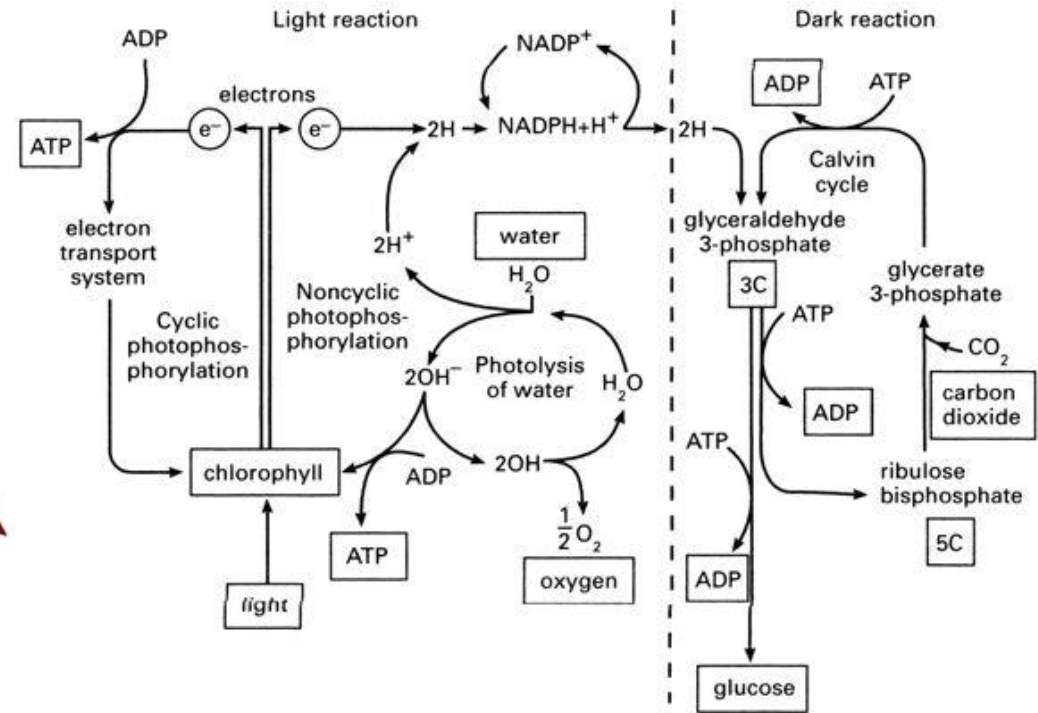


Biology



Welcome to A level Biology
Tough, but worth it 😊



Benefits of A level Biology

- Your knowledge of biology may be used in the future to understand and perhaps solve problems with important worldwide implications such as disease control, food production, conservation of endangered species, controlling world population and dealing with the pollution caused by humans.



A level Biology can open up a range of career opportunities and university degrees including.....

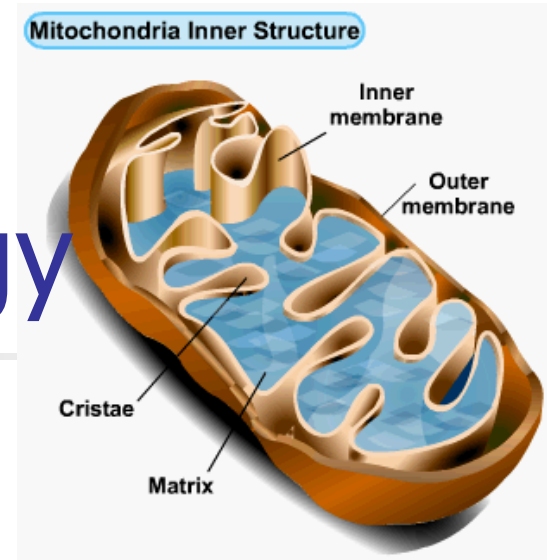
- pure biology, biochemistry, molecular biology
- genetics, zoology, botany
- veterinary sciences, pharmacology
- medicine, nursing, radiotherapy, dentistry
- psychology, forensics
- environmental sciences, marine biology.



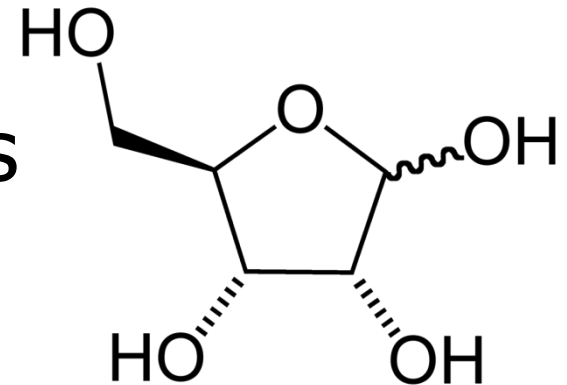
Module 1: Development of Practical Skills

