



BIOLOGY - KS5

Year 12

Half Term 1

Cell structure.
Biological molecules.

Half Term 2

Biological membranes
Nucleotides and nucleic acids

Half Term 3

Cell division, cell diversity and cellular organization.
Enzymes

Half Term 4

Exchange surfaces.
Communicable disease, disease prevention and the immune system.

Half Term 5

Transport in animals.
Biodiversity.

Half Term 6

Transport in plants.
Classification and evolution.
Ecosystems.
Maths statistical tests.

Year 13

Half Term 1

Communication and homeostasis.
Excretion as an example of homeostatic control.
Neuronal communication.

Half Term 2

Hormonal communication.
Plant and animal responses.
Photosynthesis.
Respiration.

Half Term 3

Cloning and biotechnology.
Cellular control.
Manipulating genomes.

Half Term 4

Patterns of inheritance.
Ecosystems.
Populations and sustainability.

Half Term 5

Exam preparation.

Half Term 6

Exam preparation.





CHEMISTRY - KS5

Year 12

Half Term 1

Atomic structure and isotopes. Compounds, formula and equations.

Half Term 2

Amount of substance. Electron structure, bonding and structure.

Half Term 3

Acids and periodicity. Redox and basic concepts of organic chemistry.

Half Term 4

Qualitative analysis. Alkanes and alkenes.

Half Term 5

The halogens and enthalpy. Alcohols and haloalkanes.

Half Term 6

Reactions rates and chemical equilibrium. Organic synthesis and analytical techniques.

Year 13

Half Term 1

Chromatography, qualitative analysis and spectroscopy. Aromatic compounds and carbonyl compounds

Half Term 2

Amino acids, amides, chirality and polyesters/polyamides. Carboxylic acids, esters and organic synthesis.

Half Term 3

Lattice enthalpy and entropy. How far? How Fast?

Half Term 4

Redox and electrode potentials and transition elements. Acids, bases and buffers.

Half Term 5

Exam preparation.

Half Term 6

Exam preparation.





PHYSICS - KS5

Year 12

Half Term 1

Development of practical skill. Foundations of physics, motion, forces in action.

Half Term 2

Development of practical skills. Foundations of physics, work, energy and Power. Materials.

Half Term 3

Development of practical skills. Foundations of physics, momentum, charge and current.

Half Term 4

Development of practical skills. Foundations of physics, energy, power and resistance. Waves.

Half Term 5

Development of practical skills. Foundations of physics, electrical circuits, quantum physics.

Half Term 6

Development of practical skills, Foundations of physics, thermal physics, circular motion.

Year 13

Half Term 1

Development of practical skills. Foundations of physics, oscillations, thermal physics.

Half Term 2

Development of practical skills. Foundations of physics, gravitational fields, thermal physics.

Half Term 3

Development of practical skills. Foundations of physics, astrophysics and cosmology, nuclear and particle physics.

Half Term 4

Development of practical skills. Foundations of physics, capacitors, electric fields, nuclear physics and particles.

Half Term 5

Development of practical skills. Foundations of physics, electromagnetism, medical imaging.

Half Term 6

Exam preparation.

