Biology Learning Journey

FINHAM PARK SCHOOL

Go to University

Start a degree level apprenticeship

Take a gap year

Exam & Post – 16 Destination

YEAR 13

Photosynthesis

Ecosystems

Hormonal communication

Plant responses

Neuronal communication

Respiration

Communicable diseases

Classification

Populations & sustainability

Cloning and biotechnology

Manipulating genomes

Inheritance & variation

Cellular control

Biodiversity

Nucleic acids, DNA replication, protein synthesis

YEAR 12

Organising an ecosystem
What is a producer?
How are materials recycled in an ecosystem?

Biodiversity and ecosystems
What reduces biodiversity?

Adaptations, interdependence and competition
What do organisms compete for?
How do adaptations relate to their function?
How do abiotic factors affect distribution?

GCSE exams start May-June

Basic components of living systems

Plasma membranes

Enzymes

Biological molecules

Cell division

Exchange surfaces and breathing

Transport in animals

Transport in plants

Genetics and evolution
What is the evidence for evolution?
What causes extinction?

Reproduction
What are the different types of reproduction?
What is meiosis?
How are characteristics inherited?

Hormonal coordination
How are hormones transported around the body?
How are glucose levels regulated?

The human nervous system
What is homeostasis?
What are the different types of neurons?
What are reflexes?

YEAR 11

Variation and evolution
What causes variation?
What is selective breeding?
How does genetic engineering work?

Preventing and treating disease
How do vaccines work?
What are antibiotics?
How are new drugs trialed and tested?

Respiration
What is the difference between aerobic and anaerobic respiration?
What is the effect of exercise on respiration?

Photosynthesis
What is the glucose that is produced used for?
What are the limiting factors?
How does light intensity affect the rate of photosynthesis?

YEAR 10

Non- communicable disease
What is a non-communicable disease?
What are the risk factors for these diseases?
What is cancer?

Communicable diseases
What are pathogens?
What are some example of diseases and how are they spread and treated?

Organisation & The digestive system
What are the parts of the digestive system?
How do we find out what nutrients are in food?
What are enzymes?

Cell division
Why and how do cells divide?
What is differentiation?
What are stem cells?

Organising animals and plants
What is blood made up of?
What are the different types of blood vessel?
What is the pathway of blood through the heart?
How is the heart affected by disease?

Cell structure and transport
What are the different types of microscope?
What is the difference between prokaryotic and eukaryotic cells?
How are substances transported in/out of cells?

YEAR 9

Breathing
What is the structure of the lungs?
What is gas exchange?
How does exercise affect breathing?
What are some diseases that affect breathing?

Inheritance and evolution
Why do we look like our parents?
What is DNA?
How are organisms adapted?
What is natural selection?
How can we prevent extinction?

YEAR 8

Photosynthesis
How do plants make food?
How does light intensity affect rate of photosynthesis?

Respiration
What is the difference between aerobic and anaerobic respiration?
What is fermentation?

Ecology
How are materials cycled?
What are pyramids of numbers and biomass?
How are organisms randomly sampled?

Systems to cells
How do human body systems link to cells?
What is inside cells?
How do we observe cells?

YEAR 7

Digestion
What makes up our food?
How do we test food?
How is food digested?
How does lifestyle influence health?

Reproduction
How do humans reproduce?
How do plants reproduce?

Interdependence and variation
How are organisms classified?
What is the difference between continuous and discontinuous variation?