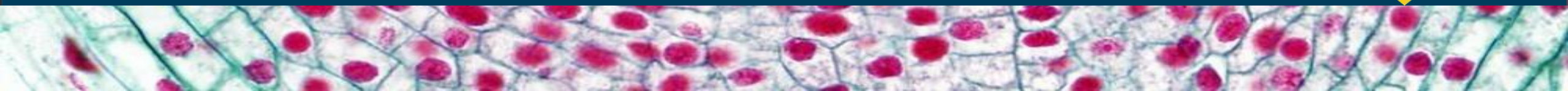


Biology A Level



Biology A Level



Entry requirements:

To study one A Level science course, you will need to achieve a minimum of:

- 6, 6 in Combined Science.
- 6, 6, 6 in Biology, Chemistry and Physics.

To study two A level science courses, you will need to achieve a minimum of:

- 7, 6 in Combined Science.
- 7, 7, 6 in Biology, Chemistry and Physics, with a 7 in one of the subjects you want to study.

To study three A level science courses, you will need to achieve a minimum of:

- 8, 8 in Combined Science.
- 8, 8, 8 in Biology, Chemistry and Physics.

Biology A Level



Mrs Jabbal



Mrs Gosling



Course Details

Course Name:
A Level Biology
Exam Board: OCR



Course Outline

Module 1 - Development of Practical skills

Module 2 - Foundations in Biology

Module 3 - Exchange and Transport

Module 4 - Biodiversity, evolution and disease

Module 5 - Communication, homeostasis & energy

Module 6 - Genetics, evolution and ecosystems



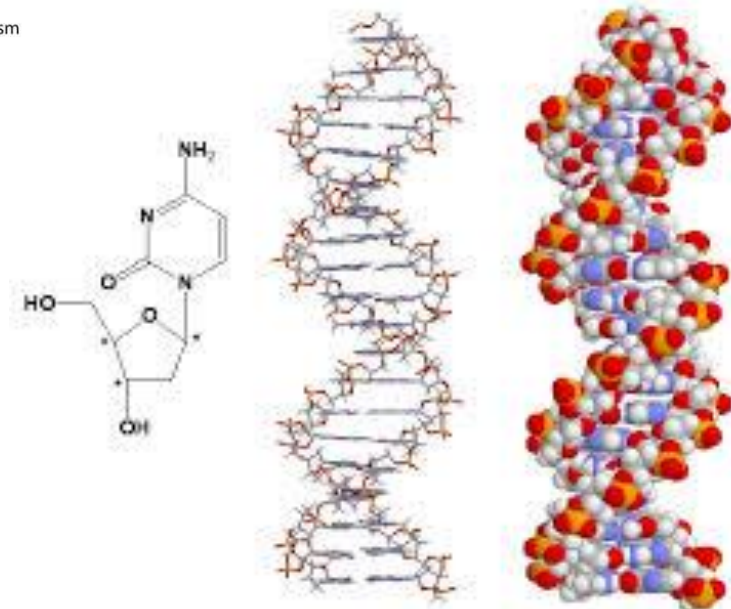
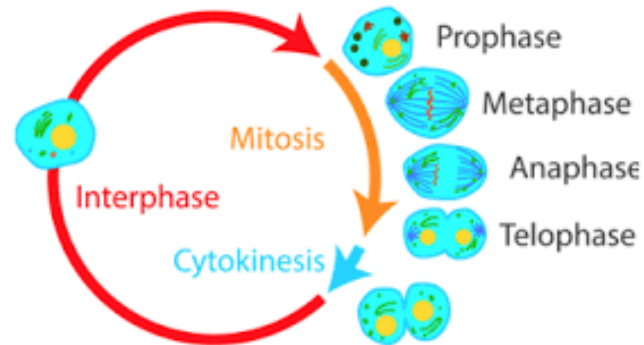
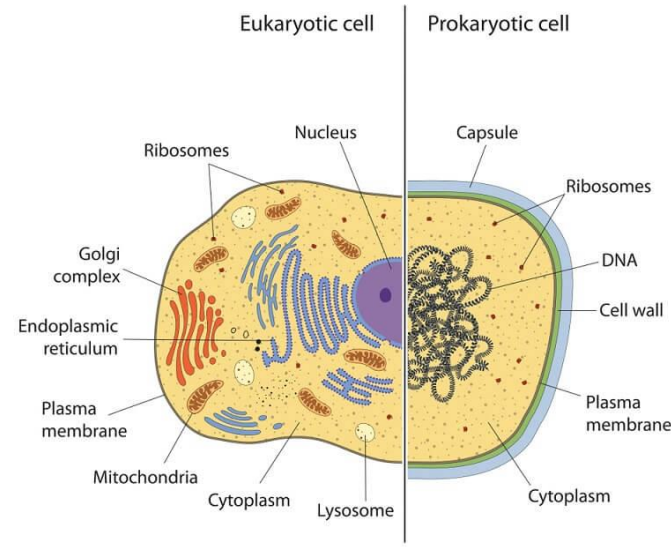
Module 1: Development of practical skills

