



OCR A level Biology A

Mrs P Bamber (Head of Biology)





The Importance of Biology

AI	Super food	Body building
Climate change	Antibiotics resistance	Honeybees
Brain fog	Creatine	E Coli



To study biology is to study life.

From plants and animals to genes and evolution, this is the study of all living organisms and how they live and die.



Introduction to A level Biology



‘Biology is my favourite subject, not only is it fascinating, but its importance as a subject is unquestionable. The teachers and support you receive is exceptional and there is no other subject I would rather do’ **Year 13 student**





Studying A level Biology at Ecclesbourne

- Popular subject – 2025-2026:
Y13 = 49 students
Y12 = 52 students
- Experienced staff – Mrs Bamber, Mrs Weller, Mrs Turnbull, Mr Dunker Brown, Miss Harcus.
- Great results - In 2025 51% of students attained A*/A, 82% A*- C
- Well-resourced department with excellent support from Lab technicians.



Course Overview Year 1

1. Development of practical skills (Across both years)	2. Foundations in Biology	3. Exchange and Transport	4. Biodiversity, Evolution and Disease
• Planning, implementing, analysis, evaluation and research. • Development of skills in use of specific apparatus and techniques. • These skills are delivered across 12 Practical Activity Groups (PAG)	• Different types of cells (Eukaryotic and Prokaryotic) • Production of new cells through mitosis and meiosis • The internal structure of a cell. • Cell surface membrane • Cell communication • DNA and it's structure • Enzymes and how they work	• Exchange Surfaces • Transport in Animals • Transport in Plants	• Communicable diseases, disease prevention and the immune system • Biodiversity • Classification and Evolution

