NEXT

Haberdashers' Abraham Darby
Year 11 TRIPLE Biology Learning Journey

This way to Further Education, Training or Employment

Exam Preparation
Build a portfolio of revision material, to help remember Powerful Knowledge and commit key information to long term memory.
You will be tested on all the content learned over the course of Y10 & Y11.

Exam Preparation

GCSE Exams

Summer Term 2

Revision
In addition to your Biology classes, there are lots of resources to support you. Websites include: BBC Bitesize, Physics and maths tutor, S-Cool, Gojimo. Don't forget there are Revision Guides and Flashcards too available from the LSB.

Summer Term 1

Ecological Relationships
Describe the levels of organisation in ecosystems and its importance. Describe interdependence of organisms including parasitism and mutualism. Explain affects of abiotic and biotic factors. Investigate the relationships between organisms and their environment through various field-work techniques. **Explain energy transfer in food chains and calculate efficiency.** Explain positive and negative impacts of human interactions on biodiversity and benefits of conservation. Describe the biological factors affecting levels of food security. Explain the carbon, water and nitrogen cycles. Evaluate use of indicator species for pollution levels assessment. **Explain the effects of factors on decomposition and calculate rate changes.**

Spring Term 2

Exchange and Transport in Animals
Describe the transport of named substances into and out of organisms and explain the need for exchange surfaces and transport systems. **Describe factors affecting the rate of diffusion and calculate Fick's Law.** Explain how the alveoli are adapted for gas exchange. Explain how the structure of blood and blood vessels are related to their function. Explain the structure of the heart and circulatory system and calculate heart rate, stroke volume and cardiac output. Compare the process of aerobic and anaerobic respiration. Investigate the rate of respiration.

Spring Term 1

Animal Coordination and Control
Describe where hormones are produced and how they are transported. **Explain the function of adrenaline and thyroxine**. Describe the stages of the menstrual cycle and explain the interactions of the hormones involved. Explain the use of hormones in treating infertility. Evaluate hormonal and barrier methods of contraception. Explain the importance of homeostasis, thermoregulation and how blood glucose is controlled, including cause and treatment of diabetes. **Describe the structure of the urinary system and the importance of osmoregulation and the kidneys. Describe the treatments for kidney failure.**

Autumn Term 2

Plant Structure
Describe photosynthesis and explain the limiting factors. Investigate the rate of photosynthesis and calculate the rate of reaction. Explain the inverse square law. Explain the function and structure of xylem and phloem. Describe the structure and function of the leaf including the stomata and investigate the process of transpiration. Explain how plants are adapted for extreme environments. **Explain how plant hormones control and coordinate plant growth and development and their commercial uses.**

Autumn Term 1

NOW

Y11
Students will enter Y11 having worked through a comprehensive KS3 &Y10 Science curriculum comprising elements of: Key Concepts in Biology, Reproduction, Ecology, Food and Digestion, Microorganisms, Cells and Control, Genetics, Plant Structure, Natural Selection, Animal Coordination and Control. Working and thinking scientifically underpins everything that we do. *(Separate Science Biology in italics)*

THEN

Start here