- Skills of planning, implementing, analysis and evaluation are learnt through between 12 to 36 key practicals.
- These skills are assessed in all of the final written examinations
- In addition, if you complete all skills successfully you will be awarded the 'practical endorsement'

Yr 12 Module 2: Foundations in Biology



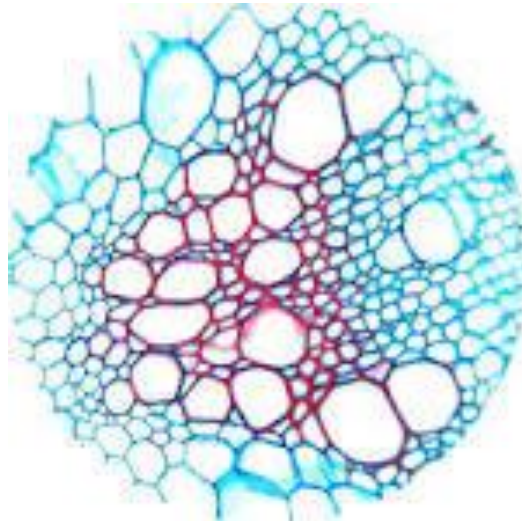
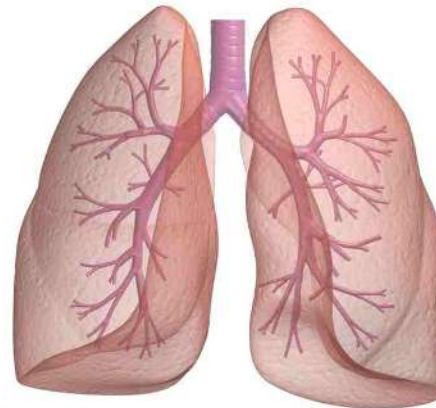
- Cell structure
- Biological membranes
- Cell diversity and cellular organisation
- Cell division
- Biological molecules
- Nucleotides and nucleic acids
- Enzymes



Yr 12 Module 3:

Exchange and Transport

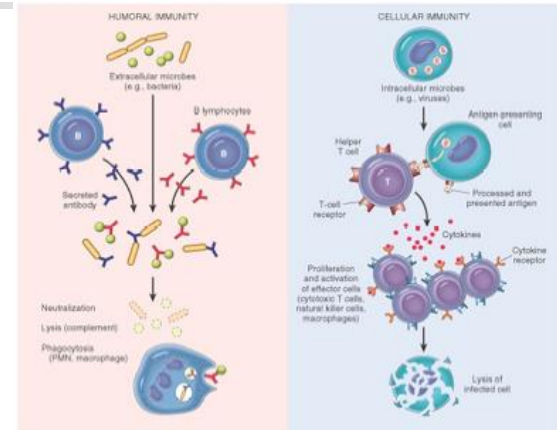
- Exchange surfaces
- Transport in animals
- Transport in plants



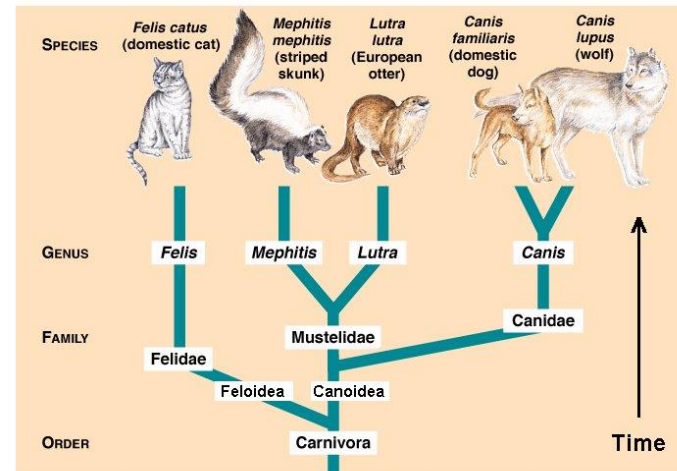
Yr 12 Module 4: Biodiversity, Evolution and Disease

