# BIOLOGY CURRICULUM MAP MOGK STIM 4.7 Ecology Abiotic Factors · Biotic Factors Adaptations · Carbon Cycle **Deforestation** · Global Warming 4.6 Inheritance & Evolution **DNA Structure** rotein Synthesis Sex Chromosomes Mendel Extinction Genetic Engineering

# GESTE EVIN

- Revision of all units
- 4.1 Cell Biology 4.2 Organisation 4.3 Infection 4.4 Bioenergetics Paper 2:

#### 4.6 Inheritance I.7 Ecology

Practical work - Extracting DNA

END OF WEIR 

# FURTHER STUDY Genetics • Zoology • Microbiology • Biomedical Science •

Environmental Sciences • Biochemistry • Psychology •

Botany • Sport Science • Marine Biology • Molecular Biology

#### CAREER PATHS

Nature conservation officer • Research Scientist • Nursing Forensic Scientist • Pharmacist • Physiotherapist • Education • Journalism & Broadcasting • Medicine • Veterinary Surgeon • Agriculture • Optometrist

Analysis • Attention to Detail • Communication • Practical Skills • Numeracy • Literacy • Organisation Problem solving . Research . Ethics . Logical Thinking

#### INTEREST

Biology impacts everyone through food, illnesses and nature.

#### 4.5 Homeostasis & Response

- Nervous System · Endocrine System ·
- The Brain · Contraceptives · Diabetes ·

#### ASK: How can kidney disease be treated?



**Bioenergetics** Photosynthesis

Respiration Anaerobic

Respiration -Plant Growth

### The start of your first GCSE unit

### 4.1 Cell Biology

- Cell Structure
- Microscopy
- Mitosis
- Binary Fission Transport

#### 4.2 Organisation

- The Lungs
- Transpiration
- Health & Disease Enzymes

#### **Enrichment**

END OF WELK

Teacher and students collaborate in a series of lessons following pupil interests.



#### 4.3 Infection & Response

- Bacterial Diseases
- Fungi & Protists
- **Developing Drugs**

### MD-VIIR

Practical work - Using quadrats

END OF VERR ASSESSMENT **ASK:** Why should you finish a course of antibiotics?

#### **Evolution**

- Variation Darwin & Lamarck
  - · Fossils ·

ASK:

cells.

Why are

red blood

shaped in the way they are?

#### Inheritance DNA

Reproduction

IVF

Genetic Disorders A03



### **Relationships in Ecosystems**

- · Food Chains · Food Webs · Sampling ·
- · Human Impacts on the Environment

# Infections



· Bacteria· · Viruses·

· Vaccines



## **Photosynthesis & Respiration**

- · Why do plants photosynthesise? ·
  - · Testing for Starch · Exercise ·



# **Body Systems**

- The Heart ·
- · Plant Organs·
- Food Tests ·





ASK: How does our diet affect our health?



· Animal cells · Plant Cells · Specialised Cells · · Using a microscope · Diffusion ·





### **A**01

BIOLOGY SKILL Demonstrating knowledge & understanding



Apply knowledge of scientific ideas, enquiries & techniques



BIOLOGY SKILL Interpret, evaluate, judge & make conclusions from given information