

Biology A Level

Preparation work: Pre-course Reading, Research and Tasks

Pre-reading and research will help you to become more familiar with the topics you are going to study on your A Level Biology course. If you complete the tasks below, they will also help you to become more confident when you start your course. Remember it is also a good idea to make sure you recap and consolidate your GCSE Biology and Organic Chemistry knowledge as well.

Specification :

A good place to start to look at the A level specification and familiarise yourself with what you will be studying on the course:

<https://www.aqa.org.uk/subjects/science/as-and-a-level/biology-7401-7402>

Task 1:

Produce a 1 side (A4) summary of at least 2 of the following topics that you will be studying as part of your course:

carbohydrates

<https://s-cool.co.uk/a-level/biology/biological-molecules-and-enzymes/revise-it/carbohydrates>

Lipids

<https://s-cool.co.uk/a-level/biology/biological-molecules-and-enzymes/revise-it/lipids>

proteins

<https://s-cool.co.uk/a-level/biology/biological-molecules-and-enzymes/revise-it/proteins>

Cell structure

<https://s-cool.co.uk/a-level/biology/cells-and-organelles/revise-it/introduction-to-cells>

Cell organelles

<https://s-cool.co.uk/a-level/biology/cells-and-organelles/revise-it/organelles>

Task 2:

Research the biology behind a news story that has recently caught your interest
e.g. Why is the Sars cov 2 virus so infectious and causing such variable symptoms? How do vaccines work? What is the biology behind the antibody test?
What is Crispr technology? Why are insect numbers declining?

<https://www.theguardian.com/science>

[https://www.bbc.co.uk/news/science and environment](https://www.bbc.co.uk/news/science_and_environment)

<https://www.independent.co.uk/news/science>

Websites for Further Research and Reading:

Watch a biology video – crash course/Bozeman/Craig savage/Penguin prof/ Amoeba sisters/snap
revise on any part of the biology specification that catches your interest.

Books to Read:

- 'The Immortal Life of Henrietta Lacks' by R Skloot
- 'Bad Science' by B Goldacre
- 'The Epigenetics Revolution: How Modern Biology is Rewriting Our Understanding of Genetics, Disease and Inheritance' by Nessa Carey
- 'Life at the extremes' by Frances Ashcoft
- 'The Ancestor's Tale: A pilgrimage to the dawn on life' by R Dawkins
- 'The Spark of life: Electricity in the human body' by Frances Ashcoft
- 'Oryx and Crake' by Margaret Atwood

Podcasts:

<https://www.flashforwardpod.com>

<https://www.alieward.com/ologies>

<https://www.sciencefriday.com/articles/show-not-tell-the-rise-of-the-infographic>

<http://thispodcastwillkillyou.com>

<https://gimletmedia.com/shows/science-vs>

<https://gimletmedia.com/shows/the-habitat>

Task 3:

Source one of the above books or listen to one of the podcasts. Write a summary of the key biological facts and main points you have learnt.

Programmes to Watch:

Currently on BBC iPlayer

- Primates
- Planet earth 2
- The blue planet 1 and 2

Or if you have Netflix there are a number of nature and ecology documentaries and films to watch.

- <https://www.netflix.com/gb/browse/genre/48768>

Progression Opportunities

Why choose Biology A Level:

- <https://successatschool.org/advicedetails/208/Why-Study-Biology%3F>

Explore the range of careers you can access by studying Biology

- <https://www.rsb.org.uk/careers-and-cpd/careers>
- https://www.rsb.org.uk/images/Teacher_careers_resource_for_KS5_2016.pdf

We hope you enjoy completing these tasks and look forward to you joining the course.

