



HOW TO REVISE BIOLOGY

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Biology, much like the other Group 4 subjects, is commonly perceived as one of the most challenging parts of the IB diploma. Biology is a subject which many struggle with, as it requires vast amounts of memorisation and understanding of difficult concepts. A deeper understanding of the underlying biological concepts is what distinguishes the students scoring 6s or 7s.

THIS GUIDE IS DESIGNED TO HELP YOU TACKLE YOUR BIOLOGY REVISION IN AN EXAM FOCUSED WAY, TO HELP YOU UNDERSTAND HOW TO MAXIMISE YOUR SCORES AND TO SHOW EXAMINERS THAT YOU HAVE NOT ONLY MEMORISED THE SYLLABUS – BUT THAT YOU HAVE UNDERSTOOD IT.

PAPER 1: ASSESSMENT FORMAT

This exam constitutes 20% of your overall Biology grade and is based on multiple choice questions, where you will be asked to select one answer out of a list of four possible answer options. For Standard Level, you will be given 30 questions to complete in 45 minutes, and for High Level, you will be given 40 questions to complete in 1 hour.

Paper 1 assesses superficial knowledge of the core topics in biology (and AHL material for HL students), with most questions asking you to identify correct definitions or recognise small details covered in the syllabus. Calculators are not allowed.

Revision tips



KNOW THE SMALL SYLLABUS DETAILS

Make sure that you have a sound grasp of the entire syllabus, with attention to small details. Sometimes a peak at the “Teachers notes” may also help. This paper relies heavily on word recognition and spotting key terms in the options which match the question. Sometimes different answer options only differ by one small, but vital word. Learn to recognize them and study them correctly



TIME YOURSELF AS YOU'RE DOING PAST PAPERS AND GIVE YOURSELF LESS TIME THAN YOU WILL HAVE FOR THE ACTUAL EXAM.





E.g. if you're doing Biology HL – give yourself 45 minutes to complete the 40 questions, if you're on SL – try finishing it in 30 minutes. This will prevent you from running out of time in the real exam and will allow you to get accustomed to the time pressure of exams.



PAST PAPERS, PAST PAPERS, PAST PAPERS...

Make sure to understand why each answer option is correct/incorrect and try doing past papers by topic and not just entire papers. Apart from giving you a feel for what type of questions to expect in the exam, practicing past papers has the additional bonus that you might reencounter similar questions in your real exam! It is no secret that although subtly rephrased, the IBO likes to recycle exam questions!

Tricks for your Exam

-  **READ THE QUESTION CAREFULLY,**
paying particular attention to questions including the words “not” or “except”.
-  **READ ALL OF THE OPTIONS BEFORE CHOOSING ONE.**
If you are unsure, try to eliminate answers which are obviously wrong to narrow down the possibilities.
-  **DON'T RUSH, BUT ALSO DON'T SPEND TOO MUCH TIME ON INDIVIDUAL QUESTIONS.**
Don't panic if you don't know something or are unsure of an answer. Just mark them (or note down the question number in a ranking of “unsureness”) and come back to them once you have gone through the entire paper
-  **ANSWER EVERY QUESTION.**
No marks are deducted for incorrect answers, so worst case, just guess! The chance of still receiving the mark is 25% (or higher, if you manage to eliminate few answer options)

PAPER 2 AND 3

Paper 2 and Paper 3 are structured in a similar way, but test different parts of your syllabus. Make sure to bring a calculator and ruler to this paper.

Paper 2:

Paper 2 tests knowledge of core concepts for SL students, and the core and AHL material for HL students. This paper assesses more comprehensive knowledge and understanding than Paper 1 and constitutes 40% of your overall mark for SL students and 36% for HL students, making it the single most important assessment in your biology course. The time allotted for this exam is 1 hour and 15 minutes and 2 hours and 15 minutes for SL and HL students respectively.

It consists of two sections:

SECTION A

Here you will be given one data-based question with multiple figures and several short answer questions based on factual recall. HL students will be given questions on AHL topics in addition to the core.

SECTION B

here, SL students will be given one extended-response question on the core (from a choice of three). HL students will be given two extended-response questions on the core and AHL (from a choice of four).