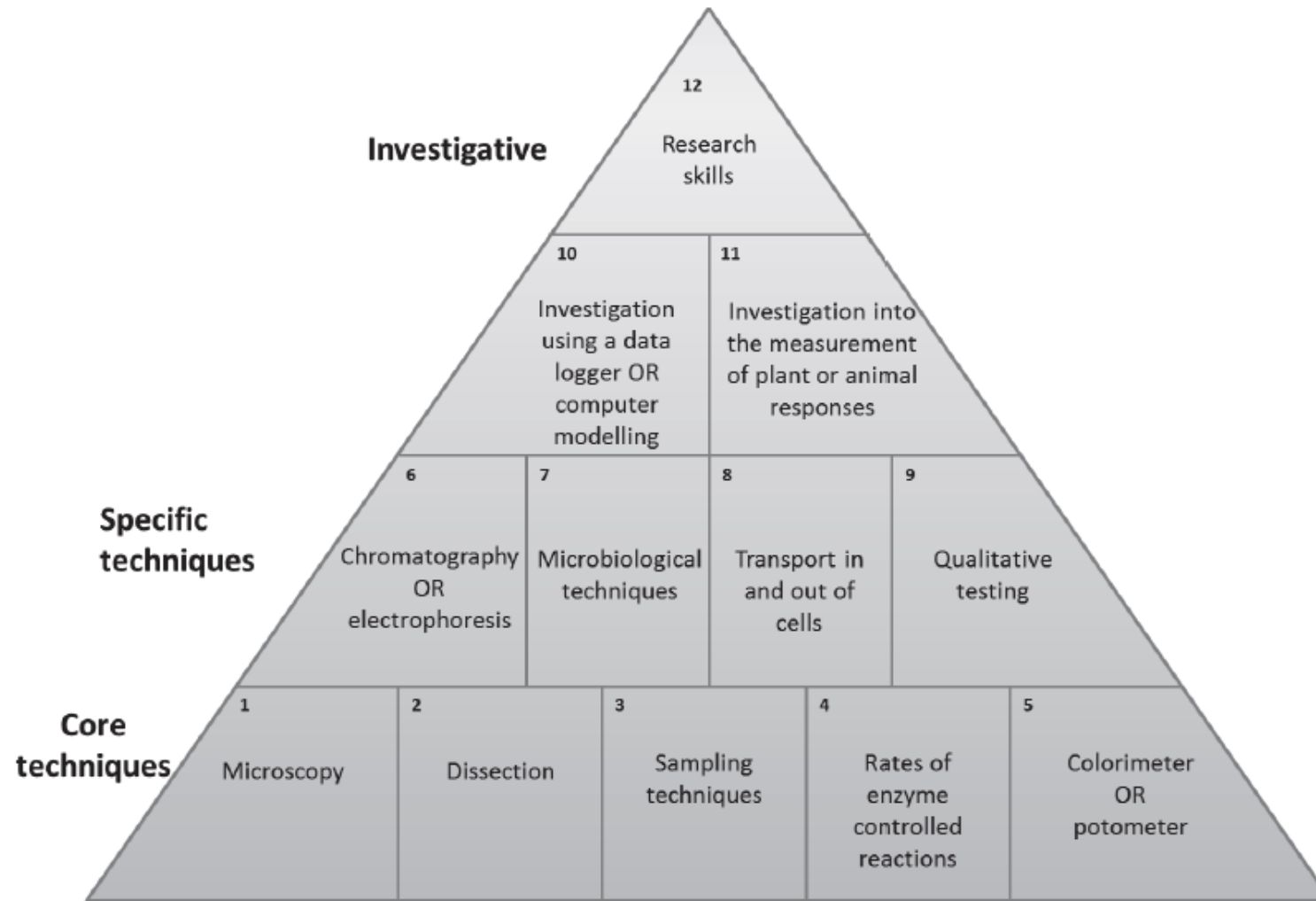


Course Overview Year 2

1. Development of practical skills (Across both years)	5. Communication, homeostasis and energy	6. Genetics, evolution and ecosystems
• Planning, implementing, analysis, evaluation and research. • Development of skills in use of specific apparatus and techniques. • These skills are delivered across 12 Practical Activity Groups (PAG)	• Communication • Homeostasis • Excretion • Neuronal & hormonal communication • Plant and animal responses • Photosynthesis & respiration	• Cellular control • Patterns of inheritance • Manipulating genomes • Cloning and biotechnology • Ecosystems • Populations and sustainability



