Switching to OCR A from OCR B

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 both qualifications, and the order and organisation of content within these textbooks can vary. However, similarities in content across the qualifications mean that it is possible to use any textbook for the core content of either. 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.

- An online scheme of work builder which helps you create a bespoke scheme of work using the extensive range of resources we have provided for each specification.
- 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 similarities

OCR Biology A	OCR Biology B
Flexible practical assessment allows you to use your own practical activities or select from our suggested activities	
Practical skills take centre stage, detailed in full at the start of the specification in a separate module for **clarity** and prominence	
A section of **multiple choice questions** in the exams to allow breadth of coverage	
No essay questions – shorter extended response questions throughout the exams to allow a range of topics to be assessed	
All **28 maths skills** covered in our free maths skills handbook and further supported with our online 'Maths for Biology' resources	

Key differences

OCR Biology A	OCR Biology B
A content-led approach. The specification is divided into topics, each covering different key concepts of biology.	**A context-based approach.** Ideas are introduced within relevant and interesting settings that help students to anchor their conceptual knowledge of the range of biological topics required at A Level.
Split into six teaching modules: Modules 1 to 4 constitute the stand-alone AS Level qualification; Modules 1 to 6, combined with the Practical Endorsement, constitute the full A Level.	**Split into five teaching modules**: Modules 1 to 3 constitute the stand-alone AS Level qualification; Modules 1 to 5, combined with the Practical Endorsement, constitute the full A Level.
The full A level is terminally assessed by three exam papers. There are **no inserts in the examinations**.	The full A level is terminally assessed by three exam papers. There is an emphasis on the development of biological literacy skills, which are assessed at the end of the course using an Advance Notice article. See the 'assessment' section of this document for more details.

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	OCR Biology B
Module 1: Practical skills Identical to Biology B content.	**Module 1: Practical skills** Identical to Biology A content.
Module 2: Foundations in Biology • Cell structure • Biological molecules • Nucleotides and nucleic acids • Enzymes • Biological membranes • Cell division, diversity and organisation	**Module 2: Cells, chemicals for life, transport and gas exchange** • Cells and microscopy • Water and its importance in plants and animals • Proteins and enzymes • Nucleic acids • The heart and monitoring heart function • Transport systems in mammals • Gas exchange in mammals and plants • Transport systems in plants
Module 3: Exchange and Transport • Exchange surfaces • Transport in animals • Transport in plants	**Module 3: Cell division, development, and disease control** • The developing cell: cell division and cell differentiation • The developing individual: meiosis, growth and development • The development of species: evolution and classification • Pathogenic microorganisms • The immune system • Controlling communicable diseases • The cellular basis of cancer and treatment • Respiratory diseases and treatment

OCR Biology A	OCR Biology B
Module 4: Biodiversity, evolution and disease • Communicable diseases, disease prevention and the immune system • Biodiversity • Classification and evolution	**Module 4: Energy, reproduction and populations** • Cellular respiration • Metabolism and exercise • Fertility and assisted reproduction • The effects of ageing on the reproductive system • Photosynthesis, food production and management of the environment • The impact of population increase • Plant reproduction
Module 5: Communication, homeostasis and energy • Communication and homeostasis • Excretion • Neuronal communication • Hormonal communication • Plant and animal responses • Photosynthesis • Respiration	**Module 5: Genetics, control and homeostasis** • Patterns of inheritance • Population genetics and epigenetics • Gene technologies • The nervous system and the identification and consequences of damage • Monitoring visual function • The effect of ageing on the nervous system • The principles and importance of homeostasis • The hormonal control of blood glucose and the management of diabetes • Kidney functions and malfunctions
Module 6: Genetics, evolution and ecosystems • Cellular control • Patterns of inheritance • Manipulating genomes • Cloning and biotechnology	

OCR Biology A	OCR Biology B
• Ecosystems • Populations and sustainability	
Appendix 5d: Mathematical requirements • Arithmetic and numerical computation • Handling data • Algebra • Graphs • Geometry and trigonometry	**Appendix 5d: Mathematical requirements** • Arithmetic and numerical computation • Handling data • Algebra • Graphs Geometry and trigonometry

Assessment

OCR Biology A	OCR Biology B
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: Foundations of Biology Modules 1-3** 50% of AS Written paper 1 hour 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 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: Biology in Depth, Modules 1-3** 50% of AS Written paper 1 hour 30 minutes 70 marks Short structured questions and extended response questions, problem solving, calculations, practical and theory.
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: Fundamentals of Biology Modules 1-5** 41% of A level Written paper 2 hours 15 minutes 110 marks Section A multiple choice questions, 30 marks. Section B short structured questions, and extended response questions, problem solving, calculations, practical and theory 80 marks.
A Level Paper 2: Biological diversity, Modules 1, 2, 4 & 6 37% of A level Written paper 2 hours 15 minutes 100 marks	**A Level Paper 2: Scientific Literacy in Biology Modules 1-5** 37% of A level Written paper 2 hours 15 minutes 100 marks

OCR Biology A	OCR Biology B
Section A multiple choice questions, 15 marks. Section B short structured questions and extended response questions, problem solving, calculations, practical and theory 85 marks.	Advance notice article (underpins 20-25 marks). Short structured questions and extended response questions, problem solving, calculations, practical and theory.
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: Practical Skills in Biology Modules 1–5** 22% of A level Written paper 1 hour 30 minutes 60 marks Short structured questions and extended response questions, problem solving, calculations, practical and theory.

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 OCR A Level Biology B 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 – 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.

