

## Switching to OCR B from Pearson (Edexcel) A

### Introduction

We are really excited about our GCE Biology B qualification. Whether taking on the AS or the full A Level, this fantastic course is a great qualification for those with an interest in the subject. Why choose Biology B?

- The 'Big Ideas' of Biology are covered
- Popular and engaging topics from previous Biology and Human Biology qualifications are included
- Biology B is enjoyable to teach and learn, giving students the essentials for biology-related higher education courses as well as many transferable, marketable skills
- There are many opportunities for 'hands-on' practical, linking to our flexible practical assessment model
- The biological topics are presented in a clear and logical linear order with practical and maths opportunities highlighted.

### Our offer

- Our A Level Biology team, Richard and Katherine, are passionate about biology and education. With biological research and teaching experience, they are fully committed to supporting centres' delivery of Biology B.
- We have produced a wide range of [support materials](#), from our handbooks (covering practical, maths and drawing skills) to delivery guides, lesson elements, practical activities, candidate exemplars and more.
- Join our conversation on the [OCR Community](#) and [@ocr\\_science](#) to talk about and share good practice.

[#PositiveAboutPractical](#)



## Key differences

OCR Biology B	Pearson (Edexcel) A
<b>Flexible practical</b> assessment allows you to use your own practical activities or select from our suggested activities	Fixed set of 18 practical activities you have to deliver
Practical skills take centre stage, detailed in full at the start of the specification in a separate module for <b>clarity</b> and prominence	Required practical activities listed in the specification
All <b>28 maths skills</b> covered in our free maths skills handbook and further supported with online resources	Subset of skills covered by student and teacher guides



## Content

The content within the [OCR Biology B specification](#) covers the ‘Big Ideas’ of biology in engaging contexts. The logical progression supports AS level co-teaching and linear A level.

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<p><b>Module 1: Practical skills</b> Planning, implementing, analysis and evaluation Plus all the skills to be covered in the Practical Endorsement</p>	<p>The same practical skills, as mandated by the DfE, are listed in appendix 5 of the Edexcel A specification</p>
<p><b>Module 2: Cells, chemicals for life, transport and gas exchange</b></p> <ul style="list-style-type: none"> <li>• Cells and microscopy</li> <li>• Water and its importance in plants and animals</li> <li>• Proteins and enzymes</li> <li>• Nucleic acids</li> <li>• The heart and monitoring heart function</li> <li>• Transport systems in mammals</li> <li>• Transport systems in plants</li> <li>• Gas exchange in mammals and plants</li> </ul>	<p><b>1. Lifestyle, Health and Risk:</b> lipids and saccharides, cardiovascular <b>2. Genes and Health:</b> membranes, proteins, nucleic acids, genes, gas exchange <b>3. Voice of the genome:</b> cell structure <b>4. Biodiversity and Natural Resources:</b> vascular tissue in plants</p>
<p><b>Module 3: Cell division, development and disease control</b></p> <ul style="list-style-type: none"> <li>• The developing cell</li> <li>• The developing individual</li> <li>• The development of species</li> <li>• Pathogenic microorganisms</li> <li>• The immune system</li> <li>• Controlling communicable disease</li> <li>• The cellular basis of cancer and treatment</li> <li>• Respiratory diseases and treatment</li> </ul>	<p><b>3. Voice of the genome:</b> mitosis, meiosis, genes <b>6. Immunity, Infection and Forensics</b> <b>4. Biodiversity and Natural Resources:</b> biodiversity, classification</p>



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<p><b>Module 4: Energy, reproduction and populations</b></p> <ul style="list-style-type: none"> <li>• Cellular respiration</li> <li>• Metabolism and exercise</li> <li>• Fertility and assisted reproduction</li> <li>• Effects of ageing on reproduction</li> <li>• Photosynthesis, food production and management of the environment</li> <li>• The impact of population increase</li> <li>• Plant reproduction</li> </ul>	<p><b>5. On the Wild Side:</b> photosynthesis, ecosystems</p> <p><b>7. Run for your Life:</b> respiration, muscles</p>
<p><b>Module 5: Genetics, control and homeostasis</b></p> <ul style="list-style-type: none"> <li>• Patterns of inheritance</li> <li>• Population genetics and epigenetics</li> <li>• Gene technologies</li> <li>• The nervous system</li> <li>• Monitoring visual function</li> <li>• Effects of ageing on nervous system</li> <li>• Homeostasis</li> <li>• Hormonal control of blood glucose</li> <li>• Kidney function and malfunction</li> </ul>	<p><b>2. Genes and Health:</b> patterns of inheritance</p> <p><b>4. Biodiversity and Natural Resources:</b> natural selection, Hardy Weinberg</p> <p><b>7. Run for your Life:</b> homeostasis</p> <p><b>8. Grey matter</b></p>
<p><b>Appendix 5d: Mathematical requirements</b></p> <ul style="list-style-type: none"> <li>• Arithmetic and numerical computation</li> <li>• Handling data</li> <li>• Algebra</li> <li>• Graphs</li> <li>• Geometry and trigonometry</li> </ul>	<p><b>Appendix 6: Mathematical skills and exemplifications</b></p> <ul style="list-style-type: none"> <li>• Arithmetic and numerical computation</li> <li>• Handling data</li> <li>• Algebra</li> <li>• Graphs</li> <li>• Geometry and trigonometry</li> </ul>



