



Science Learning Area

LEARNING AREA

The Science Learning Area is comprised of ten specialist laboratories and two study rooms. There are two well provisioned preparation rooms which service the Science Learning Area.

The Science laboratories are laid out in pod format which allows collaborative learning and investigation work to take place between students. In addition, most of the laboratories have concertina doors between one laboratory and another which can create the opportunity for dynamic and creative teaching and learning styles. Most of the laboratories contain networked computers and every laboratory has an interactive smart board connected to an outstanding networked system. Full, high speed Wi-Fi coverage allows suites of laptops to be used anywhere in the Academy.

STAFFING

Currently there are sixteen teachers in the Science Team and there is a healthy blend of subject specialisms to provide the best opportunities for the students. The team contains two Deputy Heads who have wider school responsibilities, Head of Department and Subject Heads. The department is supported by three full time technicians.

EXAMINATION RESULTS

In 2019, 51% gained two good GCSEs at Grade 4 or above. 68.2% of those students doing triple award sciences gained grade 7-9. The students at A level also enjoyed success with 100% of the students entered for A level Biology, Chemistry and Physics passing the courses.

Destinations for students that studied A level Sciences in the Sixth Form in the last two years include: Oxford – Physics, Oxford – Chemistry, Cambridge – Natural Sciences, Cambridge – Medicine, Birmingham – Physics.



Science Learning Area

TEACHING AND LEARNING

The Learning Area groups students predominantly according to their attainment and ability from Year 9 onwards. Class sizes are typically just 26 students offering an outstanding pupil-teacher ratio. Where possible, subject specialists are used to provide students with the best opportunities for progression.

Key Stage 3

Students are taught in full mixed ability groups through their first two years. Students are provided with four and a half hours of Science teaching per week. This is fantastic for a practical subject such as Science and allows for deep learning to take place. The Key Stage 3 scheme of work has been written in-house and follows the National Curriculum for Science and is supported by a range of different differentiated resources.

Key Stage 4

At Key Stage 4, starting from a 'transition' Year 9, there are a range of learning pathways tailored to student ability and learning styles. The top set of students follow the separate Sciences route. The remainder of students follow AQA's Combined Science Trilogy GCSE where students study Biology, Chemistry and Physics.

Key Stage 5

In the Sixth Form we offer OCR A level Biology, Chemistry and Physics A levels as well as BTEC Applied Science course. All are well subscribed with many of our Key Stage 4 cohort staying on at the Academy and continuing to work with our dedicated and supportive team of staff. From September 2022, we plan to deliver T Level Science which may become a replacement for BTEC courses.

ENRICHMENT (pre/post-pandemic)

The Science Department provides a wide range of opportunities for 'Learning Outside the Classroom.' Previous opportunities include a Biology Field trip to Cannock Chase for Year 13 students; a Sixth Form Physics to CERN in Switzerland, a Lower school visit to Leicester Space Centre and the Big Bang Science Fair. and the opportunity for Year 10 students to take part in a Biological Science workshop at Aston University. Science Club, STEM Club and Medical Society are run during Session 3. Medical society students have regular guest speakers from different specialisms within the medical profession and attend the Medlink conference.