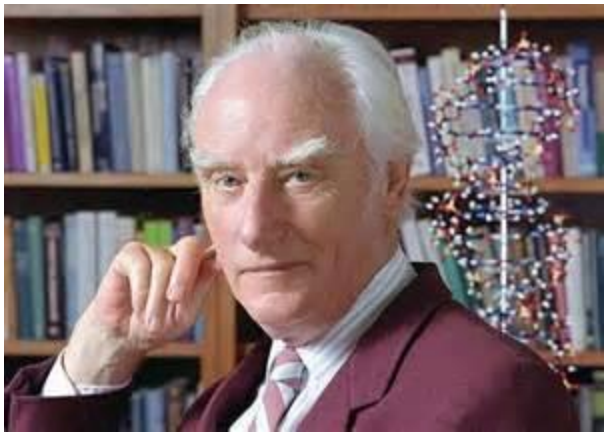
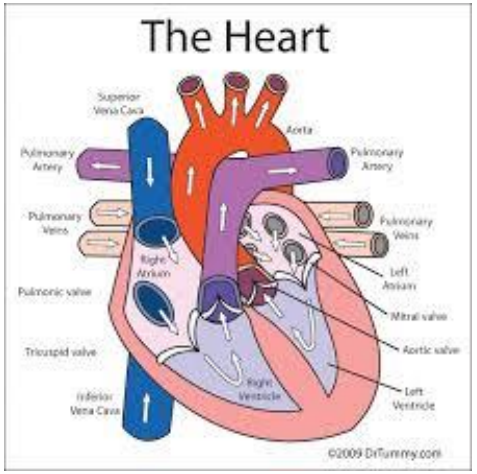
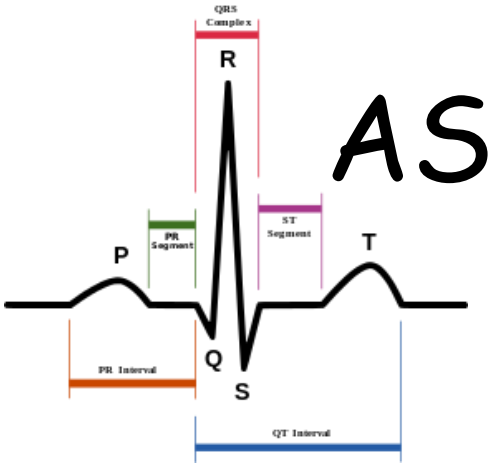
'The development of biology is going to destroy to some extent our traditional grounds for ethical belief and it is not easy to see what to put in their place.'

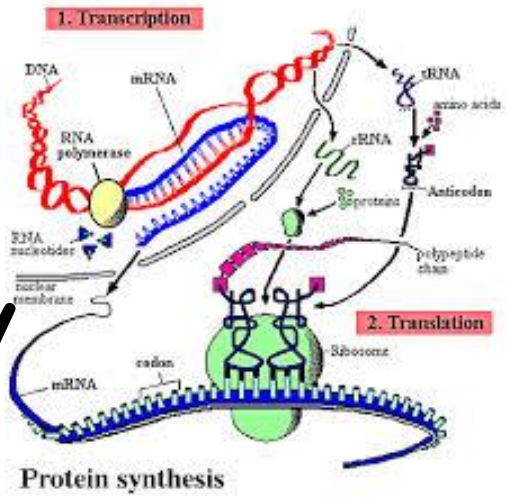
Francis Crick, 1916 – 2004
Molecular Biologist (discovered DNA)



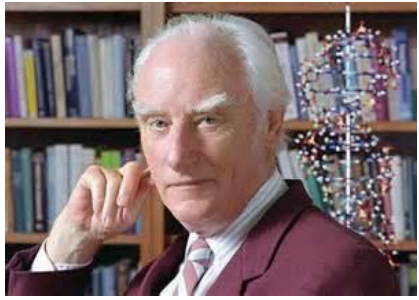


Welcome to AS/A Level Biology

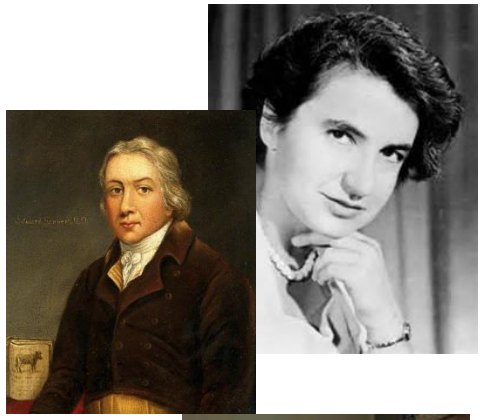


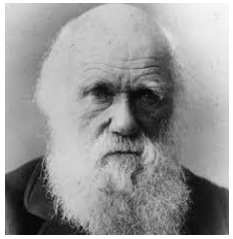


Why study Biology?



