



BIOLOGY

STAFF

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Mr Ellis
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SUPPORT

We encourage you to seek help whenever you need it, so either come and see us or get in touch via email or Teams. C206 is open each lunchtime for you to drop in and get help.

INTRODUCTION

In biology, you have chosen an extremely rewarding subject, which will prepare you well for a wide range of future careers. Many of our Biology students go on to study medical-related degrees such as medicine, dentistry, veterinary science, radiography, pharmacology, pharmacy, optometry and various biomedical science courses. Many others follow biology-related degrees such as natural sciences, biology, biochemistry, genetics, ecology, microbiology and zoology. Whilst there is plenty of fascinating biological content to learn, it is important to remember that biology is a practical subject, and you will study a range of practical investigations and techniques. Biology is also a quantitative numerical science and so a basic level of mathematical ability is required of all students. 15% of the total exam marks will assess mathematical ability at GCSE grade 6 or above.

WHAT TO BRING FOR YOUR FIRST LESSON

You are expected to come prepared with all the basic equipment you would bring to any lesson, including your own file paper and folder. You will be provided with a printed biology 'knowledge organiser', which should be brought to every lesson in case it is needed. You should always bring a scientific calculator that you are comfortable using to every lesson. At A level, you have some freedom to organise your work files as you see fit, but as a minimum, you should invest in a large lever arch file (preferably 4-ring) with dividers to help keep work from different teachers organized. As long as you bring what is required to each lesson however, you may choose to bring work in a smaller 'day folder', to avoid having to carry everything in and out of school each day.



CLASSWORK, HOMEWORK AND INDEPENDENT STUDY

Lessons will include practical work (including assessed practicals), group work, learning activities, explanations and exam practice.

Your homework will always be to 'learn the biology'! This means that whatever work you do in between lessons, you should come to each one feeling as confident as you can with the material covered up to that point. Your teachers may however set specific tasks, including exam question practice as formal homework.

You will have formal synoptic assessments in biology once per term, which will take the form of a paper made up of exam questions which could assess any part of the course covered up to that point. You should also expect regular quizzes and other tasks, all designed to identify gaps in your knowledge and understanding that you can then work to fill!

In addition to any set homework, you **MUST** review every single lesson afterwards to ensure that you understand it, or you will quickly get left behind. This might include sorting and labelling the work in your folder, rewriting notes in your own words, writing summaries or spider diagrams, practicing drawing diagrams from memory using the knowledge organisers, etc.

A level biology is much harder than GCSE, so unfortunately you can never afford to coast, even if you did well at GCSE. Always ask your teachers if there is something you do not understand.

RESOURCES

You will be provided with printed copies of 'knowledge organisers' and key word glossaries. These are not text books, but expanded versions of the course specification, which distil each topic down to the essentials of what you need to learn. We provide access to a host of electronic resources, including HGS biology course notes and packs of exam questions with answer books. Below is a selection of textbooks and revision guides that we recommend, and whilst it is not necessary for you to purchase them all, it could be highly beneficial to have your own copy of a text book, revision guide or both. Numerous other titles are available as a quick online search will prove – just be sure to search for resources relevant to Edexcel A level Biology Specification B (9BIO)

EDEXCEL A LEVEL BIOLOGY STUDENT BOOK 1 - ISBN: 9781471807343 (£28.99)

EDEXCEL A LEVEL BIOLOGY STUDENT BOOK 2 - ISBN: 9781471807374 (£28.99)

EDEXCEL A LEVEL BIOLOGY STUDENT BOOK (Y1 AND Y2) - ISBN: 9781510469938 (£38.99)

REVISE EDEXCEL AS/A LEVEL BIOLOGY REVISION GUIDE - ISBN: 9781447989967 (£11)

CGP BOOKS - HEAD START TO A-LEVEL BIOLOGY - ISBN: 9781782942795 (£4.95)

WHAT TO DO TO PREPARE BEFORE STARTING THE COURSE

In the first couple of weeks of the autumn term you will sit a baseline assessment, which will help us to assess your knowledge and understanding of some of the fundamental areas of GCSE biology that will be developed at A level. As part of your preparation for this assessment, there will be a pack of activities for you to complete prior to your arrival. You will be able to find more information on the biology Teams group and on our website (<https://www.heckgrammar.co.uk/sixth-form/transition/preparing-sixth-form-life/>).

The start of the A-level course is always challenging, but you will find it easier if you do a little preparation over the summer, before the start of term.

The first topics in Y12 will be biological molecules (carbohydrates, lipids, proteins and nucleic acids) with one teacher and eukaryotic cells with the other. So try typing these terms into Google to find some resources you can use to learn a little about these topics. There are loads of good sites you might find, but some we like are S-cool, Nature Scitable and Bozeman Science on YouTube. The BBC website and the iPlayer are a treasure trove of resources for learning more about the natural world.

Read some websites watch some videos and maybe make a few brief notes. Don't worry if you don't understand it all; the aim is just to become familiar with some of the ideas so you can understand them more easily in your lessons. And hopefully you'll enjoy the biology and be enthused for your A-level studies!

Have a good summer, and we look forward to seeing you in September.