## Assessment

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<p><b>AS Paper 1: Foundations of Biology Modules 1-3</b> 50% of AS Written paper 1 hour 30 minutes 70 marks</p> <p>Section A multiple choice questions, 20 marks. Section B short structured questions, covering problem solving, calculations, practical and theory, 50 marks.</p>	<p><b>AS Paper 1: Lifestyle, Transport, Genes and Health, Topics 1 and 2</b> 50% of AS Written paper 1 hour 30 minutes 80 marks</p> <p>Multiple-choice, short open, open-response, calculations and extended writing questions.</p>
<p><b>AS Paper 2: Biology in Depth, Modules 1-3</b> 50% of AS Written paper 1 hour 30 minutes 70 marks</p> <p>Short structured questions and extended response questions, problem solving, calculations, practical and theory.</p>	<p><b>AS Paper 2: Paper 2: Development, Plants and the Environment, Topics 3 and 4</b> 50% of AS Written paper 1 hour 30 minutes 80 marks</p> <p>Multiple-choice, short open, open-response, calculations and extended writing questions</p>
<p><b>A Level Paper 1: Fundamentals of Biology Modules 1-5</b> 41% of A level Written paper 2 hours 15 minutes 110 marks</p> <p>Section A multiple choice questions, 30 marks. Section B short structured questions, and extended response questions, problem solving, calculations, practical and theory 80 marks.</p>	<p><b>A Level Paper 1: The Natural Environment and Species Survival, Topics 1-6</b> 33% of A level Written paper 2 hours 100 marks</p> <p>Multiple choice, short open, open-response, calculations and extended writing questions.</p>



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<p><b>A Level Paper 2: Scientific Literacy in Biology</b> <b>Modules 1-5</b> 37% of A level Written paper 2 hours 15 minutes 100 marks</p> <p>Advance notice article (underpins 20-25 marks). Short structured questions and extended response questions, problem solving, calculations, practical and theory.</p>	<p><b>A Level Paper 2: Energy, Exercise and Co-ordination, Topics 1-4, 7 and 8</b>  33% of A level Written paper 2 hours 100 marks</p> <p>Multiple choice, short open, open-response, calculations and extended writing questions.</p>
<p><b>A Level Paper 3: Practical Skills in Biology</b> <b>Modules 1-5</b> 22% of A level Written paper 1 hour 30 minutes 60 marks</p> <p>Short structured questions and extended response questions, problem solving, calculations, practical and theory.</p>	<p><b>A Level Paper 3: General and Practical Applications in Biology, Topics 1-8</b>  33% of A level Written paper 2 hours 100 marks</p> <p>Pre-release scientific article. Synoptic questions.</p>



## Want to switch to OCR?

If you're an OCR-approved centre, all you need to do is download the specification and start teaching.

Your exams officer can complete an [intention to teach form](#) which enables us to provide appropriate support to them. When you're ready to enter your students, you just need to speak to your exams officer to:

1. Make estimated entries by 10 October so we can send you any early release materials, prepare the question papers and ensure we've got enough examiners.
2. Make final entries by 21 February

If you are not already an OCR-approved centre please refer your exams officer to the [centre approval section](#) of our admin guide.

## Practical Endorsement Administration (A Level only)

The requirements for the practical endorsement have been set by the Department for Education and Ofqual working with all awarding bodies to ensure a common approach. Just as when following the Edexcel A A Level Biology qualification, your A Level students studying OCR Biology B will need to demonstrate to you, their teacher(s), that they are consistently and routinely competent in each of the skills and techniques defined for A Level Biologists.

You will need to:

- Keep records of carrying out practical activities as well as your assessment of competence of each of your students in each of these skills and techniques. This can be done, if you wish, using our OCR tracker spreadsheet.
- Register the name of a 'lead teacher' who will act as the contact point for arranging a monitoring visit (organised centrally through the JCQ). You will need to indicate that you are teaching the OCR Biology B qualification. Your exams officer will have received an [email with details](#) of how to do this. If and when a monitoring visit takes place it will be done by an OCR-appointed monitor applying the criteria agreed across all awarding organisations.

Students need to keep records of their practical work, which can be done in whatever format best suits you and your students, be it a lab book, a loose leaf folder or an electronic record. Help and guidance are available from our [Positive about practical page](#).



## Next steps

1. Familiarise yourself with the specification, sample assessment materials and teaching resources on the [OCR Biology B](#) qualification page of the OCR website.
2. Browse the [online delivery guides](#) for teaching ideas and use the [Scheme of Work builder](#) to create your personal scheme of work.
3. [Get a login](#) for our secure extranet, [Interchange](#) – allows you to access the latest past/practice papers and use our results analysis service, [Active Results](#).
4. Sign up to receive [subject updates](#) by email.
5. Sign up to attend a [training event](#) or take part in webinars on specific topics running throughout the year and/or our Q&A webinar sessions every half term.
6. Attend one of our free [teacher network events](#) that are run in each region every term. These are hosted at the end of the school day in a school or college near you, with teachers sharing best practice and subject specialists on hand to lead discussion and answer questions.

