

## Switching to OCR B from AQA Human Biology

### 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	AQA Human Biology
A fully accredited A Level Biology qualification covering the whole range of biological topics and recognised as a key qualification ('facilitating subject') by universities, other HE providers and employers	Human Biology is not being reformed in the latest round of A Level development. This is an Ofqual decision and affects all exam boards. The existing course will have its final exam series in the summer of 2018 (for centres already offering the course) or 2017 (for centres not previously offering the course)
Flexible practical assessment allows you to use your own practical activities or select from our suggested activities	Practical skills assessments in Yr12 and Yr13
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 investigative and practical skills described at the end of each unit in the specification
A section of <b>multiple choice questions</b> in the exams to allow breadth of coverage	No multiple choice questions
No essay question in the assessments	One essay from a choice of two titles in the Unit 5 A2 assessment
All <b>28 maths skills</b> covered in our free maths skills handbook and further supported with online resources	Mathematical requirements listed in section 3.9 of the specification
All the big ideas of biology covered	Exclusive focus on topics related to human biology



## 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>Required investigative and practical skills are described at the end of each unit in the specification. In addition Units 3 and 6 specifically describe the requirements of the Practical Skills Assessments</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>Unit 1 The body and its diseases</b></p> <ul style="list-style-type: none"> <li>• We are what we eat</li> <li>• Enzymes</li> <li>• Cystic fibrosis</li> <li>• Diseases linked to lifestyle – The heart</li> </ul> <p><b>Unit 2 Humans – their origins and adaptations</b></p> <ul style="list-style-type: none"> <li>• The information of life</li> </ul>
<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> </ul>	<p><b>Unit 1 The body and its diseases</b></p> <ul style="list-style-type: none"> <li>• Microorganisms</li> <li>• How the body fights infectious disease</li> </ul> <p><b>Unit 2 Humans – their origins and adaptations</b></p> <ul style="list-style-type: none"> <li>• Cell division</li> <li>• Where we fit in the world</li> <li>• Adaptations to exercise</li> <li>• The Future of Infectious Disease Control</li> </ul>



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<ul style="list-style-type: none"> <li>Respiratory diseases and treatment</li> </ul>	
<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>Unit 2 Humans – their origins and adaptations</b></p> <ul style="list-style-type: none"> <li>We have changed our environment</li> </ul> <p><b>Unit 4 Bodies and cells in and out of control</b></p> <ul style="list-style-type: none"> <li>IVF</li> <li>Fight or flight</li> <li>Hypothermia and diabetes</li> </ul> <p><b>Unit 5 The air we breathe, the water we drink, the food we eat</b></p> <ul style="list-style-type: none"> <li>Human activities can damage ecosystems and create new ones</li> <li>Plants can reduce the impact of the use of fossil fuels on climate change</li> </ul>
<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>Unit 4 Bodies and cells in and out of control</b></p> <ul style="list-style-type: none"> <li>Genetic variation and inheritance</li> <li>New genes for old</li> <li>Drugs can affect how we perceive the world around us</li> <li>Hypothermia and diabetes</li> </ul> <p><b>Unit 5 The air we breathe, the water we drink, the food we eat</b></p> <ul style="list-style-type: none"> <li>Human impacts on evolution</li> <li>People change communities</li> </ul>
<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> </ul>	<p><b>Section 3.9: Mathematical requirements</b></p> <ul style="list-style-type: none"> <li>Arithmetic and computation</li> <li>Handling data</li> <li>Algebra</li> <li>Graphs</li> </ul>



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<ul style="list-style-type: none"><li>• Geometry and trigonometry</li></ul>	<ul style="list-style-type: none"><li>• Geometry and trigonometry</li></ul>
<p><b>Note: although the topic areas are very similar the details of what is required differ.</b></p> <p><b>Please read appendix 5d in the Biology B specification carefully to ensure your students are fully prepared for their assessments.</b></p>	



## Assessment

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<p><b>AS Paper 1: Foundations of Biology</b> <b>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 Unit 1: The body and its diseases</b> 40% of AS Written paper 1 hour 30 minutes 80 marks</p> <p>7 - 10 short answer questions plus 1 longer question involving comprehension/case study.</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 Unit 2: Humans – their origins and adaptations</b> 40% of AS Written paper 1 hour 30 minutes 80 marks</p> <p>7 - 10 short answer questions plus 1 longer question involving comprehension/case study.</p>
	<p><b>AS Unit 3: Investigative and practical skills</b> 20% of AS Controlled assessment 50 marks</p>



OCR Biology B	AQA Human Biology
<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>A2 Unit 4: Bodies and cells in and out of control</b> 20% of A Level Written paper 2 hours 90 marks</p> <p>9 - 11 short answer questions plus 1 longer question involving methodology and data interpretation.</p>
<p><b>A Level Paper 2: Scientific Literacy in Biology 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>A2 Unit 5: Bodies and cells in and out of control</b> 20% of A Level Written paper 2 hours 90 marks</p> <p>7 - 9 short answer questions plus 1 longer question with a choice of 2 essay topics.</p>
<p><b>A Level Paper 3: Practical Skills in Biology 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>A2 Unit 6: Investigative and practical skills</b> 10% of A Level Controlled assessment 50 marks</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. 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.

