

A level Biology Induction Pack

Contents:

- **Summer Work and Induction**
- **Course Requirements**
- **Course Expectations**
- **What to Read, Listen and Watch**
- **Course information**

Summer work and induction

Before you start biology A level it is imperative that you have a good grounding in your biology GCSE. Please make sure that over summer you have looked over the specification for your GCSE; both combined science and separate science the specifications are on the AQA website.

If you sat combined science, **I would strongly recommend** that you read through and learn about the topics that are extra in the biology separate science. It will make things much easier when we move on at A level. You can use Seneca, BBC bitesize and any other resources to do this. If you identify something that you are not sure about, make a point of seeking help on this when you return to school (or before if you have the opportunity).

The topic areas in separate science that are not in combined science include (use this table as a tick list to help organise your learning):

Separate Science Biology Topic	BBC bitesize	Video	Notes
Culturing Microorganisms			
Monoclonal Antibodies			
Plant Disease			
The Brain			
The Eye			
Control of Body Temperature			
Maintaining Water and Nitrogen Balance			
Plant Hormones			
Advantages and Disadvantages of Sexual and Asexual Reproduction			
DNA Structure			
Cloning			
Theory of Evolution			
Speciation			
The Understanding of Genetics			
Decomposition			
Impact of Environmental Change			
Trophic Levels in an Ecosystem			
Food Production			

You are expected to be at grade 6 biology when you join the course, so please make sure that you have not forgotten everything by the time we start!

You will be assessed on your biology GCSE as part of the induction process.

The topics on the induction test include: Cell cycle, Microscopy, Cell transport, Communicable diseases, Culturing microorganisms, Respiration, Endocrine System, Genetics, Ecology

Course Requirements

What you need to achieve

- Combined scientists will need at least 6, 6
- Separate scientists will need at least two grade 6, one in biology
- Both combine and separate science routes will need grade 5 in maths

What you need to buy

- Text book: CGP A-Level Year 1 & AS Biology ISBN 978 1 78294 319 8 (*You will need the year 2 book which you can buy later on or there is a combined year 1 and year 2 book is also available*)
- A ring binder folder complete with plastic wallets and dividers to store and organise your notes.
- A full set of equipment – pens, pencils, highlighters, green pens, calculator, ruler, pencil sharpener
- Hard backed, non-spiral Bound, A4 note book (lab book)
- A4 paper for note taking

Optional

- Lab coat (available to buy through school in September)
- Lab goggles
- CGP Head start to A level biology ISBN: 9781782942795
- CGP Essential Maths Skills for A level Biology ISBN: 9781847623232

Course Expectations

- Maintain a high attendance level and it will be your responsibility to catch up with any work missed due to absence planned or otherwise
- You will be equipped for lessons
- You will be expected to study outside of school hours to extend your knowledge and understanding of the topics being taught and produce all work on the agreed deadlines
- Mobile phones and headphones will be off and in bags during lesson time
- High standard of classroom etiquette: No interruption to teaching and learning, prompt start on lesson tasks, minimal off topic chat, staying seated during teacher instruction, ask and answer questions, participate in class discussion
- No eating, chewing or drinking in labs

What to read, watch and listen

Read: Bill Bryson's 'The Body', Yuval Noah Harari's 'Sapiens', Nessa Carey's 'Junk DNA', Craig Venter's 'A Life Decoded', Matt Ridley's 'The Red Queen', Emily Anthes 'Frankenstein's Cat', Daniel Gibbs's 'A Tattoo on my brain' Merlin Sheldrake's 'Entangled Life', Ed Yong's 'I Contain Multitudes', Suzanne O'Sullivan's 'The Sleeping Beauties', Gavin Francis's 'Adventures in Human Being'

Watch: *Netflix* – Unnatural Selection, Blue Planet, Planet Earth, Explained *BBC* – Seven Worlds, One Planet, Spy in the Wild, Horizon. *Channel 4:* Extinct, Wild Amazon, Epidemic: When Britain Fought Aids, Saving Planet Earth, fixing a hole. Classic films that got the science right: Inherit the Wind (1960), Lorenzo's Oil (1992), Gorillas in the Mist, (1988), Andromeda Strain (1971), Something the Lord Made (2004)

Listen: The Infinite Monkey Cage (BBCR4), The Science Hour (BBCR4). The Naked Scientists, The Biology of Superheroes, This podcast will kill you, Room 5...and many more

If you find any other relevant and interesting books, programmes or podcasts, please do pass on the recommendation and you can write a review of it for our display

Course Information

AQA A Level Biology is made up of 8 topics;

- 4 in yr 12 (which is known as AS)
- 4 in yr 13 (which is known as A2)

There are in school assessments throughout the 2 years, but your final grade will be the result of 3 exam papers that will be sat at the end of yr 13 covering **all** topics.

Weighting of assessment objectives for A-level Biology

Assessment objectives (AOs)	Component weightings (approx %)			Overall weighting (approx %)
	Paper 1	Paper 2	Paper 3	
AO1	44–48	23–27	28–32	30–35
AO2	30–34	52–56	35–39	40–45
AO3	20–24	19–23	31–35	25–30
Overall weighting of components	35	35	30	100

10% of the overall assessment of A-level Biology will contain mathematical skills equivalent to Level 2 or above.

At least 15% of the overall assessment of A-level Biology will assess knowledge, skills and understanding in relation to practical work.