

Exam Board:	AQA
Subject:	Combined Science (Biology)
Paper:	Biology Paper 2
Marks available:	70
Length of paper:	1 hour 15 minutes
Topics:	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

2018 F Paper	Annotated P2	2018 MS	2018 H paper	Annotated P2	2018 MS
2019 F Paper	Annotated P2	2019 MS	2019 H Paper	Annotated P2	2019 MS
2020 F Paper	Annotated P2	2020 MS	2020 H Paper	Annotated P2	2020 MS

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	HIGHER - Describe and explain the process of IVF to treat infertility.	R493	https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t_7.1			
Homeostasis	Define metabolism and describe how it can be increased or decreased.	R434	https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t_3.04			
Homeostasis	Describe and explain the differences between the nervous and endocrine systems.	R832	https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t_7.07			
Homeostasis	Name the glands in the endocrine system and explain their functions.	R832	https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t_7.07			
Homeostasis	Describe how the body maintains a consistent blood glucose concentration (HIGHER - must include low blood sugar as well as high blood sugar)	R379	https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t_7.03			
Homeostasis	Describe how hormones are transported around the body.	R832	https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t_7.07			
Homeostasis	Describe the treatments for the different types of diabetes.	R841	https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t_7.04			
Homeostasis	Describe a method for measuring human reaction time. Include control variables to ensure valid, reliable results.	R683	https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t_7.05 https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t_11.08			
Homeostasis	Describe the order in which a nervous response occurs.	R213	https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t_7.05			
Homeostasis	Explain how neurones are adapted for their function.	R841	https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t_7.05			
Inheritance, variation and evolution	Describe the differences between asexual and sexual reproduction.	R320	https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t_8.12			

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Inheritance, variation and evolution	Name the classification groups in order of size in Linnaeus's classification system.	R761	https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t-8.22			
Inheritance, variation and evolution	Describe the differences between body cells and gametes.	R668 R969	https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t-8.12			
Inheritance, variation and evolution	Explain the risks and benefits of GM crops.	R801 R609	https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t-9.01			
Inheritance, variation and evolution	Define key inheritance vocabulary such as genotype, phenotype, allele, homozygous, heterozygous, dominant and recessive.	R216	https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t-8.02			
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	https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t-8.14			
Inheritance, variation and evolution	Higher - Describe how a mutation during protein synthesis can result in enzymes that do not function correctly.	R909 R295	https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t-8.04 https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t-8.05			
Inheritance, variation and evolution	Compare the arguments for and against embryonic screening.	R249	https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t-8.16			
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	https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t-8.22			
Inheritance, variation and evolution	Name the scientists who developed the theory of evolution by natural selection and describe the theory.	R909 R157 R738	https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t-8.05 https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t-8.07			

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			https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t-8.06			
Inheritance, variation and evolution	State the reasons that a species may become extinct.	R294 R719	https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t-8.19			
Inheritance, variation and evolution	Describe how fossil evidence can be used to provide evidence for evolution	R719	https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t-8.19			
Ecology	Draw a food chain	R618	https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t-10.04			
Ecology	Describe how to calculate a population estimate using quadrats.	R347 R355	https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t-10.07 https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t-11.1			
Ecology	Describe how to ensure quadrats are placed randomly when estimating population.	R355	https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t-11.1			
Ecology	Name and describe different types of pollution.	R604	https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t-10.13			
Ecology	Describe and explain the effects of climate change	R325	https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t-10.17			
Ecology	Define key organisation of an ecosystem vocabulary such as: ecosystem, community, population, producers, consumers, decomposers, prey and predator	R504	https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t-10.02			
Ecology	Describe the different ways in which predator species can be important in ecosystem stability.	R226	https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t-10.02			
Ecology	Describe the process of eutrophication and explain its impacts on the environment.	R604	https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t-10.13			

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Scientific Skills	Identify variables in experiments	X	https://www.youtube.com/watch?v=nKbUbfadxRU			
Scientific Skills	Describe relationships shown in graphs	X	https://www.youtube.com/watch?v=OzDUYj6nNCA			
Scientific Skills	Calculate mean, median and mode	X	https://www.youtube.com/watch?v=nYScfgOdz_A			