

# Science

KS4

## Who is this course for?

In year 9, students will follow the GCSE specification which is a three year course.

## What will I learn?

The course content is varied but to a large extent concentrates on topical scientific issues and those that impact on our day-to-day lives. The topics studied are the same as those studied by triple science students. Those who wish to study science in more breadth should consider the triple option. The topics are; for Biology: Cells, organisation, infection and response, bioenergetics, homeostasis and response, inheritance, variation and evolution, ecology. Chemistry: Atomic structure and the periodic table, bonding, structure and the properties of matter, quantitative chemistry, chemical changes, energy changes, the rate and extent of chemical change, organic chemistry, chemical analysis, chemistry of the atmosphere, using resources. Physics: Forces, energy, waves, electricity, magnetism and electromagnetism, particle model of matter, atomic structure.

## What will I do?

Students will engage in a variety of learning activities to develop understanding and knowledge of the content of the course and to acquire the skills of 'Working Scientifically'. Wherever possible a practical enquiry approach is used to develop the investigative skills that 'real' scientists use, such as planning investigations, collecting, analysing and evaluating data. Students will complete 21 required practicals during the course.

## How will I be assessed?

At the end of the course in year 11 students will sit 6 exam papers. Two biology, two chemistry and two physics. Each will assess different topics. The papers are 1 hour 15 minutes. The practical skills acquired during the course form approximately 15% of the question papers.