Practical work

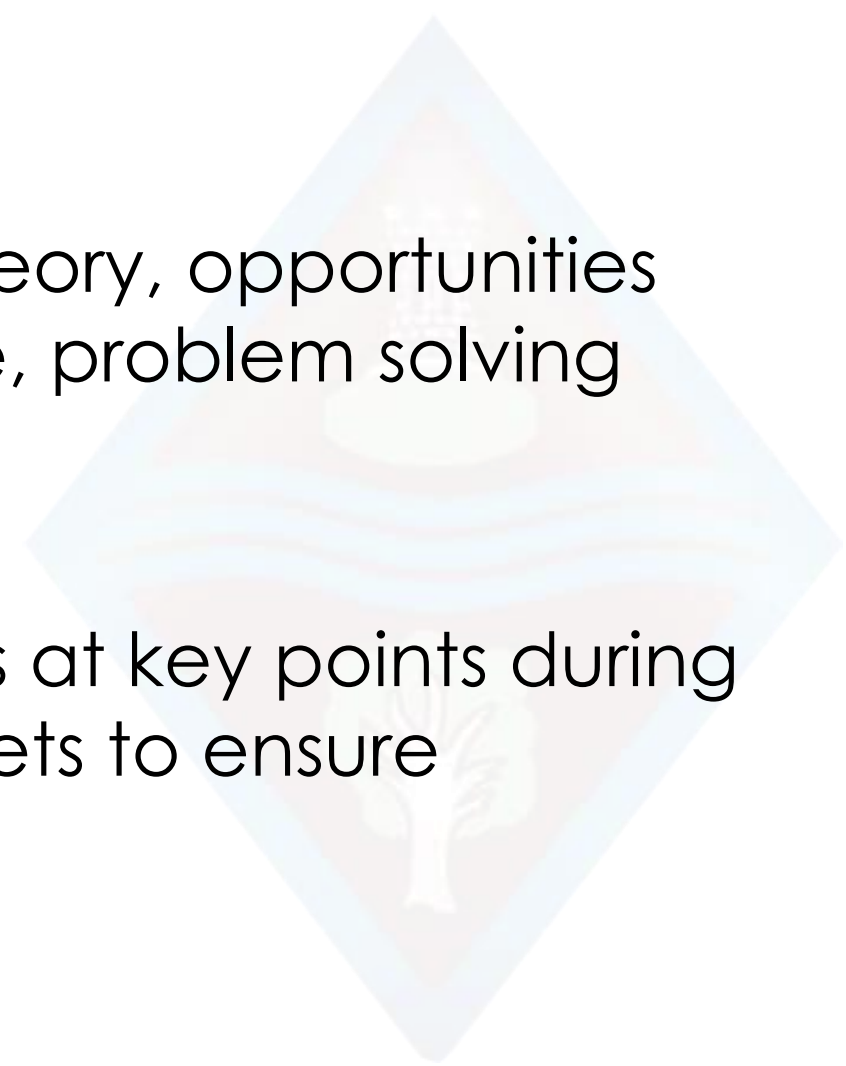


- The practical component is assessed in the final exam.
- Students also receive a practical endorsement if they show competency in the skills required. The practical endorsement may be given as an entry requirement by Universities.



Structure of year 12 teaching

- 2 teachers for 5 hours per week.
- Lessons typically involve coverage of theory, opportunities for discussion, application of knowledge, problem solving and practical activities.
- Independent study is **vital**.
- Regular topic tests and assessment tasks at key points during the modules – related back to ALIS targets to ensure maximum progression.





Resources for the course

- Students receive an online subscription to Kerboodle to access the A Level course textbook and other learning resources
- Textbooks and revision books for this course will be available for purchase
- Opportunity to subscribe to 'Biological Sciences Review'
- Student Handbook containing a full copy of the specification
- Support on the Revision Zone and SMH – lesson resources and additional reading materials

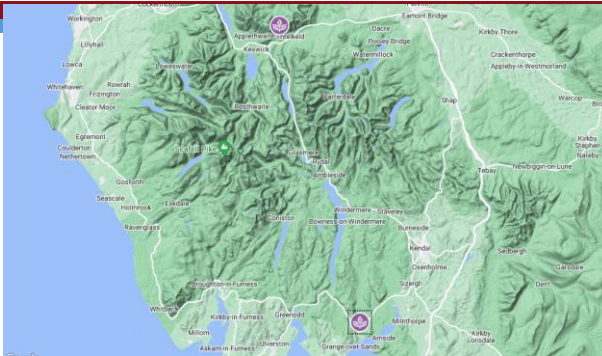


Component	Marks	Duration	Weighting	Content
Biological processes	100	2 hours 15 minutes	37%	Modules 1, 2, 3 and 5
Biological diversity	100	2 hours 15 minutes	37%	Modules 1, 2, 4 and 6
Unified Biology	70	1 hour 30 minutes	26%	Content from all modules
Practical endorsement	-	-	-	-

- 3 Written examination papers
- Practical Skills Endorsement through 12 specific practical activities completed throughout the year - Pass/Fail
- Note that this goes **alongside** the A level Biology grade, it has NO impact on the outcome of the grade, however it could *potentially* be required by Higher Education providers.



Residential Field Trip



Consolidate their understanding of the basic principles of ecology and biodiversity, and develop sampling strategies.

Embark on detailed investigations in two contrasting ecosystems through which they will develop practical scientific competencies and maths skills.







- GCSE Combined Science Trilogy – **2 x Grade 6**
- Separate Science GCSEs – **Grade 6 in Biology** and a grade 6 in either Chemistry **or** Physics
- The increase in the comprehension and the mathematical processing demands of this new specification mean that the entry requirement of grade 5 or higher in English and Maths **must** remain for students to be able to access the course.



Courses at University



Psychology
Medicine
Biosciences
Neuroscience
Biomedical Science
Biochemistry and Molecular
cell biology
Optometry
Physiotherapy
Veterinary Medicine



- Research scientist
- Pharmacologist
- Biologist
- Ecologist
- Nature conservation officer
- Biotechnologist
- Forensic scientist
- Government agency roles
- Science writer
- Teacher



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If you have any further questions do not hesitate to contact –
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