BIOLOGY LEARNING JOURNEY

Science and Research
- Research Scientist
- Biologist
- Forensic Scientist

Medicine and Healthcare
- Doctor
- Nurse
- Pharmacologist

Agriculture
- Farmer
- Tree Surgeon
- Ecologist

Careers linked to a degree in Biology

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Sport & Fitness
- Athlete
- Nutritionist
- Personal Trainer

Engineering
- Biochemical engineering
- Civil engineer
- Mechanical engineer

Police and emergency
- Paramedic
- Crime Scene Investigator
- Police Officer

BTEC Sports & Exercise Science

BTEC Applied Science

A-level Biology

Post-16

Final GCSE exams

Revision

YEAR 11

Ecosystems and material cycles
Water cycle; Decomposition TS ONLY; Predator Prey; Random Sampling- Quadrats and Transects; Adaptations for hot and cold environments TS ONLY; Abiotic and Biotic factors

Exchange & transport
Investigating respiration; The alveoli and gas exchange; Anaerobic respiration; The blood and blood vessels; The heart; Microscopy; Exchange of Substances; Specialised cells

Health and Disease
Cardiovascular disease; Physical and chemical barriers; Antibiotics and Painkillers; Discovery and development of drugs; Non-communicable disease; Communicable disease; Health and disease; The immune system; Vaccinations

Plants
Photosynthesis; Transpiration; Factors affecting photosynthesis; Absorbing minerals

Animal Co-ordination
Menstrual cycle; Diabetes; Urinary System TS ONLY; Endocrine system; Fertility; Homeostasis TS ONLY

Evolution
Variation; Evidence for evolution; Genetic engineering; Selective breeding; Theories of evolution- Darwin

Natural Selection

Genetics
Sex inheritance TS ONLY; Genetic inheritance; Human genome project; Variation - mutations; DNA structure

Cells and Control
Meiosis; Reflex arc; Stem cells; Cell cycle; The nervous system; Growth; Mitosis

Key concepts
Percentage and rate change; Osmosis; Cell transport; Enzyme activity; Enzymes in digestion; Enzymes; Prokaryotes and Eukaryotes

YEAR 10

Health and Lifestyle
Food tests; Healthy diet; Digestive system; Alcohol; Nutrients; Bacteria and enzymes in digestion; Drugs & Smoking

Ecosystem Processes
Leaves; Plant minerals; Aerobic Respiration; Food chains and webs; Ecosystems; Photosynthesis; Chemosynthesis; Anaerobic Respiration; Disruption to food chains and webs

Adaptation and Inheritance
Variation; Inheritance; Natural selection; Competition and Adaptation; Plant distribution; Continuous and discontinuous variation; Extinction; CSI techniques

Reproduction
Flowers and pollination; The menstrual cycle; Fertilisation and implantation; New technology - genetics - biotechnology; Turning points - medicines - extinction; Seed dispersal; Fertilisation and germination; Development of a fetus; Reproductive systems; Adolescence

Body systems
Movement: joints; Skeleton; Levels of organisation; Movement: Muscles; Breathing; Gas exchange

Cells
Movement of substances; Specialised cells; Observing cells; Cell division; Unicellular organisms; Plant and animal cells

Start