#">2018 H paper</a>	<a href="#">Annotated P2</a>	<a href="#">2018 MS</a>
<a href="#">2019 F Paper</a>	<a href="#">Annotated P2</a>	<a href="#">2019 MS</a>	<a href="#">2019 H Paper</a>	<a href="#">Annotated P2</a>	<a href="#">2019 MS</a>
<a href="#">2020 F Paper</a>	<a href="#">Annotated P2</a>	<a href="#">2020 MS</a>	<a href="#">2021 H Paper</a>	<a href="#">Annotated P2</a>	<a href="#">2021 MS</a>

**PLC Biology Paper 1 - Mock 1**

Topic	Key information related to topic	Sparx Code	Resources/Information related to topic	How well do you understand this topic? RAG		
				Red	Amber	Green
Homeostasis	Describe and explain the differences between the nervous and endocrine systems.	R832	<a href="https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t-7.07">https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t-7.07</a>			
Homeostasis	Describe the order in which a nervous response occurs.	R213	<a href="https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t-7.05">https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t-7.05</a>			
Homeostasis	<b>HIGHER</b> - Describe the effects of adrenaline on the human body.	R904	<a href="https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t-7.01">https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t-7.01</a>			
Homeostasis	Explain how blood glucose levels are controlled in the body and how diabetes affects the body.	R379 R841	<a href="https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t-7.03">https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t-7.03</a> <a href="https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t-7.04">https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t-7.04</a>			
Homeostasis	Describe a method for measuring human reaction time. Include control variables to ensure valid, reliable results.	R683	<a href="https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t-7.05">https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t-7.05</a> <a href="https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t-11.08">https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t-11.08</a>			
Homeostasis	Describe what a reflex action is and give some examples.	R936	<a href="https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t-7.05">https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t-7.05</a>			
Homeostasis	Name the structures in the brain and give the functions for each.	R838	<a href="https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t-4.12">https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t-4.12</a>			
Homeostasis	Explain some of the common eye problems and how they can be corrected.	R864 R369	<a href="https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t-4.14">https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t-4.14</a>			
Homeostasis	Name the structures and describe the functions of each structure in the eye.	R850	<a href="https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t-4.13">https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t-4.13</a>			
Homeostasis	Explain how hormones control the menstrual cycle and how they can be used in contraception to prevent pregnancy.	R679	<a href="https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t-7.09">https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t-7.09</a>			
Homeostasis	<b>HIGHER</b> - Explain how hormones can be used in IVF to treat infertility in humans.	R493	<a href="https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t-7.1">https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t-7.1</a>			

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Homeostasis	Describe the processes of filtration and selective reabsorption and state which molecules are not filtered, are filtered out completely and which are filtered but then selective reabsorbed.	R445 R591 R570	<a href="https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t-4.09">https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t-4.09</a> <a href="https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t-4.11">https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t-4.11</a>			
Homeostasis	<b>HIGHER</b> - Explain how a change in ADH production by the pituitary gland can impact the volume and concentration of urine produced by the kidney's	R141	<a href="https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t-4.09">https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t-4.09</a>			
Homeostasis	Describe what a tropism is in plants and name the hormone responsible for the response.	R201	<a href="https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t-6.16">https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t-6.16</a> <a href="https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t-11.09">https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t-11.09</a>			
Homeostasis	Plan an investigation to investigate the effect of directional light of the growth of seedlings.	R730	<a href="https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t-11.09">https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t-11.09</a>			
Homeostasis	<b>HIGHER</b> - Explain how different plant hormones can be used to control plant growth and fruit ripening.	R782	<a href="https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t-6.16">https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t-6.16</a>			
Inheritance, variation and evolution	Name the classification groups in order of size in Linnaeus's classification system.	R761	<a href="https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t-8.22">https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t-8.22</a>			
Inheritance, variation and evolution	State what makes up a species binomial name.	R761	<a href="https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t-8.22">https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t-8.22</a>			
Inheritance, variation and evolution	Explain the importance of Mendel's work on inheritance and suggest why the importance was not recognised until much later.	R189	<a href="https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t-8.17">https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t-8.17</a>			
Inheritance, variation and evolution	Name the scientists who developed the theory of evolution by natural selection and describe the theory.	R909 R157 R738	<a href="https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t-8.05">https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t-8.05</a> <a href="https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t-8.05">https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t-8.05</a>			

