

Biology Department



Bourne Grammar School

A Level Biology Course Info



Mutant Jeans

The Biology Department welcome you to A Level Biology!

Dear student

Thank you for choosing to do A Level biology.

Now that you've chosen to study biology in more depth, you may be feeling rather unsure about starting your AS biology course. But don't worry – AS still builds on what you covered at GCSE. Consequently, you should already be familiar with most of the major topics and important terms covered by the year 12 biology course, for example, cell structures and the differences between plant and animal cells. You may need to refresh your memory on some of these though!

What is the AS biology course structure?

The Course

We follow OCR Biology A (course code: H420) for A Level.

More information on the course can be found at: www.ocr.org.uk

How it is taught

For year 12, you will have two teachers. One teacher will focus on module 2 which contains topics on cells and biochemistry. The other teacher will cover modules 3 and 4 covering disease, immunity, ecology and evolution. At the end of each topic, you will sit a short assessment to recap the material and test your understanding of it. You will carry out practical tasks in both sides of Biology as part of your lessons (more on this in "Practical Endorsement" below).

In year 12, the titles of the four modules are:

- Practical Skills in Biology
- Foundations in Biology
- Exchange and transport
- Biodiversity, evolution and disease

How it is assessed

You will sit end of year exams in year 12. Each exam will contain topics from both teachers and now include multiple choice questions. The results for these exams will then be used to generate projected grades which are submitted to universities.

At the end of year 13 you will sit the A Level exams. For Biology this consists of 3 papers which cover content from the whole of the course.

Practical Endorsement

The old "ISA" system (you may know these from GCSE) is now gone and has been replaced by the "Practical Skills Endorsement" (PSE). This is assessed by carrying out a series of relevant and useful techniques in the lab' in lesson time. These are not in exam conditions, so your teacher will be able to help you to perfect the various techniques you will be using – many of which apply in industry and at universities today. You will complete 6 tasks (known as PAGs) in Y12, with another 6 in Y13. At the end of year 13, the PSE is awarded as a pass/fail endorsement alongside your

final exam grade. Universities will be looking at the PSE for students who wish to go on to study science or medicine.

Key Facts about the Practical Skills Endorsement:

- 1) You must attend the six designated practical tasks (your teacher will give you notice of these) – failure to do so will mean additional catch-up time, or possibly failing to meet the standard required
- 2) The PSE does not affect your final grade – this is based entirely on the final exam
- 3) The PSE is only awarded in year 13 – if you drop Biology, you will not be certified in your practical ability.
- 4) Tasks are not carried out in exam conditions and they are not marked on the “correct answer” – your teacher will assess your ability and your understanding

Because the assessment aspect of the ISAs has now been removed, practical understanding will be testing by exam questions. Your teacher will go through plenty of examples over the year, but these questions will be designed to test your understanding of how each practical skill you learn works and how it can be adapted or applied to new situations.

To help this, you will keep a “Lab’ Book” with notes, tables, graphs and questions like those you will see in the exams. These may be self-marked, peer-marked or teacher-marked. Some tasks do not have marked questions, but require you to research or design an experiment. Lab’ Books are provided and when not in use, will be kept in school.

What are the main differences between GCSE and A Level biology?

Although there is much overlap in topics and terms, there is quite a lot of *new material* that you won’t have met before. Also, you need to go into more *detail* regarding the topics you are already familiar with and your level of *thinking and explaining* has to be deeper.

Below are some helpful hints on how to organise your workload (which will be bigger!) and how you can get ahead and stay ahead.

Notes

You will have to make notes. Unlike GCSE, you may not be told “Write this down...” – you are expected to use your initiative. Whilst most notes will still be made on the board, be aware that your teacher will often talk-through problems or concepts and you should always be on your toes and ready to jot down anything that seems important.

Exercise Books

Exercise books are provided. You will get three of them in Biology:

- One for class notes for module 2
- One for class notes in module 3 and 4
- One: for neat revision notes made throughout the year

You will be expected to make a neat copy of your class notes, combining both sides into one book of notes from which you can then revise. Yellow books will be checked at various points by your teacher.

Textbooks

You will be provided with a textbook to use at home and in lessons. It is recommended that you bring it to lessons and that you use it when writing up your notes. You will have to return the book at the end of the course, so you will not be able to write in it.

If you wish to buy an additional textbook by another publisher, several are available. However, we spend a lot of time selecting the best textbook and other publisher’s books do contain mistakes or

different wording which may just add confusion. Use any additional textbook with care! It may be more worthwhile to invest in a high-quality revision guide.

Organisation

At GCSE you can “get away” with a certain amount of disorganisation, because the content is delivered at a slower pace and is less challenging than A Level. From now on, organisation will be key to your success!

You will need to keep on top of your notes, homework and revision. You will also find that more content will be delivered in each lesson and leaving that yellow book for a week will mean a lot of work to catch up on!

To help you make the transition to A Level, your teacher will make spot-checks on organisation throughout the year. This may involve any or all of the following:

- Collecting and marking yellow books, homework and Lab' Books
- Random checks of red/blue books in lessons to ensure notes are being made properly
- Equipment checks in lessons, including textbooks, calculators etc.

What to do ASAP

Specification

The Specification is your best friend and a greatly undervalued help in passing A Level Biology. The very first thing you should do (in fact, you should do it now before you read any further) is print it off and put it with your notes.

