

# CHEMISTRY

Head of department: Dr E Smith

Examination board: AQA 7405



*"If you're fascinated by the world and wonder why molecules and materials behave in certain ways and enjoy **practical** work then Chemistry could be right for you. We want you to be up for the challenge of developing an understanding of **abstract concepts** and applying these ideas to **solve problems**. There will be many opportunities to get completely involved in Chemistry, both inside and outside the classroom, be it entering academic competitions, attending lectures or becoming a Chemistry Prefect, helping with Chemistry Clinic or Year 7 Chemistry club."*



## PROGRAMME OF STUDY

The course builds on the skills and knowledge developed at GCSE initially, including bonding, structure and quantitative chemistry. The course is then effectively split into three traditional areas of chemistry: physical, organic and inorganic, giving you a greater understanding of why chemical reactions happen and how these can be manipulated. You'll spend a significant amount of time in the lab developing your analytical skills, carrying out investigations and learning how to synthesise organic molecules.

You'll have the opportunity to enter into a number of prestigious academic competitions including the RSC Chemistry Olympiad, the Cambridge Chemistry Challenge and the RSC Young Analyst Competition. You will also have the opportunity to take part in a research project with Newcastle University's Chemistry department as part of the *Complementary Studies* programme, with the possibility of achieving a CREST award.

Throughout the course, you'll receive regular feedback on your work and take departmental tests based on exam-style questions.

## ASSESSMENT

- Three exams at the end of the course.
- The first two exams focus on the theoretical concepts that have been studied.
- The third exam covers practical skills and will include synoptic-style questions.
- You'll carry out a minimum of 12 common experiments, which are assessed by your teacher and used as evidence for the Practical Skills Endorsement.

## FUTURE PLANS

Chemistry is a requirement for a number of chemistry-based courses at universities including; Medicine, Dentistry and Veterinary Science. You will have developed analytical, numerical and problem-solving skills through the course, which are highly valued by employers.

## TO APPLY

Grade 8-9 at GCSE is highly desirable, and as the course has quite a mathematical component, a grade 7 in GCSE Maths is recommended.