

Year 7

Becoming a scientist
Introduction to science, safety and equipment
Planning

Energy Stores-
Energy stores and resources
PHYSICS

Atoms, Elements and compounds
Atoms, Periodic table, chemical reactions, reactivity
CHEMISTRY

Particles and Mixtures
Solids, liquids, gases and separation of mixtures
CHEMISTRY

Animal Science
Animal cells, microscopes, reproduction
BIOLOGY

Plant Science
Plant cells, reproduction, leaf structure, pollination
BIOLOGY

End of Y7 test

Planning

Planning and risk

Presenting data- Bar Chart

Presenting data - Bar and scatter graph

Analysis and evaluation

Year 8

Ecology- Food chains and webs, population, predator-prey relationships, adaptation, farming

End of Y8 test

Forces
types of forces, resultant force, motion
PHYSICS

Acids and Alkalis- pH scale, neutralisation, reactions
CHEMISTRY

Organ Systems
respiration, digestion+ enzymes, circulation
BIOLOGY

Electricity- symbols, series and parallel circuits, current and potential difference
PHYSICS

Chemical Reactions- displacement, gas tests, conservation of mass
CHEMISTRY

Energy Transfers
Sound and light
PHYSICS

Planning

Presenting data

Analysis and evaluation

Planning

Analysis and evaluation

Analysis and evaluation

Presenting data - Scatter graph

Space project
The Solar system, Earth and the Moon

Microbes project
Infection, immunity & disease

Year 9

Variation- genetics, DNA, variation, inheritance, evolution
BIOLOGY

Environmental Chemistry- the greenhouse effect, acid rain, recycling and waste
CHEMISTRY

Applications of forces- Motion, stability, moments, pressure
PHYSICS

Maths in GCSE Science- graph work, rounding, ratio, shape
SCIENTIFIC SKILLS

GCSE How Science works- planning, variables, apparatus, considering data
SCIENTIFIC SKILLS

Planning

Presenting Data

Analysis and evaluation

Checkpoint test

GCSE transition units



Faculty of Science- Learning journey KS3

Organisation

respiratory system, health and cancers

Cell Biology

Animal and plant cells, diffusion, osmosis, microscopes, active transport, stem cells

Infection and response

Photosynthesis, respiration and metabolism, response to exercise

Year 9

Year 10

Y10 intro test

Biology

Biology

Homeostasis and response

Nervous system, endocrine system, hormones and reproduction, blood glucose regulation

Triple only

Plant hormones, kidney, brain, eye

Bioenergetics

Photosynthesis, respiration and metabolism, response to exercise

Y11 Oct. mock

Year 11

End of Y10 mock exam

Biology

Genetics and inheritance

Sexual and asexual reproduction, inheritance, selective breeding, embryo screening, fossils

Triple only

Cloning, Darwin and speciation

Ecology

Biodiversity, global warming, waste, land use, food chains, adaptations

Triple only

Decomposition, food security and farming

Y11 final mock

B1 GCSE Exam

B2 GCSE Exam



Atomic Structure and Periodic Table

history of the atom, atomic structure, periodic table trends

Year 9

Chemistry



CHEMISTRY

Year 10

Chemistry



CHEMISTRY

Y10 intro test



CHEMISTRY

Chemical and energy change

Reactions of metals, electrolysis, neutralisation, exothermic and endothermic reactions



CHEMISTRY

End of Y10 mock exam

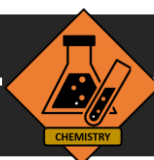
Year 11

Chemistry

Y11 Nov. mock



CHEMISTRY



CHEMISTRY



CHEMISTRY

Chemical analysis

Purity, chromatography, gas tests
Triple only
Ions and flame tests

Organic chemistry

Alkenes, Alkanes, fractional distillation
Triple only
Alcohols, DNA, carboxylic acids, polymerisation

Rate of chemical change

Factors affecting rates of reaction, how reaction rates are measured, reversible reactions

Earth's resources

Water, extracting metals, recycling
Triple only
Alloys, polymers, composites, Haber process

Atmosphere

Gases in air, climate change, carbon footprint



CHEMISTRY



CHEMISTRY

Y11 final mock

C1 GCSE Exam

C2 GCSE Exam



Energy

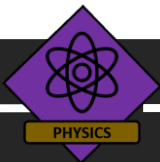
Energy stores, transfers, power, efficiency, energy resources

Triple only

Thermal insulation Required practical

Year 9

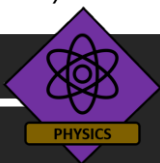
Physics



PHYSICS

Year 10

Physics



PHYSICS

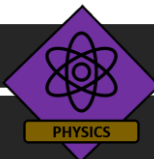
Particles

Particle theory, density, specific latent heat, internal energy, pressure

Triple only

Boyle's Law

Y10
intro
test



PHYSICS

Nuclear Physics

Atomic structures, isotopes, radioactive decay, half life and uses of radiation

Triple only

Nuclear waste, Fission, fusion, medical uses

Forces

Newton's laws, motion graphs, velocity and acceleration, momentum, stopping distance

Triple only

Pressure, moments, gears, upthrust

Magnetism

Magnets, electromagnets, DC motors

Triple only

Generators and transformers

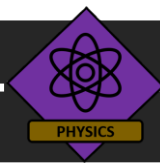
Electricity

Series and parallel circuits, resistance, charge, electrical power, mains electricity, plugs and fuses

Triple only

Static electricity

Y11
Nov.
mock



PHYSICS

Year 11

Physics



PHYSICS

End of
Y10 mock
exam



PHYSICS

Waves

Properties of waves, electromagnetic spectrum, wave speed

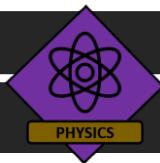
Triple only

Reflection and refraction, seismic waves, ultra-sound, lenses, black body radiation

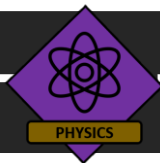
Space (triple only)

Big bang theory, red shift, life cycle of stars, orbits

Y11
final
mock



PHYSICS



PHYSICS

P1
GCSE
Exam

P2
GCSE
Exam

