

Year 12

Enrolment Task

Biology

Exam Board: AQA

Enrolment Task:

Complete both the following tasks. If you work on paper, you should paste a clear photograph of your work into two separate word documents and attach to your email.

Task 1: Biological Molecules

Biological molecules are often polymers and are based on a small number of chemical elements. In living organisms carbohydrates, proteins, lipids, inorganic ions and water all have important roles and functions related to their properties. DNA determines the structure of proteins, including enzymes.

Task: Produce a one page guide summarising the structures and functions of carbohydrates, proteins, lipids and nucleic acids (e.g. DNA)

Your summary should include:

- key words and definitions
- clearly labelled diagrams

Links:

<http://www.s-cool.co.uk/a-level/biology/biological-molecules-and-enzymes>

And take a look at these videos:

[\(103\) Biological Molecules - You Are What You Eat: Crash Course Biology #3 – YouTube](#)

[\(103\) Biomolecules \(Updated\) - YouTube](#)

Enrolment Task due by Friday 15th July

Submit your work here: <https://bit.ly/Enrolment-Task-Biology>

Teacher: Mr A Porter

Contact: aporter@stratfordschool.co.uk



Task 2: Cells

The cell is a unifying concept in biology, you will come across it many times during your two years of A level study. Prokaryotic and eukaryotic cells can be distinguished on the basis of their structure and ultrastructure. In complex multicellular organisms cells are organised into tissues, tissues into organs and organs into systems.

Task: Produce a one page guide summarising the differences between prokaryote and eukaryote cells

Your summary should include:

- key words and definitions
- clearly labelled diagrams

Links:

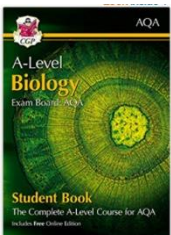
<http://www.s-cool.co.uk/a-level/biology/cells-and-organelles>

And take a look at these videos:

[\(103\) Introduction to Cells: The Grand Cell Tour - YouTube](#)

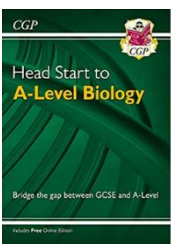
[\(103\) Prokaryotic vs. Eukaryotic Cells \(Updated\) - YouTube](#)

Recommended course textbook:



You will need your own copy of the course text book '[A-Level Biology for AQA](#)' published by CGP. It is available as a two-year version, or as two separate books which cover each year of the course.

You may wish to get a copy now or wait until your place on the course is confirmed in August.



This Head Start to A-Level Biology is also extremely useful, particularly if you did Combined Science.

GCSE Biology is regarded as “assumed knowledge” at A-Level – you can’t just forget it in other words. In the first week or two in September you will sit a Baseline Test which will assess some key areas of GCSE Biology. This data will help us to support you the best we can.

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Wider Reading and Extension Ideas:

As optional extra areas of study, you might like to:

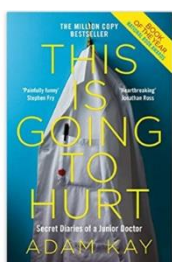
Extend Task 1 and 2:

1. Use the website of pharmaceutical company GSK to explore how they develop new medicines and vaccines and understand the regulation needed to make this a safe and effective process. Summarise your findings using mind map.

<https://www.gsk.com/en-gb/research-and-development/development/>

2. Complete the Future Learn course 'Causes of Human Disease: Understanding Causes of Disease' to learn about the epidemiological methods used to understand the causes of diseases and how social factors influence their development.

<https://www.futurelearn.com/courses/human-disease-understanding-causes-of-disease>

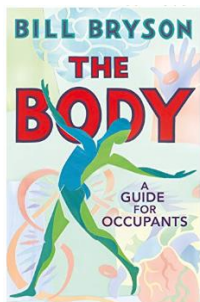


3. If you have access, this book will give you a personal understanding of the work of a Junior Doctor in the NHS.

[This is Going to Hurt – Adam Kay](#)

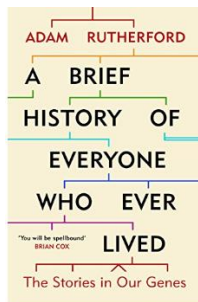
Extend Task 2 and 3:

If you have access, to them, these books will give you a great wider understanding of what makes us human.



[The Body – Bill Bryson](#)

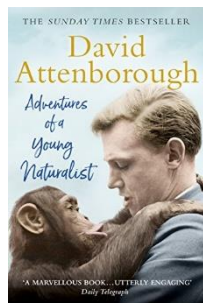
Bill Bryson takes us on a head-to-toe tour of the marvel that is the human body. Also available electronically from [Warwickshire libraries](#) and for Kindle and Audible



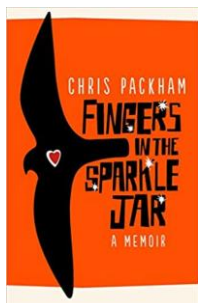
[A Brief History of Everyone Who Ever Lived – Adam Rutherford](#)

This is a story about you and how you came to be.

Also available for Kindle and Audible.



[Adventures of a Young Naturalist – David Attenborough](#)



[Fingers in the Sparkle Jar – Chris Packham](#)

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