Switching to OCR B from Pearson (Edexcel) A

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.

OCR Biology B	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: 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 • Transport systems in plants • Gas exchange in mammals and plants	**1. Lifestyle, Health and Risk:** lipids and saccharides, cardiovascular **2. Genes and Health:** membranes, proteins, nucleic acids, genes, gas exchange **3. Voice of the genome:** cell structure **4. Biodiversity and Natural Resources:** vascular tissue in plants
Module 3: Cell division, development and disease control • The developing cell • The developing individual • The development of species • Pathogenic microorganisms • The immune system • Controlling communicable disease • The cellular basis of cancer and treatment • Respiratory diseases and treatment	**3. Voice of the genome:** mitosis, meiosis,genes **6. Immunity, Infection and Forensics** **4. Biodiversity and Natural Resources**: biodiversity, classification

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Module 4: Energy, reproduction and populations • Cellular respiration • Metabolism and exercise • Fertility and assisted reproduction • Effects of ageing on reproduction • Photosynthesis, food production and management of the environment • The impact of population increase • Plant reproduction	**5. On the Wild Side:** photosynthesis, ecosystems **7. Run for your Life:** respiration, muscles
Module 5: Genetics, control and homeostasis • Patterns of inheritance • Population genetics and epigenetics • Gene technologies • The nervous system • Monitoring visual function • Effects of ageing on nervous system • Homeostasis • Hormonal control of blood glucose • Kidney function and malfunction	**2. Genes and Health:** patterns of inheritance **4. Biodiversity and Natural Resources**: natural selection, Hardy Weinberg **7. Run for your Life:** homeostasis **8. Grey matter**
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: 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 1: Lifestyle, Transport, Genes and Health, Topics 1 and 2** 50% of AS Written paper 1 hour 30 minutes 80 marks Multiple-choice, short open, open-response, calculations and extended writing questions.
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.	**AS Paper 2: Paper 2: Development, Plants and the Environment, Topics 3 and 4** 50% of AS Written paper 1 hour 30 minutes 80 marks Multiple-choice, short open, open-response, calculations and extended writing questions
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 1: The Natural Environment and Species Survival, Topics 1-6** 33% of A level Written paper 2 hours 100 marks Multiple choice, short open, open-response, calculations and extended writing questions.
A Level Paper 2: Scientific Literacy in Biology Modules 1-5 37% of A level Written paper 2 hours 15 minutes 100 marks	**A Level Paper 2: Energy, Exercise and Co-ordination, Topics 1-4, 7 and 8** 33% of A level Written paper 2 hours

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Advance notice article (underpins 20-25 marks). Short structured questions and extended response questions, problem solving, calculations, practical and theory.	100 marks Multiple choice, short open, open-response, calculations and extended writing questions.
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.	**A Level Paper 3: General and Practical Applications in Biology, Topics 1-8** 33% of A level Written paper 2 hours 100 marks Pre-release scientific article. Synoptic questions.