



**OVERVIEW**

Students follow the AQA GCSE Combined Science course and will gain a thorough grounding in each of the three sciences. Not only will students develop their knowledge and understanding of biology, chemistry and physics but they will enrich their experience by completing practical activities and learning through discovery. 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 two teachers, each taking 5 lessons a fortnight.

**Aut**

**Biology**  
*B1 cells*  
Transport in Cells, Osmosis  
Practical, Stem cells, Mitosis, Cancer

*B2 Organisation*  
Digestive system, Enzymes,  
Practical, Circulatory System,  
Heart, Blood & Blood vessels,  
Respiratory System,  
Adaptations of the lungs

**Chemistry**  
*C1 Atomic Structure*  
Atomic Structure, development of  
atomic model, history of periodic  
table, group 1 elements, group 7  
elements

*C2 Bonding*  
Ionic Bonding, Reactivity of  
Metals, Covalent Bonding, Metallic  
Bonding, Simple molecules,  
allotropes of carbon

**Physics**  
*P1 Energy*  
Energy pathways & transfers,  
Kinetic Energy, Gravitational  
Potential Energy, Elastic  
Energy, Renewable and non-  
renewable energy sources.

*P2 Electricity*  
Circuits & symbols, series  
circuits, parallel circuits,  
resistance equation,  
resistance of a wire  
investigation, wiring a plug,

**Assessment:**  
  
*End of topic test for  
each unit.*

**Spr**

**Biology**  
*B3 Infection*  
Pathogens, communicable  
Diseases, Viruses, Bacteria,  
Fungi and Protists, Immune  
Response, Vaccinations,  
Clinical Trials, Monoclonal  
antibodies, Plant disease

**Chemistry**  
*C3 Quantitative Chemistry*  
Relative Formula Mass, Reacting  
Masses, Balancing equations

*C4 Chemical Changes*  
Reactivity of metals, Reactions of  
acids, Displacement, forming salts,  
Electrolysis

**Physics**  
*P3 Particle Model*  
Particle model, density,  
Change of state and internal  
energy, Latent heat,  
Pressure

**Assessment:**  
  
*End of topic test for  
each unit.*

**Sum**

**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**  
*C5 Energy Changes*  
Exothermic and endothermic  
reactions, energy change  
investigations, energy level  
diagrams, calculating bond energy

*C6 Rates of Reaction*  
Rates, Effect of concentration on  
rates of reactions, 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:

- Knowledge retriever and workbook (provided)
- CGP Combined Science Revision Guide
- BBC Bitesize revision pages
- Youtube: Cognito Science lessons

Homework:

*Weekly exam question and Sparx science must be completed*