

Biology

Staff List 2026-27

Name	Job Role	Contact Email
Mrs A. Amor	Teacher of Science	aam@northbromsgrove.worcs.sch.uk
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Curriculum Intent

A Level Biology allows students to develop relevant practical skills alongside essential knowledge and understanding of a range of biological concepts and scientific methods. Biological mathematics and problem-solving skills are also fully integrated into teaching and learning.

Exam Board and Link to Specification

Exam Board: We follow the OCR Biology H420 specification.

Here is the link: [AS and A Level - Biology A - H020, H420 - OCR](#)

Curriculum Implementation

	<u>Autumn</u>	<u>Spring</u>	<u>Summer</u>
<u>Year 12</u>	<u>Module 2: Foundations in biology</u> • Cell structure- includes microscopy and how cells work • Biological molecules- bonding in water, Polysaccharides, Proteins • Nucleotides and nucleic acids- structure of DNA and replication. • Enzymes- their role in the cell and lock and key mechanism • Biological membranes – and movement through them by diffusion, osmosis and active transport • Cell division, cell diversity and cellular organisation	<u>Module 3: Exchange and transport</u> • Exchange surfaces – includes gaseous exchange in mammals and other organisms • Transport in animals –the cardiovascular system, heart structure and transport of gases • Transport in plants- The role of Phloem and Xylem Module 4 Part 1: Disease • Communicable diseases- detailed structure of bacteria and viruses • Disease prevention- including antibiotics and antibacterials • The Immune system - consideration of passive and active immunity	<u>Module 4: Biodiversity, evolution and disease</u> • Biodiversity- how to sample environments for plants and animals • Conservation and habitat protection • Classification and evolution- comparing Linnaeus and Woese classification • Darwins ideas for natural selection • Statistical techniques

<u>Year 13</u>	<u>Module 5: Communication, homeostasis and energy</u> • Communication and homeostasis • Excretion as an example of homeostatic control • Neuronal communication • Hormonal communication • Plant and animal responses • Photosynthesis • Respiration	<u>Module 6: Genetics, evolution and ecosystems</u> • Cellular control • Patterns of inheritance • Manipulating genomes • Cloning and biotechnology • Ecosystems • Populations and sustainability	<u>Revision</u> Preparation for terminal exams
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Assessment Overview

A-Level Assessment Details:

Paper 1: Biological processes (2hrs, 15mins 37%)

Paper 2: Biological diversity (2hours 15 mins, 37%)

Paper 3: Unified biology (1hr 15mins 26%).

Throughout the course, students must complete a minimum of 12 Required Practicals (PAGs) which could be included in the written papers.

Practical and mathematical skills are assessed in all the written examinations. 15% of the total A level marks will be for practical knowledge and understanding. Students complete a minimum of 12 practical activities to demonstrate practical competence. A separate endorsement of practical work will be assessed by teachers. This will not be graded. If students pass, it will be reported on their certificate.

How we build on prior learning

Links to retrieval and how the curriculum is sequenced to support prior learning and make learning memorable

- Interleaving assessment activity
- Retrieval practice of content and course material
- Key word vocabulary testing
- Development of exam technique through feedback and reflection strategies

Cross-curricular links with other subjects

- Chemistry
- Maths
- Physics
- Geography
- Citizenship

Enrichment opportunities

- A-level Biology Live! Show at Birmingham Town Hall with lectures delivered by some of the world's leading Biologists such as Prof Robert Winston and Prof Steve Jones.
- Biochemistry workshop at the School of Science and the Environment, University of Worcester.

Useful links and resources to support learning

- OCR A-level Biology Year 1 & 2 Complete revision and practice- CGPBooks
- New A-level Biology OCR Exam practice workbook-CGP books
- Bozeman Science Biology Lectures [Bozeman Science - YouTube](#)
- Snaprevise [Free Downloads | SnapRevise](#)
- [OCR A-level Biology \(A\) Revision - Physics & Maths Tutor](#)
- [A-Level Biology \(OCR\)](#)

How can parents/carers support learning at home?

- Help students keep to a good routine with their work
- Encourage students to read around the current topic to consolidate learning
- Ensure that students stick to deadlines and don't fall behind
- Liaise with teachers over any concerns
- Encourage learning in short bursts followed by a short break before another short burst.

Studying Biology is helpful if you are thinking about careers in:

- Marine Biology
- Microbiology
- Zoology
- Pharmacology
- Physiotherapy
- Medicine
- Veterinary Science
- Dentistry
- Nursing
- Genetic counselling
- Pharmacy
- Pharmacology
- Toxicology
- Biochemistry
- Paramedic
- Biomedical Science