



PLUME ACADEMY - LEARNING OVERVIEW

Year	11
Course	GCSE Biology
Specification Number/Exam Board	AQA Biology (8461)
End of course assessment and weightings	Higher and Foundation Paper 1: (50%) <ol style="list-style-type: none">1. Cell Biology2. Organisation3. Infection and Response4. Bioenergetics Paper 2: (50%) <ol style="list-style-type: none">1. Homeostasis and response2. Inheritance, variation and evolution3. Ecology

Prior Learning

The subject builds on your child's key stage 3 experience by developing their knowledge and understanding of topics including: cells, organisation, photosynthesis, adaptation and environment. Students further develop key skills such as scientific enquiry and planning and analysis of investigations.

Curriculum Intent – What are the curriculum aims?

The GCSE specification in biology should enable students to:

- develop scientific knowledge and conceptual understanding of biology.
- develop understanding of the nature, processes and methods of biology through different types of scientific enquiries that help them to answer scientific questions about the world around them
- develop and learn to apply observational, practical, modelling, enquiry and problem-solving skills, both in the laboratory, in the field and in other learning environments
- develop their ability to evaluate claims based on biology through critical analysis of the methodology, evidence and conclusions, both qualitatively and quantitatively.



Curriculum Implementation – What will my child be learning?

Term 1	Half Term 1	Cell Transport, Plant organisation and processes
	Half Term 2	Bioenergetics (Photosynthesis and Respiration)
Term 2	Half Term 3	Cell division (mitosis and meiosis), Reproduction and Inheritance
	Half Term 4	Variation, evolution and classification
Term 3	Half Term 5	Teacher led revision
	Half Term 6	Final examinations

Curriculum Impact – How will progress be assessed as I learn?

Students are assessed as follows:

- Standard Homework Booklets that cover the current topic.
- 6 mark extended writing questions
- Homework tasks
- General marking and feedback from the teacher
- Progress reviews
- Mock Examinations
- Final end of course AQA examinations

Super-Curricular Opportunities – Support and Extending Learning

Useful study resources	If a student is really passionate about this subject...	As a parent/carer, I can assist my child in this subject by:
<p>The AQA GCSE Biology specification - the full specification for the AQA GCSE Biology qualification</p> <p>The BBC GCSE Bitesize website covers all of the important topics that you need to know for your exams.</p> <p>Malmesbury Education – videos covering all the required practicals for the AQA GCSE Biology Specification</p> <p>Primrose Kitten AQA GCSE Biology Revision - a video</p>	<p>Visits and events:</p> <p>Students could get involved in raising awareness of issues contributing to pollution and climate change, endangered species</p> <p>Attend Essex University Open Days</p> <p>Attend Anglia Ruskin University Open Days</p> <p>Visit Broomfield General Hospital Open Days (Medicine)</p> <p>The Science Museum, London</p> <p>Lectures</p>	<p>Useful books and revision aids:</p> <p>9-1 GCSE Biology AQA Revision Question Cards</p> <p>AQA GCSE Biology Student Book (AQA GCSE Science 3rd Edition)</p> <p>Grade 9-1 GCSE Biology AQA Complete Revision & Practice with Online Edition</p>



presentation containing a concise summary of the main learning points identified in the syllabus

[GCSE Science](#) has some written notes covering important topics

The [CGP books website](#) for quizzes and games

www.freesciencelessons.co.uk
- short bitesize lessons

Journals:

New Scientist (www.newscientist.com)

Nature
(www.nature.com)

Biological Sciences Review
(<https://www.liverpool.ac.uk/life-sciences/outreach/biological-sciences-review/>)

Big Picture
<https://bigpictureeducation.com/>

British Medical Journal
(<http://www.bmj.com>)

Scientific American
(<https://www.scientificamerican.com/>)

Books:

Blood Work: A Tale of Medicine and Murder in the Scientific Revolution,
Holly Tucker
Life Ascending, Nick Lane

Genome, Matt Ridley.
The Energy of Life, Guy Brown

Bad Science, Ben Goldacre
The Human Brain: A Guided Tour,
Susan Greenfield

The Immortal Life of Henrietta Lacks,
Rebecca Skloot.

The Epigenetics Revolution, Nessa
Carey?

The Incredible Unlikelihood of Being,
Alice Roberts
Calculus Diaries, Jennifer Ouellette.
Seed to Seed, Nicholas Harberd



	<p><i>The Botany of Desire</i>, Michael Pollan? <i>The Selfish Gene</i>, Richard Dawkins</p> <p><i>The Unnatural Nature of Science</i>, Lewis Wolpert</p> <p><i>Double Helix</i>, Watson and Crick</p> <p>Podcasts:</p> <p><u>The Infinite Monkey Cage</u></p> <p><u>Radio 4 Science and Nature Podcasts</u></p>	
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