



Overview

Students follow the AQA GCSE Science course and will gain a thorough grounding in each of the three sciences. Not only will they develop their knowledge and understanding of biology, chemistry and physics but they will enrich their experience by completing practical activities. Students continue to build on the knowledge and understanding gained from Year 9, studying topics that build in complexity. Lessons include regular retrieval practice and past paper questions to build up recall and application skills. Students are taught by three specialist teachers, each taking 5 lessons a fortnight.

Autumn

Biology

B1 cells

Transport in Cells, Osmosis
Practical, Microbiology, Stem
cells, Mitosis, Cancer

B2 Organisation

Digestive system, Enzymes,
Practical, Circulatory System,
Heart, Blood & Blood vessels,
Respiratory System,
Adaptations of the lungs

Chemistry

C2 Bonding

Ionic Bonding, Reactivity of
Metals, Covalent Bonding, Metallic
Bonding, Simple molecules,
allotropes of carbon, nanoparticles

C3 Quantitative Chemistry

Relative Formula Mass, Reacting
Masses, Balancing equations,
Atom Economy, Titrations

Physics

P1 Energy

Energy pathways & transfers,
Energy calculations,
Renewable & non-renewable
energy sources, insulation
investigation

P2 Electricity

Circuits & symbols, series &
parallel circuits, resistance
equation, resistance of a
wire investigation, wiring a
plug, National Grid, static

Assessment:

*End of topic test for
each unit.*

Spring

Biology

B3 Infection

Pathogens, communicable
Diseases, Viruses, Bacteria,
Fungi and Protists, Immune
Response, Vaccinations,
Clinical Trials

Chemistry

C4 Chemical Changes

Reactivity of metals, Reactions of
acids, Displacement, forming salts,
Electrolysis

C5 Energy Changes

Exothermic & endothermic
reactions, energy change
investigations, energy level
diagrams, calculating bond energy,
fuel cells

Physics

P3 Particle Model

Particle model, density
investigation, Change of state
and internal energy, Latent
heat, Gas pressure

Assessment:

*End of topic test for
each unit.*

Mid-Year exams.

Summer

Biology

B4 Bioenergetics

Photosynthesis, Adaptations
of a leaf, Respiration, Effects
of exercise on the body

B7 Ecology

Communities, Adaptations,
Cycling materials, Sampling
populations, Biodiversity,
Human impact on ecosystems

Chemistry

C6 Rates of Reaction

Rates, Effect of concentration,
effect of surface area, effect of
temperature, Catalysts

Physics

P4 Atomic Structure

Atomic Structure, History of
the atom, Alpha, Beta and
Gamma radiation, Half life,
irradiation & contamination

Assessment:

End of Year exam will
be 3 x Paper 1

*End of topic test for
each unit.*

Useful resources for supporting your child at home:

- CGP Science Revision Guide
- BBC Bitesize revision pages
- Youtube: Cognito Science lessons

Homework:

Weekly exam question and Sparx Science must be completed