- Communicable diseases
- Disease prevention
- The immune system

- Biodiversity
- Classification
- Evolution



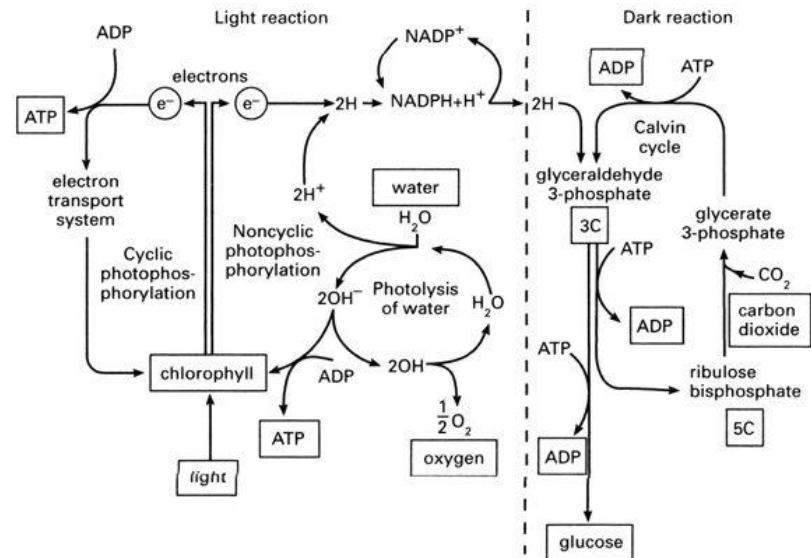
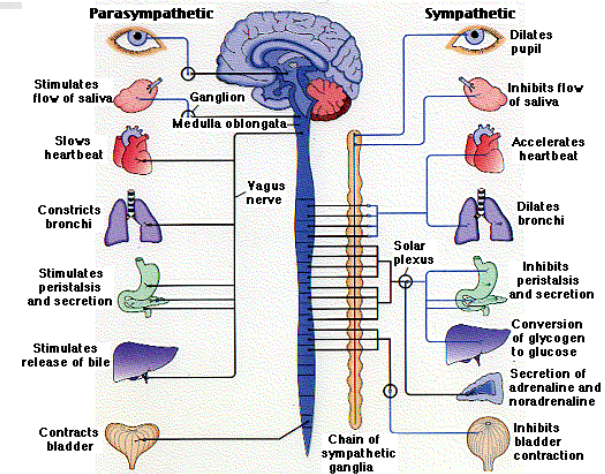
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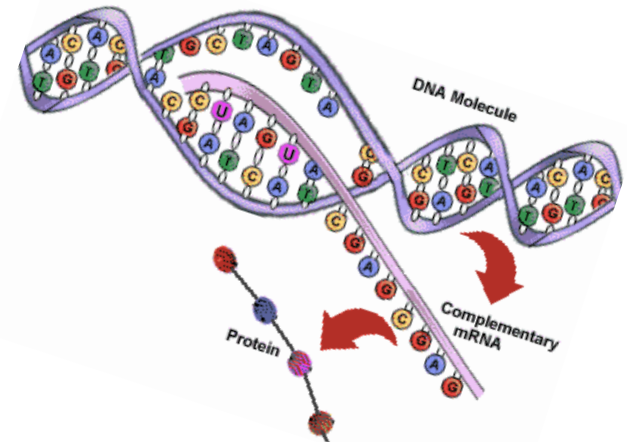
Yr 13 Module 5: Communications, homeostasis and energy

- Plant responses
- Animal responses
- Animal behaviour
- Communication and homeostasis
- Neuronal communication
- Hormonal communication
- Photosynthesis
- Respiration



Yr 13 Module 6: Genetics, Evolution and Ecosystems

- Cellular control
- Patterns of inheritance
- Manipulating genomes
- Cloning and Biotechnology
- Ecosystems
- Populations and sustainability



A2 Examinations

– end of year 13



- Paper 1 = 2¼ hours counts for 37 % of the A level
- Covers modules 1, 2, 3, 5 in 15% multiple choice and 85% structured questions and extended writing covering both theory and practical skills
- Paper 2 = 2¼ hours counts for 37% of the A level
- Covers modules 1, 2, 4, 6 in 15% multiple choice and 85% structured questions and extended writing covering both theory and practical skills
- Paper 3 = 1 ½ hours counts for 26% of the A level
- Covers modules 1 – 6 in 100% structured questions and extended writing covering both theory and practical skills



Staff

- The course is taught by very experienced teachers – *about 60 combined years of experience teaching A level Biology!*
- Ms Birchnall – Head of Biology
- Miss Evans – SLT
- Mrs Lockett – Head of Science



Requirements are non-negotiable

- You need a **minimum** of grade 66 at GCSE Science including grade 6 in both the Biology and Chemistry components
OR a 6 in GCSE Biology and a 6 in GCSE Chemistry
- You need a **minimum** of grade 6 at GCSE Maths and English
- Students who do not gain a 6 in Maths and English will struggle with the style of questions, the complexity of language and the level of maths in A level Biology and may fail to gain a grade
- You must have a strong work ethic and **lots of time** available to study



Expectations

- Compulsory after school sessions occur from Christmas of year 12 until end of year 13
- These are mainly to teach you to access the higher order of questioning that is specific to A level Biology

Homework



- You will be expected to do **at least 5 hours** of homework for Biology each week – a lot of this is preparation work. You are expected to come to each lesson having read the section of the text book that we will be covering next, answered the questions and with written questions or sticky notes with ? you want answering by the end of the lesson.
- Please be aware that deadlines are important and letters will go home and time will be spent with Ms Birchnall after school if you don't hit them!

