

Why study Biology at Magna?

An exciting and challenging A-Level where you develop links between key biological processes and ideas- Biology is quite literally the study of "life". You will develop a range of transferable skills such as problem solving and analytical techniques. Fundamentally an experimentally based subject, you will be able to participate in fieldwork and complete required practical experiments to link theory to real life.

Purpose of task:

A Level Biology will take what you know from GCSE and build on it. The following tasks are designed to help consolidate your knowledge from GCSE so you are ready to start your A Level course - think of your learning as steady marathon training and not a sprint at the end! You need a solid foundation to build on as you start your A Level studies.

Tasks:

Cells Topic Task 1

Produce a one page revision guide to share with your class in September summarising one of the following areas: "Cells and Cell Ultrastructure", "Prokaryotes and Eukaryotes", or "Mitosis and Meiosis".

Whichever topic you choose, your revision guide should include:

- Key words and definitions
- Clearly labelled diagrams
- Short explanations of key ideas or processes.

Biological Molecules Topic Task 2

Krabbe disease occurs when a person doesn't have a certain enzyme in their body. The disease affects the nervous system. Write a letter to a GP or a sufferer to explain what an enzyme is. Your letter should:

- Describe the structure of an enzyme
- Explain the role of enzymes inside the body

The resources you will need for these two tasks are listed on the right →

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Referencing Task 3

For both tasks you need to produce a "Reference List". This will include a list of the books and websites and any other resources you used to help you.

There will be times when you are required to correctly reference sources of information you use as part of your A Level.

We use Harvard Style Referencing.

The following link will take you to a website that shows you how to reference books, webpages, web video clips and journals. There are also some interactive quizzes to help you

<http://sixthformstudyskills.ncl.ac.uk/referencing/>

Recommended resources:

Cells Topic Task

Visit these websites and read the information:

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

<https://pmt.physicsandmathstutor.com/download/Biology/A-level/Notes/AQA/2-Cells/Summary%20Notes.pdf>

Watch these videos:

<https://www.youtube.com/watch?v=gcTuQpuJyD8>

<https://www.youtube.com/watch?v=L0k-enzoeOM>

<https://www.youtube.com/watch?v=qCLmR9-YY7o>

Biological Molecules Topic Task

Visit these websites and read the information:

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

<https://pmt.physicsandmathstutor.com/download/Biology/A-level/Notes/AQA/1-Biological-Molecules/Summary%20Notes.pdf>

Watch these videos:

<https://www.youtube.com/watch?v=H8WJ2KENIK0>

<http://ed.ted.com/lessons/activation-energy-kickstarting-chemical-reactions-vance-kite>

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Referencing Task

https://www.uhi.ac.uk/en/t4-media/one-web/university/library/how-to/UHI-mini-Student-referencing-guide-en-N_A.PDF

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Recommended reading & activities list:

Course resources

On the AQA website, you will find lots of useful resources from the specification, to maths skills support, to lists of command words and subject specific vocabulary – so you understand the words to use in exams.

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

Below is a transition to A-Level guide which will be particularly useful for you to read before starting your course.

<https://filestore.aqa.org.uk/resources/biology/AQA-7401-7402-TG.PDF>

The Royal Society of Biology website has a dedicated student section.

<https://www.rsb.org.uk/>

Careers in Biology

You may or may not already know what your future career path is but the following links introduce you to Biology-related careers.

<https://www.rsb.org.uk/careers-and-cpd/careers/career-resources/resources-for-students>

<https://www.healthcareers.nhs.uk/ps://www.rsb.org.uk/careers-and-cpd/careers/apprenticeships>

<https://www.healthcareers.nhs.uk/>

Science in the News

Keeping up-to-date with Biology in the news will help you link your studies to everyday phenomena.

https://www.bbc.co.uk/news/science_and_environment

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

Scientific Publications

The following publications will help put the biology you are learning about into context.

<https://www.hoddereducation.co.uk/magazines/magazines-extras/biological-sciences-review-extras>

<https://www.newscientist.com/article-topic/biology/>

<https://www.sciencefocus.com/>

<https://www.stem.org.uk/big-picture>

Video Links

YouTube has thousands of Biology videos. Just be careful to look at who produced the video and why because some videos distort the facts. Here are some recommended video links:

https://www.youtube.com/watch?v=6yEX_OI0xbQ&list=PLg7f-TkW11iX-hEe9JczgXEy2Foc7Siut&index=3&t=0s

<https://www.youtube.com/watch?v=pktDqFy5IcE>

Required stationary and equipment

A4 folders/ring-binders with dividers - you may prefer two - one for each teacher
Lined paper
Plastic wallets
Scientific calculator (same as you used at GCSE)
30cm ruler

Essential resources (things to bring with you every lesson)

A-Level Biology Textbook(s) - you will be issued with these when you start the course.
Lab books - bring these to all your practical lessons.
Homework which is due in.

Things to consider

There is a significant maths requirement in A Level Biology. It is important you learn and practice using the key equations that will be given to you, in order to use them in the exams.

Keep your work organised from the moment you start the course. Make sure you divide your folders up into the different topics you will learn about. This will save you a lot of time when you come to revise for topic tests or mock exams.