## **Science - Biology**

## **LEARNING JOURNEY**



Food security, Peat bogs

**Combined** Science

**Richard Dawkins** 

AQA GCSE Combined/Separate science biology paper 1 and paper 2 revision and mastery

Revision & mastery: Biology exam technique practice and PPE

question breakdown



sustainable fishing and farming techniques

deforestation and global warming

> Biodiversity and maintaining it

**Exams GCSE** Separate **Science** exams

Biology paper 2 Targeted feedback and revision guidance

Biology paper 2

Biology Biology paper 1 Targeted paper 1 feedback and revision guidance

Measuring population distributions

**YEAR** 

Water, carbon and decomp

hormones

(triple)

Asexual and sexual reproduction

Explaining genetic inheritance and how proteins are synthesised in cells

Genetic engineering, cloning and selective breeding

Speciation

What causes extinctions?

Ecology osition cycles

HOMEOSTASIS

Contraceptives

**Fertility** treatments contraceptives

> Treatment of diabetes

Hormonal coordination with a focus on the and the roles of reproductive hormones

control of blood glucose

Describing the structure of plant and animal cells and the functions of organelles

Kidneys and dialysis (triple)

The structure of the nervous system and the use of reflex actions

meiosis

Describe how

cells divide by

mitosis and

Inherited genetic disorders and research advances in treatments

B6 Inheritance, Variation & Evolution

The body's response to exercise

Describing evolution and the theory of natural selection and other theories. Explaining the evidence for.

Explaining what photosynthesis is and how we can measure its rate and prove it is occurring

**YEAR** 

Defence mechanisms, antibiotics and vaccines

Classification of species and

structures of

ecosystems

& response

The brain, the eye and control of body temperature (triple)

> Stem cells and their use in organisms and for research

homeostasis is

Diffusion, osmosis and active transport

Explaining what Metabolism Aerobic and

How enzymes work

Limiting factors

**B4** Bioenergetics

anaerobic photosynthesis respiration

diseases

Non-**Plant** communicable

organisation

By Merican & Response **Diseases** caused by pathogens

Drug development and

monoclonal antibodies

pathogens:

viruses, bacteria,

protists and fungi

Aerobic respiration

ENERGY

Using microscopes to. study cells

**B1** Cells

Explaining the differences between eukaryotic and prokaryotic cells

> What are mutations and their effects?

Chromosomes and how cells divide by mitosis

biodiversity is

**Explaining what** 

What affects the rate of photosynthesis?

**YEAR** 

**B2** Organisation

Explaining how animals are organised with a focus on

the digestive system, breathing system, the heart and



Adaptations for

photosynthesis

Labelling a

diagram of the

breathing system

Photosynthesis &

Explaining the difference between

respiration and breathing

Label a diagram

of the digestive

system

Breathing and digestion

Anaerobic

respiration

Describe how green plants make glucose through photosynthesis

Paper 1

content

**Explaining genetic** inheritance via genes on chromosomes



Studying variation and why it is important to the

survival of a species

Variation & Human Reproduction

**Evolution and Inheritance** 

**Explaining why** 

species may

become extinct

Describe what the menstrual

female for pregnancy

cycle is and how it prepares the

Explain the differences between inherited and environmental variation

Adaptations for seed dispersal

Describe how the organisms in a food web depend on each other.

Describing the main stages of the development of a foetus

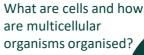
Describing natural selection

and how it explains how

species evolve

Explaining how the skeletal system and muscular system work together to cause movement

Describing how gases move in and out of the lungs and what gas exchange is



**YEAR** 

and how food is digested

What is

respiration?

Describing the main steps in sexual

reproduction in

plants

& Plant Reproduction

Explain the effects of environmental changes on a species' population





Describing the functions of the human skeleton Describing and giving examples of specialised cells





Describe why

Cells and Movement