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			<a href="https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t-8.06">8.07 https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t-8.06</a>			
Inheritance, variation and evolution	State the reasons that a species may become extinct.	R294 R719	<a href="https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t-8.19">https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t-8.19</a>			
Inheritance, variation and evolution	Describe how selective breeding can result in domestic animals.	R754	<a href="https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t-8.18">https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t-8.18</a>			
Inheritance, variation and evolution	Explain how to determine the most recent common ancestor or the most distant relative of a species using an evolutionary tree.	R761	<a href="https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t-8.22">https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t-8.22</a>			
Inheritance, variation and evolution	Define key inheritance vocabulary such as genotype, phenotype, allele, homozygous, heterozygous, dominant and recessive.	R216	<a href="https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t-8.02">https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t-8.02</a>			
Inheritance, variation and evolution	Use genetic diagrams to draw and complete a punnett square diagram including showing the probability for a particular genotype or phenotype	R249 R933 R431	<a href="https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t-8.14">https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t-8.14</a>			
Inheritance, variation and evolution	<b>HIGHER</b> - Explain why a genetic disease being caused by a recessive allele is much rarer in a population.	R249 R933 R431	<a href="https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t-8.14">https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t-8.14</a>			
Inheritance, variation and evolution	Describe the stages of genetic modification and suggest the reasons people may have concerns over GM food	R801 R609	<a href="https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t-9.01">https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t-9.01</a>			
Inheritance, variation and evolution	Explain how the use of GM crops can increase the yield of a crop.	R805	<a href="https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t-9.01">https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t-9.01</a>			
Inheritance, variation and	Explain why a farmer might choose to take cuttings of a plant rather than growing the plant	R859	<a href="https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t-9.03">https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t-9.03</a>			

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evolution	from seeds.					
Ecology	Name the factors that plants and animals compete for.	R750	<a href="https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t-10.02">https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t-10.02</a>			
Ecology	Explain how different adaptations can make an animal more likely to survive.	R453	<a href="https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t-8.21">https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t-8.21</a>			
Ecology	Draw and label a pyramid of biomass using available data.	R618	<a href="https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t-10.06">https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t-10.06</a>			
Ecology	Explain what causes decomposition and decay and why if the conditions are not suitable decay does not occur.	R687 R152	<a href="https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t-10.11">https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t-10.11</a> <a href="https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t-11.11">https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t-11.11</a>			
Ecology	Explain how the destruction of different habitats (rainforests/peat bogs etc) is impacting the Earth's atmosphere.	R975	<a href="https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t-10.19">https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t-10.19</a> <a href="https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t-10.13">https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t-10.13</a>			
Scientific Skills	Calculate % change	X	<a href="https://www.youtube.com/watch?v=jAcDJDjQk2g">https://www.youtube.com/watch?v=jAcDJDjQk2g</a>			
Scientific Skills	Describe relationships shown in graphs	X	<a href="https://www.youtube.com/watch?v=OzDUYj6nNCA">https://www.youtube.com/watch?v=OzDUYj6nNCA</a>			
Scientific Skills	Write numbers to a specific number of decimal places	X	<a href="https://www.youtube.com/watch?v=P7ozJW8LSxw">https://www.youtube.com/watch?v=P7ozJW8LSxw</a>			
Scientific Skills	Write numbers to a specific number of significant figures	X	<a href="https://www.youtube.com/watch?v=-X0amVzMkFo">https://www.youtube.com/watch?v=-X0amVzMkFo</a>			
Scientific Skills	Identify variables in experiments	X	<a href="https://www.youtube.com/watch?v=nKbUbfadxRU">https://www.youtube.com/watch?v=nKbUbfadxRU</a>			