

## BIOLOGY AT PLECKGATE YEAR 10 LEARNING JOURNEY



pathogens getting into the body.

Describe the main Describe what a **B13:** Reproduction differences between Describe the process of a genome is and the will be reviewed and asexual and sexual Review kidney transplant and the completed in year benefits of studying Task: B12 reproduction. 11 problems associated with the human genome. transplants. YEAR **B13** Reproduction Describe how dialysis can be used to carry out the function of Describe how your body removes waste Describe the effect meiosis Describe the advantages and damaged products.describes why your kidneys are and fertilisation have on disadvantages of asexual and kidneys. chromosome number. important and how they work. sexual reproduction. Describe how your body monitors temperature and maintans a Describes what a hormone is and the constant internal temperature. main organs of the endocrine system. **B12 End of Year 10** Describe the how plant Homeostasis exam: Describe the role of Describe how the Describe the role of hormones are used in in action 1st week of summer level of glucose in hormones in human hormones in the agriculture and **Review** the blood is reproduction. term menstrual cycle. horticulture. Task: B11 controlled Review Task: B10 **B11** hormonal coordination Required practical: Investigation into the Describe the effect of light or gravity Describe the Describes Describe the role of Describe different Describe common differences in the structure and the role of on the growth of newly negative feedback in methods of hormonal problems that way type 1 and germinated seeds function of the hormones in the control of and non-hormonal affect the type 2 diabetes plants. eye. hormones in the body. contraception. functioning of the are treated. eye. Describe how hormones can be used to treat Describe the infertility. importance of being able to control the Describe how the body responds Required practical: internal environment of to the increased demands of the Describe aerobic Investigation into the effect of a your body. factor on human reaction time. body during exercise. respiration in animals and plants. **B9** respiration B10 the human nervous system Review Task: B8 Describe the main areas of the brain and their Describe the structure Review Describe functions. **Required Practical:** Describe what reflex Task: B9 and function of the anaerobic reactions are and why they Investigating the effect of **B8** human nervous system. respiration. light intensity on the rate are important. photosynthesis of photosynthesis Describe the factors that affect Describe the effect of diet & the rate of Describe the effect of smoking on the exercise on the development of Describe how photosynthesis. various non-communicable risk of developing lung disease and plants produce **Review** cardiovascular disease. diseases. Review energy through Task: B7 Task: B6 photosynthesis. **B7** non-communicable disease Describe how Describe how some drugs have been plants use the Describe what a non-communicable Describe how glucose made discovered and Describe what disease is and factors that affect the alcohol can cancer is and during developed. incidence of non-communicable affect the body. how it spreads. photosynthesis. disease. Describe the advantages and disadvantages of using monoclonal antibodies. **B6** Describe the Describe some examples of prevention of Describe how some medicines work preventing diseases affecting plants and infections. and treating and the difference between treating the Review animals that are caused by viruses, cause and symptoms of a disease. Task: B5 bacteria fungi & protists disease **B5** Describe Communicable what health diseases is. Describe how pathogens can Describe how cause disease. monoclonal antibodies are Describe the stages of developing, produced and used. Describe how your immune testing, and trialling new drugs. system works and how Describe how your body stops vaccinations protect you

against disease.



## **BIOLOGY AT PLECKGATE YEAR 11 LEARNING JOURNEY**



Describe some factors that affect global food security.

Describe how food production is made more efficient.

Describe trophic levels and how to construct accurate pyramid

FINAL **GCSE EXAM** 

**REVIEW** and revision of all topics

**Mock Exam Week:** 1st week of HT (Paper 2 exam)

Describe what is meant by sustainable food production.

Describe the impact of change on the distribution of organisms.

transfer of biomass between trophic levels.

Describe the

Describe what affects the rate of decay.

Describe how human activities pollute the land and water.

biodiversity can be Describe maintained. deforestation

Describe how

Describe how materials are cycled in a community.

**B17** 

organising

an ecosystem

Review Task: B17

and its effects.

Describe what is meant

Describe feeding relationships in communities.

Describe the carbon cycle.

Required practical:

investigate the effect of temperature on the rate of decay of fresh milk

Describe biodiversity and why it is important.

**B18** Biodiversity and ecosystems

Describes the formation of acid rain and its effects.

by global warming.

Describe some examples of adaptation in plants.

Describe what resources plant compete for.

Describe why animals compete. Describe how to measure the distribution of living things in the environment. Describe the relationships between communities and ecosystems.

Review Task: B16

**B16** adaptations, inter. And comp.

Describe some examples of adaptation in animals

Describe how organisms are adapted for survive Required practical:

measure the population size of a common species in a habitat.

Describe factors that affect communities.

> **Mock Exam Weeks:** 5th & 6th week of HT 2 (Paper 1 exam)

Describe evidence for the Darwin's theory of evolution and its gradual acceptance.

Describe how new species arrive.

Describe what fossils can tell us about how organisms change over time.

Describe classification and the binomial naming system.

Review Task: B15

Mock Exams 1

**B15** genetics and evolution

Describe the theory of evolution.

Describe Gregor Mendel's work and how it fits with modern ideas of genetics.

Describe evidence for the origins of life and how fossils are formed.

**B14** variation and

reproduction

Describe how an event or environmental change can cause extinction.

Describe how antibiotic resistance can arise in bacteria.

Describe how technology has changed classification.

**Review Task:** B14

Describe how adult cell cloning is carried out, and the benefits and risks associated with it.

Describe how genetic engineering is carried out.

Describe the difference between genetic and environmental variation.

concerns surrounding new genetic technologies.

Describe the different ways of creating clones.

Describe how natural

selection

works.

Describe what selective breeding is and its benefits and risks.

Describe how adult cell cloning is carried out, and the benefits and risks associated with it.

Describe some of the