Science KS4 Biology Learning Journey

Ecology Cont:
Levels of organisation
How materials are cycled.
Biodiversity
Waste management &
Land use

Assessment

Ecology Cont:
Global warming
Triple only: Decomposition, food security, Farming techniques

GCSE Exams: Triple or combined

Ecology:
Habitats, Communities & Ecosystems
Quadrats – sampling
Adaptations
Triple: Environmental change, trophic levels & decomposition

Inheritance cont:
Genetic diseases
Selective breeding
Genetic engineering
Evidence for evolution
Genetic inheritance

Assessment

Inheritance:
Sexual & asexual reproduction
DNA
Human Genome

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Homeostasis:
Reflex arc & reaction time
Triple – the brain, the eye control of body temperature
Endocrine system
Control of blood glucose
Menstrual cycle & contraception

Bioenergetics cont:
Aerobic respiration
Anaerobic respiration
Response to exercise
Metabolism

Bioenergetics:
Photosynthesis
Maximising growth
Uses of glucose

Infection & Response Cont:
Body defence systems
Vaccinations
Antibiotics & painkillers
Discovery & Development of drugs

Assessment

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Infection & Response:
Communicable disease
Viral & Bacterial disease
Fungal and Protist disease
Triple: Microbiology & plant disease

Organisation Cont:
Digestive System
Food tests
Enzymes
Plants and active transport

Cell Biology:
Plant & Animal
Microscopes & Calculations
Transport in cells

Organisation:
Cells, Tissues & Organs
Respiratory System
The heart & Lungs
Chronic heart disease

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West Norfolk Academies Trust