- ▶ 1.2.1 Practical skills (written paper)
 - ▶ Independent thinking
 - ▶ Use and application of scientific methods and practices
 - ▶ Research and referencing
 - ▶ Instruments and equipment
- ▶ 1.2.2 Use of apparatus and techniques (practical endorsement minimum of 12 practicals)
 - ▶ E.g. microscopes
 - ▶ Safe and ethical use of organisms
 - ▶ Aseptic techniques
 - ▶ Dissections
 - ▶ Sampling in fieldwork
 - ▶ ICT computer modelling/data logging



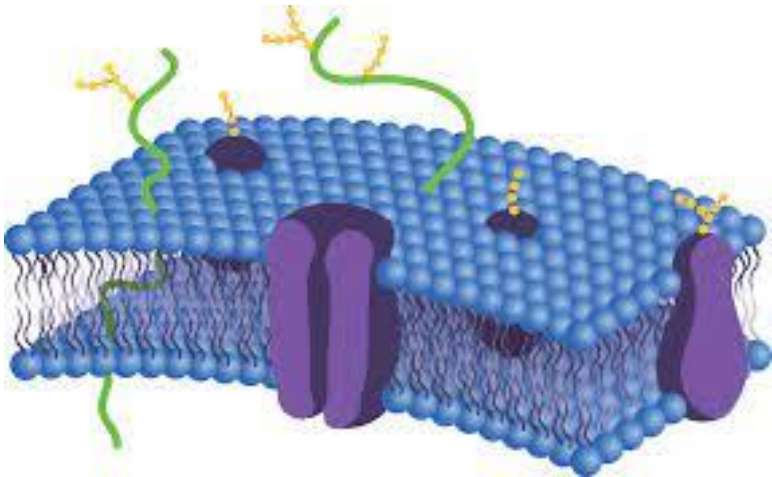
Module 2: Foundations in Biology

- ▶ Cell Structure
- ▶ Biological Molecules
- ▶ Nucleotides and Nucleic Acids
- ▶ Enzymes
- ▶ Biological Membranes
- ▶ Cell Division, Cell Diversity and Cellular Organisation



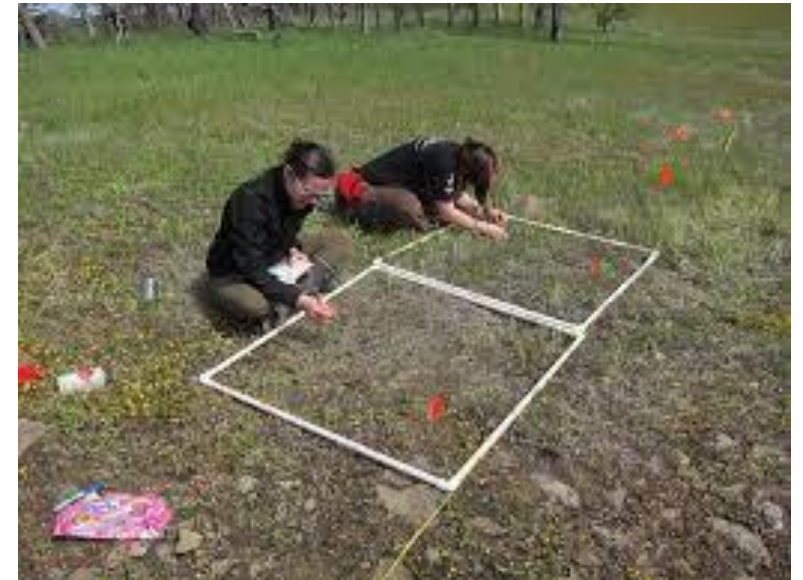
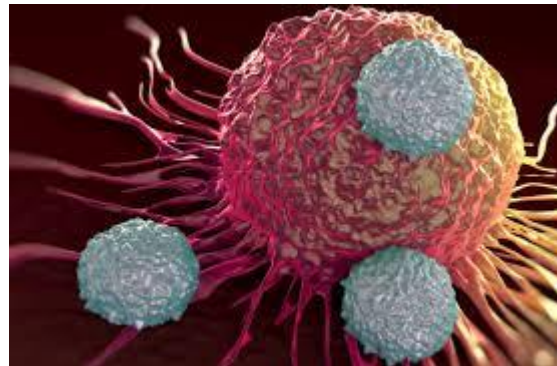
Module 3: Exchange and Transport

