Chemistry

Subject Lead: Dr L Fulford and Mr M Vinters
Email: lfulford5zrp@nsix.org.uk and mvinters97r4@nsix.org.uk

Key topics covered

Year 12
Physical Chemistry: Atomic structure, Amounts of substance, Bonding, Energetics, Kinetics, Equilibria, and Redox
Inorganic Chemistry: Periodicity, and Groups 2 & 7
Organic Chemistry: Alkanes, Alkenes, Alcohols, Halogenoalkanes, and Organic analysis

Year 13
Physical Chemistry: Thermodynamics, Rates, Acids, bases & buffers, Electrode potentials, and Advanced equilibria
Inorganic Chemistry: Group 3, and Transition metals
Organic Chemistry: Isomerism, Carbonyls, Aromatics, Amines, Amino acids, and Organic synthesis

Recommended Textbook and/or resources

Core textbook
AQA Chemistry A Level (2nd ed.) — Ted Lister & Janet Renshaw

Useful websites
Chemguide
Physics & Maths Tutor
AQA past papers and mark schemes

Also recommended
Maths Skills for A Level Chemistry (book)
A scientific calculator

Why Study the Subject/what students Like about it

Chemistry helps you understand the world at a molecular level while developing strong analytical, practical and problem-solving skills.

Students enjoy the challenge of applying ideas to unfamiliar situations, carrying out practical work and explaining how and why chemical reactions happen.

It is an excellent choice for students considering careers in medicine, dentistry, biochemistry, forensic science, pharmaceuticals, engineering, law or finance.

Opportunities outside the classroom

Students have access to additional revision resources, exam questions and eBooks to support their learning. Where available, students may also take part in enrichment activities such as university or laboratory visits and chemistry events.

Future progression/career routes

Chemistry supports progression into **medicine, dentistry, biochemistry, forensic science and other health or clinical professions**. It also opens pathways into the **pharmaceutical, petrochemical and wider chemical industries**.