- Great examination results
- Experienced and supportive teachers
- Lots of discussion and development of analytical skills with Biological articles to extend learning and prepare students for further study
- Practical skills embedded into the curriculum
- Trips to embed Biological concepts to Robin Hoods Bay to study distribution of organisms





The study of Biology is a gateway to many university courses and careers.

You will develop:

Excellent biological understanding,

Analytical skills,

Good work ethic,

Ability to unpick ethical problems,

Problem solving skills,

team working and independent study skills.

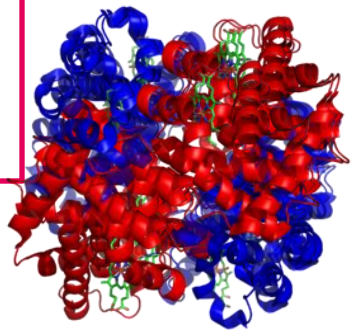
The ability to apply theory to practical situations and investigate problems, scientific writing and the ability to apply knowledge to new information.

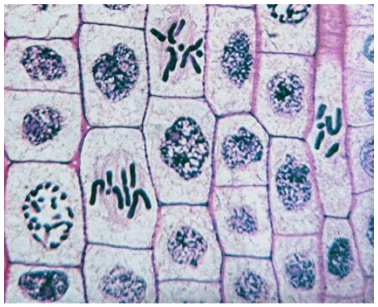
All of these skills are all transferable and will be highly desirable in the world of work or further education.

Most importantly do you enjoy unpicking what life is?

Understanding how you and everything around you functions to exist?

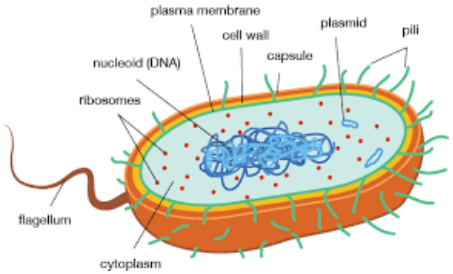
Year 12 Biology

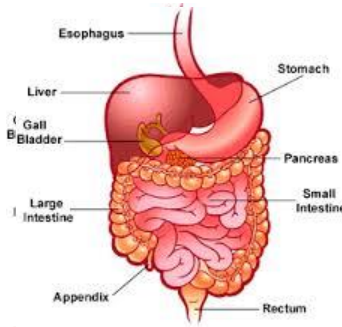


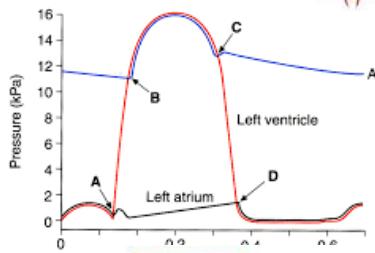


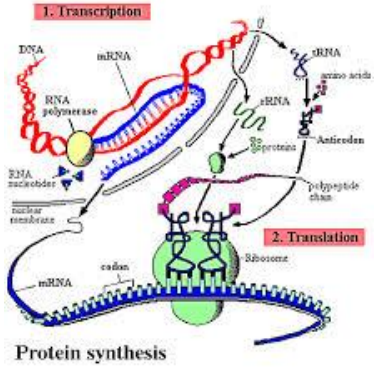
4 units – 100% internal examination
2 x 90 minute exams in the summer:

- **Unit 1 – Biological Molecules**
- **Unit 2 – Cells**
- **Unit 3 – Organisms exchange substances with their environment**
- **Unit 4 – Genetic information, variation and relationships between organisms**