- ▶ Exchange Surfaces
- ▶ Transport in animals
- ▶ Transport in plants



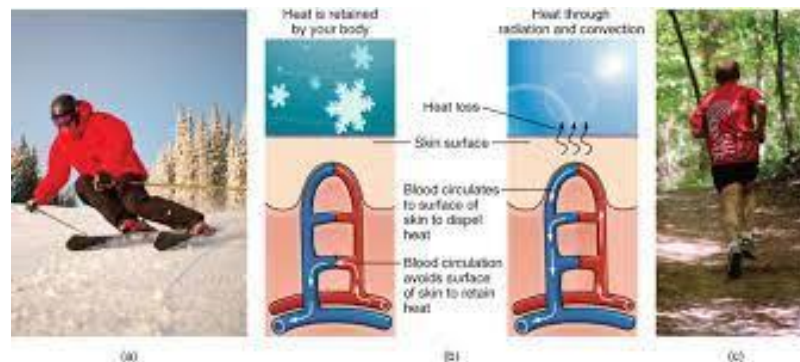
Module 4 Biodiversity, Evolution and disease

- Communicable diseases disease prevention and the immune system
- Biodiversity
- Classification and evolution



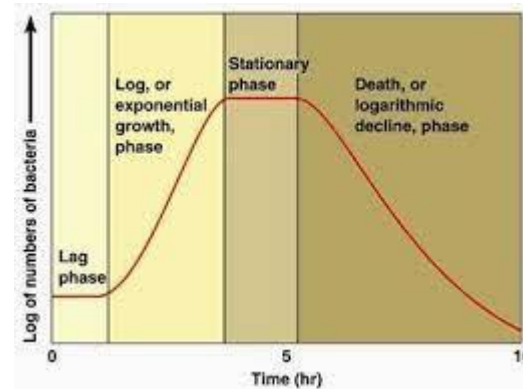
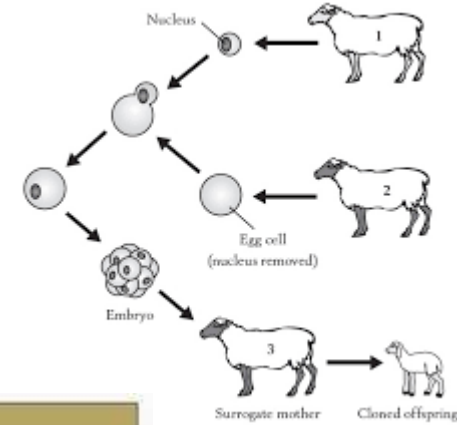
Module 5: Communication, Homeostasis ~ and Energy

- ▶ Communication and Homeostasis
- ▶ Excretion as an example of homeostatic control
- ▶ Neuronal communication
- ▶ Hormonal communication
- ▶ Plant and animal responses
- ▶ Photosynthesis
- ▶ Respiration



Module 6: Genetics, Evolution and Ecosystems

- Cellular Control
- Patterns of Inheritance
- Manipulating Genomes
- Cloning and Biotechnology
- Ecosystems
- Populations and Sustainability



Essential Course Details

Paper	Component	Marks	Assesses content from modules	Duration	Weighting
1	Biological processes	100	1 2 3 5	2hr 15min	37%
2	Biological diversity	100	1 2 4 6	2hr 15min	37%
3	Unified Biology	70	1 2 3 4 5 6	1hr 30min	26%
4	Practical endorsement	Non exam assessment		-	Pass/Fail

Practical Skills- What is assessed?

Common Practical Assessment Criteria	(1) Follows written procedures
	(2) Applies investigative approaches and methods when using instruments and equipment
	(3) Safely uses a range of practical equipment and materials
	(4) Makes and records observations
	(5) Researches, references and reports

Practical Skills- What is assessed?

- 1.2.1(b) Safely and correctly use a range of practical equipment and materials
- 1.2.1(c) Follow written instructions
- 1.2.1(d) Make and record observations / measurements
- 1.2.1(e) Keep appropriate records of experimental activities
- 1.2.1(f) Present information and data in a scientific way
- 1.2.1(j) Use a wide range of experimental and practical instruments, equipment and techniques
- appropriate to the knowledge and understanding included in the specification
- 1.2.2(a) Use of appropriate apparatus to record a range of quantitative measurements (to include volume, time)
- 1.2.2(c) Use of laboratory glassware apparatus for a variety of experimental techniques

Range of activities

- Practical Biology
- Supporting theory, practising skills
- Research skills
- Independent work, collaborative work
- Presentation skills
- Work as a team or individual, present research project.
- Modelling
- Application of principles
- Ecological investigations



Why choose Biology?

Biology is useful entry into:

- ▶ Any biological sciences e.g. biochemistry, physiology, zoology, marine biology, botany anatomy, genetics, biotechnology, pharmacology
- ▶ Medical sciences e.g. Pharmacy, medicine, dentistry, pathology
- ▶ Sport sciences
- ▶ Psychology or Sociology
- ▶ Other pure science e.g. Physics, Chemistry
- ▶ Applied sciences e.g. Forensics, Archaeology
- ▶ Environmental Sciences.

and much more!

Results

2022	92% A*-E	48% A*-C
2021	100% A*-E	65% A*-C
2020	100% A*-E	91% A*-C
2019	93% A*-E	65% A*-C