

Biology Curriculum Map

Revision

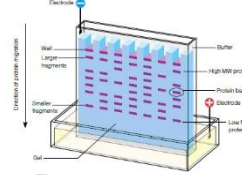
Exams
2 x 2hr
15min
1 x 1hr30
min

★ The biochemistry of respiration and photosynthesis

★ The role of nerves, hormones and the kidney in the organisation of a multicellular organism

★ A genetic and mathematical investigation into inheritance

★ Tools and techniques in contemporary gene technology



★ ★ The understanding of how organisms interact and the sampling of ecosystems

★ The mechanisms by which animals and plants combat infectious disease

Unit 2b Energetics

Unit 2a Communication And homeostasis

Unit 1b Genetics and control of gene expression

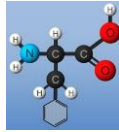
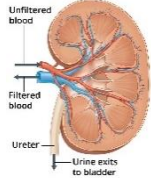
Unit 1a Manipulating genomes

13

Unit 3 Biodiversity, populations And ecosystems

Unit 1 Disease

How activities of man over the last century have impacted on air, sea and land and how they could impact on the future



★ ★ ★ The basis of organic molecules in C,H,O,N. The importance of water and the role of enzymes

★ ★ How advances in microscopy have contributed to our understanding of the ultrastructure of the cell

Unit 3 Human impact on the environment

Exams
2 x 1hr 45 min

12

Unit 1a Biological molecules

Unit 1b Microscopy and the cell

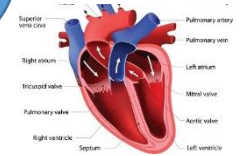
Unit 2 Transport

★ How the elements C and N and the compound water are cycled through biological systems

★ How to investigate distribution of organisms in the environment and to identify how they are adapted to their habitat

An introduction to Mendelian inheritance and gene technology and a consideration of evolution and the possible causes of extinction

The function of the kidney and the treatment of kidney failure



★ Circulation in animals and plants

Unit 2 Organising and ecosystem

Unit 1 Adaptations and ecosystems

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Unit 3 Reproduction and variation

Unit 3 Homeostasis

★ The structure of the neurone and the nervous system
★ and the role hormones in diabetes

★ Enzymes and the biochemistry of the digestive system

Unit 3 Circulation in animals and plants

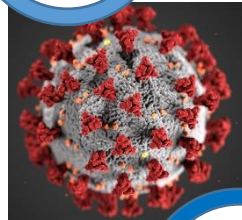
Unit 4 Disease

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Unit 1 Energetics

The structure and function of blood vessels, the heart, phloem and xylem and the lungs

★ Non communicable disease, the transmission of communicable disease, and how this may be reduced



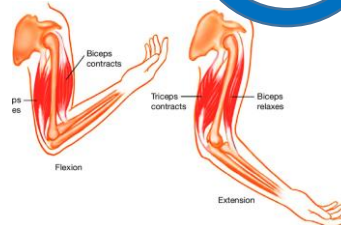
★ The conditions for aerobic and anaerobic respiration; the limiting factors of photosynthesis

Unit 2 Coordination and control

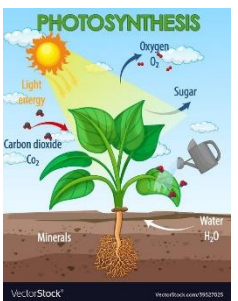
Unit 2 Organisation and digestion

★ How the cell membrane allows particles to cross it and the event of cell division during mitosis

The way that muscles and bones work together



How energy is harvested from the sun by plants and their role in food chains



Unit 1 Cell structure, transport and division

9

Unit 4 Muscles and movement

Unit 3 Photosynthesis

The organs, and sequence of events, in the passage of food through the alimentary canal



The importance of energy release in the survival of all organisms

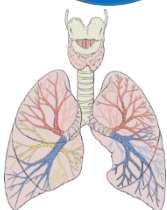
The importance of variation in the survival of organisms

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Unit 1 Digestion

Unit 2 Respiration

Unit 4 Adaptations and inheritance



An introduction into the principal organ systems of the body



Reproduction in animals and plants

An introduction to the building blocks of life and how they may be studied



Unit 3 Structure and function of body systems

Unit 2 Reproduction

Unit 1 Cells

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