Paper 3:





This paper also consists of two parts: Section A, consisting of two to three short answer questions on analysis, experimental skills and techniques, and Section B, involving short-answer and extended-response questions from one option studied. Both SL and HL students are given 1 hour time for this paper. The weighting of this paper is 20% for SL students and 24% for HL students.

Paper 2:

This paper also consists of two parts: Section A, consisting of two to three short answer questions on analysis, experimental skills and techniques, and Section B, involving short-answer and extended-response questions from one option studied. Both SL and HL students are given 1 hour time for this paper. The weighting of this paper is 20% for SL students and 24% for HL students.

SECTION A

The data-based questions often tend to be described as being the most difficult and “scary” part of the entire paper, stretching out for many pages and requiring analysis and interpretation of previously unseen data. That being said, this part of the exam can however be very well prepared, as the questions asked tend to be very similar.

-  **Become a pro at knowing what the examiners want to read.**
Especially for the short answer questions, doing tons of past papers can give you a massive advantage. Not only are the questions frequently repeated, it's also helpful to get used to what the markscheme wants you to include.
Don't just do the papers. Instead, become a detective and analyse the markscheme to try and find out what the marking points are for each type of question. This is especially important for the data-based section, where the questions tend to be very similar (e.g. describing/analysing trends, comparing and contrasting different figures etc.), and you just have to apply it to the figures given.
-  **Familiarize yourself with the IB command terms for biology**
(can be found [here](#) - page 166-167). Being familiar with these terms and what they entail is vital to not lose marks for not answering the question or wasting time writing elaborate answers for questions that only require one short sentence. For the data-based questions, especially the “identify”, “describe”, and “compare and contrast” are used frequently.
-  **Look at the number of marks provided to find out the level of detail required.**
This will not only ensure you give enough marking points to get full marks but also save you loads of precious time.
-  **There are no points given for the eloquence of your answer.**
Bullet points or short sentences are fine, as long as your answer is understandable.

Specifically for the data-based:




Refer to data when possible (don't forget units).

This small detail can make the difference

Look at all parts of the figure (labels, scales, axes, image source etc.)
and underline key points in the text

SECTION B

It is advisable to write these answers in continuous prose, although sometimes ideas are better demonstrated in a table or in a thoroughly annotated diagram. You may be given the option to choose the question you want to answer. Here, it is vital that you read the whole question before choosing which one to answer, to make sure you pick the one where you're likely to pick the most points.

-  **As with all other parts, past papers are your friend.**
Compile a list of different essay questions and work through them. You don't have to write out the whole essay, just the outlines are sufficient
-  **Pay attention to the command terms and make sure to answer each part of the question.**
-  **Plan out your essay before starting to write.**
On a scrap piece of paper, organise your ideas to include all the relevant information in a logical sequence.

Paper 3:

- ✓ Compile a list of all practicals mentioned in the syllabus
- ✓ Make sure that you understand the key concepts of the syllabus for whatever option you choose. Ask teachers, tutors and peers to explain if anything is unclear.
- ✓ Once you feel comfortable about these concepts, try to explain them to someone else – teaching others will help your learning and identify gaps in your knowledge.

Tricks for the Exam

No matter how stressed you are, always make sure your handwriting is legible and dark enough

SECTION A

- Leave yourself enough time for section B
- If you are struggling to understand a figure, sometimes the URL of the figure can help (found underneath) E.g.
- Points will not be deducted for “wrong” statements, so when in doubt, give as much information as possible. This will increase your chances of writing something the markscheme is after.

SECTION B

- Take a moment to think about answers and potential marking points for each question before deciding on which of the essay questions to choose

I hope you have found this useful.
If you'd like any more help with IB Biology, be sure to check out
our Online Private Tutoring with our world class tutors



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Education

ONLINE PRIVATE TUITION

RECEIVE ONE-ON-ONE
SUPPORT FROM THE
COMFORT OF YOUR OWN
HOME. SUPPORT WHENEVER
AND WHEREVER YOU NEED!

SUMMER COURSES

Whenever you are about to start your first or final year of the IB, use the summer to get ahead and on top of your IB subjects!

REVISION COURSES

A helping hand when it matters the most to boost your grades! Held strategically during the Winter and Easter break before

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