Switching to OCR A from Pearson (Edexcel) A

Introduction

We are really excited about our GCE Biology A 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 A?

- The 'Big Ideas' of Biology are covered
- The topics are selected and structured to underpin the knowledge and understanding needed for the next generation of biologists
- Biology A 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.

Textbook comparison

We have not included a textbook comparison in this switching document as there are a number of textbooks available for each exam board's qualifications, and the order and organisation of content within these textbooks can vary. However, similarities in content across exam boards mean that it is possible to use any textbook for the core content of any board's qualifications. The specification can be used to identify relevant content, as well as that which is not required for a specific qualification. If you need further clarification on any specific content, you can email our Subject Advisor team at science@ocr.org.uk.

Support from OCR

We offer a range of support to teachers of our qualifications. This includes:

- A dedicated Subject Advisor team, with teaching and assessment experience, available to answer your queries and support your delivery of our qualifications. You can contact us by email at science@ocr.org.uk or by phone on 01223 553998.
- Monthly newsletters highlighting new resources, CPD courses, and other news about our qualifications.

- A wide range of support materials, including handbooks covering practical and mathematical skills, delivery guides, lesson elements, practical activity suggestions, candidate exemplar resources, and more.
- Free access to ExamBuilder, our mock assessment service that allows you to create your own bespoke assessments.
- Termly regional Science Teacher Networks, giving you the opportunity to meet with other teachers and our Subject Advisors.
- CPD courses, including courses for teachers new to teaching our qualifications and courses on outcomes from previous examination series to help inform your teaching.
- You can also follow and interact with our Subject Advisors on Twitter (@ocr_science).

Key differences

OCR Biology A	Pearson (Edexcel) A
Flexible practical 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 **clarity** and prominence	Required practical activities listed in the specification
A **foundations** module establishing biochemical and cellular concepts	Biochemistry and cell biology introduced across several topics
All **28 maths skills** covered in our free maths skills handbook and further supported with our online 'Maths for Biology' resources	Subset of skills covered by student and teacher guides

Content

The content within the OCR Biology A specification covers the 'Big Ideas' of biology and will be very familiar. We've laid it out to support the co-teaching of the AS and A level and provide a logical linear progression through the A level.

OCR Biology A	Pearson (Edexcel) A
Module 1: Practical skills Planning, implementing, analysis and evaluation Plus all the skills to be covered in the Practical Endorsement	The same practical skills, as mandated by the DfE, are listed in appendix 5 of the Edexcel A specification
Module 2: Foundations in Biology • Cell structure • Biological molecules • Nucleotides and nucleic acids • Enzymes • Biological membranes • Cell division, diversity and organisation	**1. Lifestyle, Health and Risk:** lipids and saccharides **2. Genes and Health:** membranes, proteins, nucleic acids, genes **3. Voice of the genome:** cell structure, mitosis, meiosis, genes **4. Biodiversity and Natural Resources:** plant cells
Module 3: Exchange and Transport • Exchange surfaces • Transport in animals • Transport in plants	**1. Lifestyle, Health and Risk:** cardiovascular **2. Genes and Health:** gas exchange **4. Biodiversity and Natural Resources:** vascular tissue in plants
Module 4: Biodiversity, evolution and disease • Communicable diseases, disease prevention and the immune system • Biodiversity • Classification and evolution	**4. Biodiversity and Natural Resources**: biodiversity, classification **5. On the Wild Side:** evolution **6. Immunity, Infection and Forensics**

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Module 5: Communication, homeostasis and energy • Communication and homeostasis • Excretion • Neuronal communication • Hormonal communication • Plant and animal responses • Photosynthesis • Respiration	**5. On the Wild Side:** photosynthesis **7. Run for your Life:** respiration, muscles, homeostasis **8. Grey matter:** animal and plant responses
Module 6: Genetics, evolution and ecosystems • Cellular control • Patterns of inheritance • Manipulating genomes • Cloning and biotechnology • Ecosystems • Populations and sustainability	**3. Voice of the genome:** genetic control **4. Biodiversity and Natural Resources:** genetics **5. On the Wild Side:** ecosystems **8. Grey matter:** genetic engineering
Appendix 5d: Mathematical requirements • Arithmetic and numerical computation • Handling data • Algebra • Graphs • Geometry and trigonometry	**Appendix 6: Mathematical skills and exemplifications** • Arithmetic and numerical computation • Handling data • Algebra • Graphs • Geometry and trigonometry

Assessment

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AS Paper 1: Breadth in Biology, Modules 1-4 50% of AS Written paper 1hr 30 minutes 70 marks Section A multiple choice questions, 20 marks. Section B short structured questions, covering problem solving, calculations, practical and theory, 50 marks.	**AS Paper 1: Topics 1-2** 50% of AS Written paper 1hr 30 minutes 80 marks 74 marks short answer questions, 6 marks comprehension.
AS Paper 2: Depth in Biology, Modules 1-4 50% of AS Written paper 1hr 30 minutes 70 marks Short structured questions and extended response questions, problem solving, calculations, practical and theory.	**AS Paper 2: Topics 3-4** 50% of AS Written paper 1 hr 30 minutes 80 marks 74 marks short answer questions, 6 marks extended response.
A Level Paper 1: Biological processes, Modules 1, 2, 3 & 5 37% of A level Written paper 2 hours 15 minutes 100 marks Section A multiple choice questions, 15 marks. Section B short structured questions, and extended response questions, problem solving, calculations, practical and theory 85 marks.	**A Level Paper 1: Topics 1-6 & practical skills** 33.33% of A level Written paper 2 hours 100 marks 88 marks short and long answer questions, 12 marks extended answers.

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A Level Paper 2: Biological diversity, Modules 1, 2, 4 & 6 37% of A level Written paper 2 hours 15 minutes 100 marks Section A multiple choice questions, 15 marks. Section B short structured questions and extended response questions, problem solving, calculations, practical and theory 85 marks.	**A Level Paper 2: Topics 1-4 and 7-8 practical skills** 33.33% of A level Written paper 2 hours 100 marks 88 marks short and long answer questions, 12 marks extended answers.
A Level Paper 3: Unified Biology, Modules 1-6 26% of A level Written paper 1 hour 30 minutes 70 marks Short structured questions and extended response questions, problem solving, calculations, practical and theory.	**A Level Paper 3: Topics 1-8 & practical skills** 33.33% of A level Written paper 2 hours 100 marks 70 marks structured questions and extended answers. 30 marks questions based on pre-release scientific article.

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 expression of interest 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 A 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.
- Designate a 'Lead Teacher' who will need to make sure that they have completed the online Lead Teacher training
- Email us at science@ocr.org.uk to let us know you've started teaching the qualification. This will make sure we have up-to-date information on your centre for planning monitoring visits. When a monitoring visit takes place at your centre for Biology it will be carried out by an OCR-appointed monitor applying the criteria agreed across all awarding organisations. Up-to-date details on the monitoring process are available on the Positive about practical page.

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 A 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. Teach Cambridge 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 advisors on hand to lead discussion and answer questions.
7. Follow us on Twitter (@ocr_science) where you can have discussions with other teachers and OCR Subject Advisors, and where new resources are developed and posted first.

