RMGS
Science – CHEMISTRY
A LEVEL

What are the aims of the course?

1. To build on the knowledge and understanding gained at GCSE into all aspects of Chemistry.
2. To introduce the different branches of Chemistry and show how the subject can be broken down into different but specific areas of study.
3. To improve the practical skills by a wider range of different investigations and use of more complex apparatus.

What does it involve?

Unit 1: Development of Practical Skills in Chemistry:
Skills of planning, analyzing and evaluating which will be assessed in written examinations.

Unit 2: **Foundations of Chemistry**:
Atoms, molecules and equations, amount of substance, redox and acid-base reactions, electrons and bonding.

Unit 3: **Periodic Table and Energy**:
Periodic table, groups 2 and 7, qualitative analysis, enthalpy, reaction rates.

Unit 4: **Core Organic Chemistry**:
Hydrocarbons, alcohols and haloalkanes, organic synthesis and analytical techniques.

Unit 5: **Physical Chemistry and Transition Elements**:
Rates and equilibrium, pH and buffers, entropy, redox and electrode potentials, transition elements.

Unit 6: Organic Chemistry and Analysis:
Aromatics, carbonyl, carboxylic acids and esters, nitrogen compounds, polymers, organic synthesis, chromatography and spectroscopy.

How is it assessed?

A Level – Year 13 (Terminal examinations at the end of the year 13)

Paper 1 Units 1, 2, 3 and 5	2hr 15 minute examination with a mixture of multiple choice, structured questions covering theory and practical skills.
Paper 2 Units 1, 2, 4 and 6	2hr 15 minute examination with a mixture of multiple choice, structured questions covering theory and practical skills.
Paper 3 All units	1hr 30 minute examination with structured and extended response questions covering theory and practical skills.

Are there any specific entry requirements?

- Students must have a minimum of a B grade in the three separate sciences at GCSE and a minimum of an A grade in Chemistry.
- If students have taken the Core and Additional Science route, they must have achieved A grades in both and an A grade in the chemistry Additional unit. In addition, a B grade in Mathematics is required.
- If students have a Level 2 BTEC, a Distinction and an A grade in Maths are required.

Why is it a useful qualification?

Essential subject for any student wishing to study any Science subject at degree level but especially medical related subjects. Chemistry demonstrates analytical and logical thinking and is therefore highly regarded by many degree subject tutors for whose subject logical thinking is required such as Law and Accountancy.