

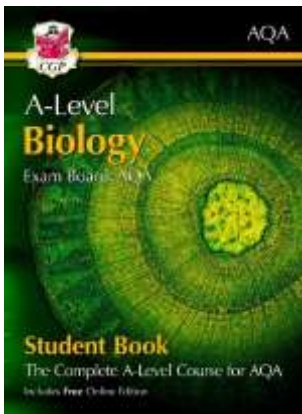


AQA A-Level Biology

You will need to purchase:

- Ring binder folders
- Plastic wallets
- Pens, pencils, ruler etc
- Scientific calculator

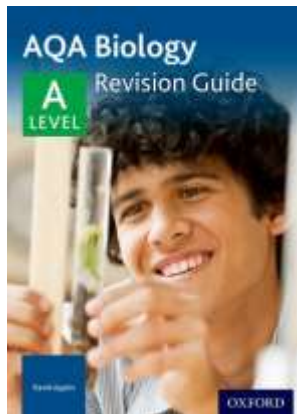
We recommend the following text book/revision guides to help with your study of this course:



Available in the
school shop

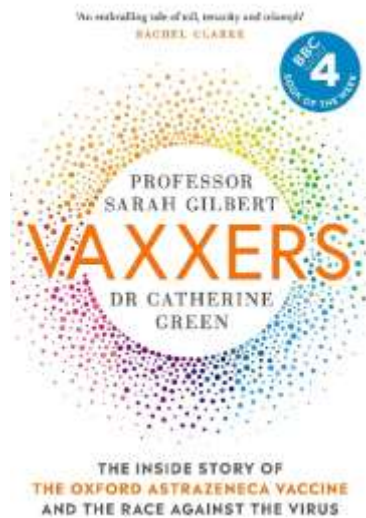


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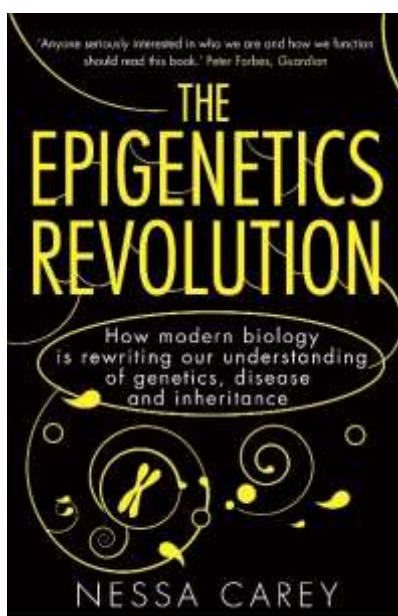
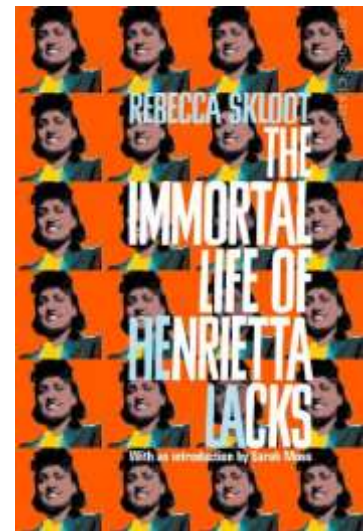
This pack contains a programme of activities and resources to prepare you to start an A level in Biology in September. It is aimed to be used after you complete your GCSE, throughout the remainder of the Summer term and over the Summer Holidays to ensure you are ready to start your course in September.

Recommended books:



In Vaxxers, we hear directly from Professor Gilbert and her colleague Dr Catherine Green as they reveal the inside story of making the Oxford AstraZeneca vaccine and the cutting-edge science and sheer hard work behind it.

Rebecca Skloot's fascinating account is the story of the life, and afterlife, of one woman who changed the medical world for ever. Balancing the beauty and drama of scientific discovery with dark questions about who owns the stuff our bodies are made of, *The Immortal Life of Henrietta Lacks* is an extraordinary journey in search of the soul and story of a real woman, whose cells live on today in all four corners of the world.



At the beginning of this century enormous progress had been made in genetics. The Human Genome Project finished sequencing human DNA. It seemed it was only a matter of time until we had all the answers to the secrets of life on this planet.

Summer Task Instructions:

A level Biology will use your knowledge from GCSE and build on this to help you understand new and more demanding ideas. You need to complete the following tasks to get you ready to start your studies in September. These activities directly link to the first 3 units you will cover at the start of Year 12.

Task 1:

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. During the cell cycle genetic information is copied and passed to daughter cells. Daughter cells formed during mitosis have identical copies of genes while cells formed during meiosis are not genetically identical

1. Using an unlabelled animal cell diagram research and label each of the cell contents. Use the AQA A level Biology specification to find the level of detail needed to complete the task. The specification can be found here: <https://filestore.aqa.org.uk/resources/biology/specifications/AQA-7401-7402-SP-2015.PDF>
2. Provide a function for each organelle.
3. Find an image of a plant cell showing a similar level of complexity, label the organelles and explain the function of any additional organelles present in a plant cell that you have not already covered in animal cells.

Task 2: Seneca (<https://senecalearning.com/en-GB/>)

Join the Seneca classroom using the following code: wtlqf164ub

Or click this link: <https://app.senecalearning.com/dashboard/join-class/wtlqf164ub>

Complete the assignment titled 'Biology Summer Task 2024'

Task 3: Test Revision

During one of your first lessons back in September you will have a short assessment which will be based on GCSE content. Please revise the following content for this assessment:

- Mitosis
- Osmosis
- Monoclonal antibodies (triple)
- Microscopy
- Animal and plant cells
- Cancer

Deadline for task:

First Biology lesson back after Summer holidays

Please email c.livick-smith@springwoodhighschool.co.uk or l.dawson@springwoodhighschool.co.uk if you have any questions