Y7-Y11 Biology

Moving on to A level Biology

Variation and Evolution
- Types of variation
- Theory of evolution
- Selective breeding
- Genetic Engineering

Required Practicals
- Working out rates
- Graph skills
- Evaluating

Genetics
- Inheritance
- Meiosis
- Reproduction
- The human genome project
- DNA and genes

YEAR 11
- Contraception
- The menstrual cycle

Coordination and control
- The Nervous System
- The endocrine system
- Reflex actions
- Effect of stimulants on reaction time

Health
- Non-communicable disease
- Pathogens
- Vaccination
- Risk factors
- The immune response
- Making new drugs
- Waste management
- Pollution
- Global Warming

Ecology
- Biodiversity
- Effect of abiotic factors on the distribution of organisms
- Calculating population size
- Biotic and Abiotic factors

YEAR 10
- Transport around the plant
- Structure of a leaf
- Effect of light intensity on the rate of photosynthesis
- Photosynthesis

Plants
- The Heart
- The digestive system
- Food Tests
- Enzymes
- Effect of pH on the rate of enzyme controlled reactions

Transport
- Types of transport
- Effect of salt on rate of osmosis

Cell Biology
- Types of cell
- Microscopes
- Required practical: Microscopy
- Cell differentiation
- Stem Cells

YEAR 9
- Effect of light intensity on photosynthesis
- Anaerobic respiration
- Photosynthesis
- Aerobic respiration

Respiration and Photosynthesis
- Biodiversity
- Natural Selection
- Inheritance
- DNA

Evolution and Inheritance
- How do we breath?
- What kinds of food do we need
- How is food broken down?

YEAR 8

Breathing and Digestion

Interdependence
- Food webs
- Field studies
- Populations
- Pollination and germination
- Structure of plants

Variation and Reproduction
- How the foetus grows
- How reproduction takes place
- Variation
- Adaptations

Cells and Movement
- How do we move?
- Dissection
- The Skeleton
- Specialised cells
- Cell Structure
- Microscopy

YEAR 7

Microbiology | Physiology | Ecology | Genetics