Your teacher will set this as a task for you to do in the first few lessons and you should keep a copy in your yellow book revision notes. It may also help you to bring it to lessons and keep track of where you are. If you are doing that you can't go wrong – the Specification is a list of everything you will need to know for the exams!

<http://www.ocr.org.uk/qualifications/as-a-level-gce-biology-a-h020-h420-from-2015/>

Equipment

Exercise books and textbooks are provided. You will need to bring (to each lesson):

- Pens (ideally a few colours – at least blue, red and green)
- Pencil, eraser, sharpener and ruler
- Scientific calculator (we recommend the Casio fx 85gt plus)
- Highlighter pen
- Glue stick
- You may want to buy a CGP revision guide for OCR A Biology year 1 and 2. It is recommended by the biology department.

What should I be doing outside of lessons?

There are lots of different things you can do to help yourself to make progress at A Level. Here are a few ideas.

Study Periods

The clue is in the name! Use these timetabled periods wisely, they are a precious resource. Plan ahead, bring your yellow book, textbook, iPad/phone and your headphones. Get your head down and get some work done, ignoring distractions and procrastination! You will have time at lunch, break and after school to socialise or play games – these silent study periods are a great way to keep on top of your workload! Just remember to do manageable chunks.

A good starting point is the specification itself. Here, the key terms are listed out for you, which you can be highlighting. Then do the same throughout your notes as it is these key words that are rewarded marks in the exam.

Past Papers

Exam questions are chosen by OCR and you should plan to practise exam questions AS YOU GO ALONG, not just before you sit an exam. You will be used to doing this for GCSE only now you need to do it more often throughout the year. This will give you an idea of the types of questions OCR use.

Past papers, mark schemes and examiners' comments are all available. Your textbook has valuable past questions, tips and comments from examiners throughout – take note of these as you go along (maybe copy them out into your own notes?). The OCR website (<http://www.ocr.org.uk>) has the specification and sample mark schemes/examiners' comments. Be careful to use only OCR materials for exam preparation because different awarding bodies have slightly different definitions and content. Your textbook has been written especially for the OCR specification. It uses all the right terms and exam requirements, so make it your first point of reference.

Study Groups

Outside the silent study sessions, successful A Level students help each other along. Set up a Facebook group (or whatever media you want to use) and ask each other questions, share tips and pass on useful resources you find. Meet up in school, at home or in the park to get some revision done in an informal and enjoyable atmosphere. Nothing helps you remember a topic more than when you teach it to a friend!

Go Online – Useful Revision Sites

There are lots, though some should be treated with care (like all internet sources). Here are a few we like:

Access the schools open drive – click on the email icon on the school website and then click 'remote file access'. You need a school account which can be given from the IT support room.

<https://mrsmillersblog.wordpress.com/a2-biology/>

<https://biogishumerus.wordpress.com/>

Crash course biology – youtube channel

Ask Questions

Lessons are **not** lectures. If you don't understand something, ask. If you want to know more about something, ask. If you ask questions, you will reinforce your understanding. If you sit there and keep silent, you will miss out.

Answer Questions

Teachers ask questions to help you broaden your understanding, test yourself and find out what you do and don't know. Sitting silently implies full understanding. Make sure you answer *at least* one question every lesson.

ASK FOR HELP!!

Your teacher is there to help you and will gladly set time aside to help with any problem areas or just to offer a different way of looking at a topic. However, **you have to approach them** and ask for that help.

HINT: a little politeness in your request and going to the teacher in plenty of time will make them a lot more willing to give time up to help you out!

Other top tips

Missed Lessons

Missing a lesson at A Level can mean missing out on a key principle that you will need in order to follow the next lessons. If you know you are going to miss a lesson, let your teacher know – they may be able to pass some resources to you, depending on how close to the lesson you find out.

If you have missed a lesson for any reason, here are the Dos and Don'ts of catching up:

DO go to see your teacher in person (emailing it in looks bad, unless you're still off school)

DO be polite – remember it is **your responsibility** to catch up on the work you miss

DO act quickly – you should go to see your teachers **as soon as you are back in school** – there is nothing more frustrating than a pupil walking into a lesson and announcing that they missed the last lesson's work!

DON'T ask for a copy of the notes – most A Level lessons will involve written notes on the board.

You should copy notes from a classmate, but teachers won't always have a PowerPoint set of notes to pass on to you.

DON'T just ignore it – one missed lesson could be a disaster at exam time

If you happen to miss a compulsory **Practical Skills Lesson**, you will have to complete some additional catch-up work in order to pass the skills covered in that task. You must make every effort to attend these lessons – they should certainly take priority over trips, visits, lectures etc. that you may be attending outside school. If you are organised, this should not be a problem for you!

Homework

It happens. Do it, do it well and do it **on time**. You should have had plenty of chance to practice this by now!

Punctuality

Your teachers write your UCAS references. Comments on punctuality will be included. Being a Sixth Former allows you some additional freedoms and privileges – wandering late to lessons is **not** one of them!

Safety

You will need to work safely in the lab' as it counts towards the Practical Skills Endorsement. Irresponsible, reckless or dangerous behavior in the lab' can lead to serious injury with some of the chemicals we will be using. Your teacher will discuss safety with you at the start of the year and before each practical. Any students endangering themselves or others will fail the "Safe Working" aspect of the PSE, resulting in them not being endorsed.

**GOOD LUCK IN YOUR STUDIES – WE HOPE YOU
ENJOY THE COURSE!**