

THE CHARLES DICKENS SCHOOL – SCIENCE DEPARTMENT

Facilities

The department has six well-equipped modern laboratories, a large teaching space able to seat 60 students and three smaller teaching spaces that are all equipped with laptops. There is also a large preparation room to serve them. We have various data-logging equipment and software that are used in all Key Stages as well as all of the usual equipment that you would expect of a modern school. There is an office for staff use.

There is also a garden which is tended to by one of the technicians and a small number of students that form an extra-curricular gardening club.

Key Stage 3

Students follow the National Curriculum in Years 7, 8 and 9. The course is arranged into topics which are Biology, Physics or Chemistry based. There is a heavy emphasis on practical work and discovery as well as developing investigative skills. The programme is supported by resources from the Collins scheme in addition to other resource packs. Students are taught set groups ranging from high ability to low ability and have six sixty minute lessons per fortnight.

Key Stage 4

Science forms a compulsory part of the Key Stage 4 curriculum. In Key Stage 4, the majority of students take AQA Combined science (trilogy in year 10 and core and additional in year 11) which is organised into separate Biology, Chemistry and Physics topics. About 25% of students opt for Triple Science where they study separate AQA GCSEs in Biology, Chemistry and Physics from year 10. The GCSE course is delivered over two years with 9 lessons a fortnight for Double Science in Years 10 and 11 and 14 lessons a fortnight for Triple Science in years 10 and 11

In all disciplines a strong emphasis is placed upon practical work. Topics studied in Biology include ecology, sustainability, microbiology, ethics, molecular biology, human physiology and biochemistry. Topics studied in Chemistry include acids and alkalis, energy and reactions and electrolysis. Topics studied in Physics include The Big Bang, electricity generation, nuclear fission and fusion and static electricity.

Beyond The Curriculum

The Science department runs a range of extra-curricular activities such as a gardening club, a science club for Year 7 students and G+T/STEM club for Key Stage 3 students.

Staffing

The Science department is staffed by a team of subject specialists. All staff are qualified to teach in both key stages. The current team includes a Lead Teacher for Science, Head of Biology, Head of Chemistry, Head of Physics, KS3 Lead teacher, Applied and Vocational Lead and three other members of staff. There are also two science technicians and an HLTA.