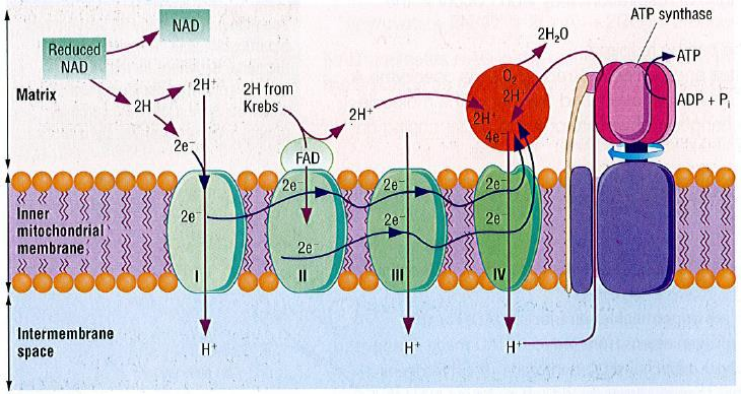


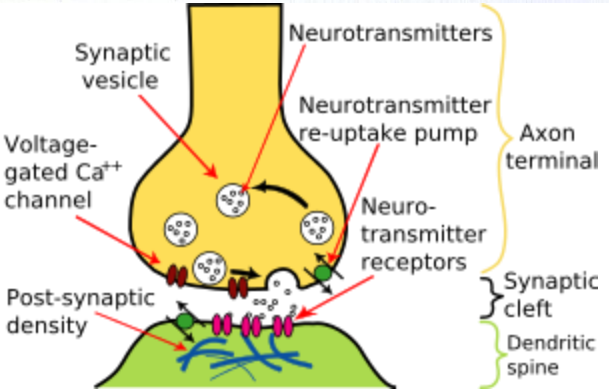
Protein synthesis

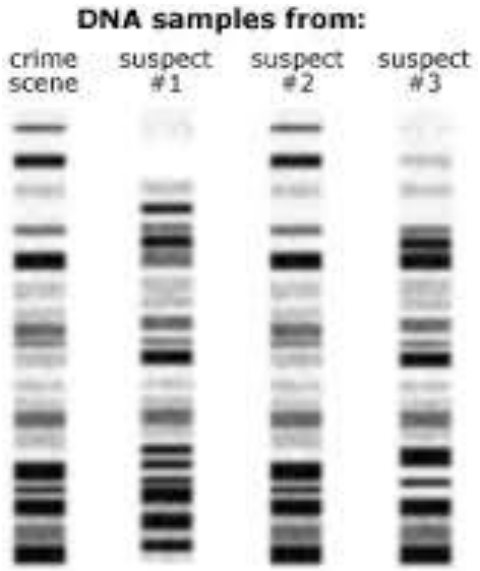
A Level Biology

8 Units split into 3 x 2 hour exams
4 Units from AS Level

- Unit 5 - Energy transfer in and between organisms
- Unit 6 - Organisms respond to change in their environment
- Unit 7 - Genetics, populations, evolution, and ecosystems
- Unit 8 - The control of gene expression



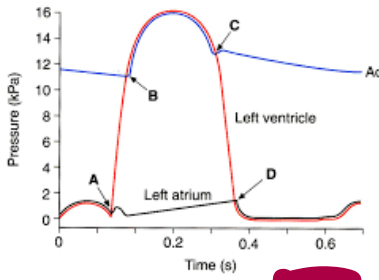


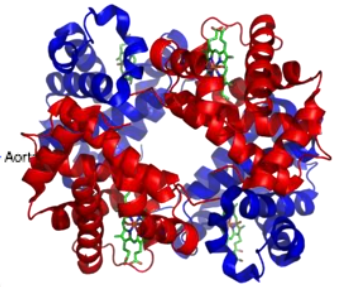


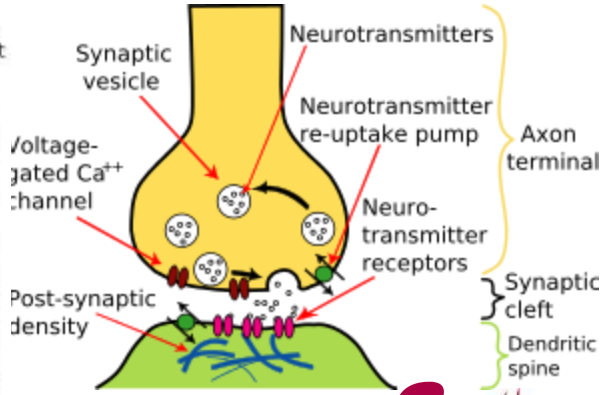
The practical endorsement

- 12 Common practicals
- Students will gain a pass or fail for the practical endorsement and over the course of the practicals must demonstrate common skills
- Theses practical experiments will be examined in the exams at AS and A Level

1. Investigation into effect of named variable on rate of enzyme-controlled reaction
2. Preparation of stained root tip squash; set-up and use of optical microscope and calculation of mitotic index
3. Production of dilution series to produce calibration curve and identification of water potential of plant tissue
4. Investigation into effect of named variable on permeability of cell-surface membrane.
5. Dissection of animal or plant gas exchange system or mass transport system or of organ within system
6. Use of aseptic technique to investigate effect of antimicrobial substances on microbial growth
7. Use of chromatography to investigate pigments isolated from leaves of different plants
8. Investigation into effect of named factor on rate of dehydrogenase activity in extracts of chloroplasts.
9. Investigation into effect of named variable on rate of respiration of cultures of single-celled organisms
10. Investigation into effect of environmental variable on movement of an animal using choice chamber or maze
11. Production of dilution series; colorimetry to produce calibration curve; identification of glucose concentration
12. Investigation into effect of named environmental factor on distribution of given species







Enjoy the rest of your evening!