

Broughton Hall Catholic High School

Science Department

Departmental Descriptions

The Science Department has been led by Mr Brierley since 1999 and is presently comprised of 11 full time teachers, 3 part-time teachers and 3 technicians. Miss Skimming has responsibility for KS4 and Chemistry, Mrs Williams has responsibility for Biology and at present KS3 matters are coordinated between Miss Skimming and Mrs Williams. Broughton Hall Science is a friendly and thriving department to work in offering help to new teachers whether they are trainee or experienced educators.

The science department offers courses at KS3 which deliver a national programme of study in preparation for studies at KS4 where both GCSE and BTEC qualifications are studied. At KS5 A-level courses in Biology, Chemistry, Physics and Applied Science have proved both popular and successful.

Pupils at Broughton Hall perform very well in science outperforming national statistics at KS4 in the majority of progress measure including 3 levels and 4 levels of progress. Steadily improving levels of progress have resulted in a VA Score of 1000.261. This year saw our first cohort of Further Additional Science students 60% of whom made better than expected progress, mostly achieving A*-A.

At KS5 most students have enjoyed success in Physics A and AS level achieving grades A*-E and the department has an ALPS grade 5 at present but has been as high as an ALPS 3. This has facilitated students going on to study subjects ranging from Maths or Physics to Radiotherapy or Medicine and to destinations including Russell Group and Oxbridge Universities.

Our aims are to:

1. Develop and maintain students' interest in Science and related disciplines.
2. Develop in our students a wide and relevant body of scientific knowledge and understanding.
3. Help students to develop investigative skills across Biology, Chemistry and Physics.
4. Continue to develop both literacy and numeracy within a scientific context.
5. Develop transferable skills such as problem solving within our students.

Accommodation and Resources

The Science department is mainly based in 8 new purpose-built Labs with NAWIS gas and electric facilities. There are 3 science preparation rooms and a shared preparation area for use by teachers and technicians.

All laboratories benefit from state of the art Promethean interactive boards and 2 of these are apple enabled. The Science department also has access to 45 laptops for use solely within Science lessons. Practical equipment is well maintained by our experienced technicians and covers most standard practicals and topics.



Key Stage 3

Year 7 and 8 follow the Nelson Thornes Activate scheme which has recently been purchased and resourced. Assessment is via tests at the end of each topic and an end of year exam. Year 9 follow subject based schemes of work in Biology, Chemistry, Physics and How Science Works.

Assessment is again via end of topic tests and a SAT based exam and these assessments are used to give guidance on courses at KS4.

Key Stage 4

Year 10 students all study for a GCSE qualification in AQA Core Science

In year 11 we offer a GCSE qualification in Additional Science or a Btec qualification in Applications of Applied Science.

A third GCSE in Further Science is also offered as an elective over the two years.

The successful completion of these courses leads to students pursuing level 3 courses in Biology, Chemistry, Physics and Applied Science.

Key Stage 5

In years 12 and 13 students enjoy quality teaching and learning towards AQA A-levels in Biology, Chemistry, Physics and Applied Science. Students studying A levels in Biology, Chemistry and Physics typically have 2 grade B or better GCSE qualifications in Science and a grade B or better GCSE in Maths. Students with 2 Btec qualifications of Merit or better or 2 GCSE C grade or better qualifications in Science and GCSE Maths will be offered a course leading to A level Applied Science.

Extra-Curricular Activities

Intervention classes in Science are offered both after school and during lunch times to KS3/KS4 and KS5 students. There is also a Science KS4 drop in clinic available to all year 10 and year 11 students on Wednesdays 3.15 – 4.15. KS3 students enjoy investigative work done within a thriving STEM club run at lunch time. There are also intervention and general preparation classes at KS5 in all subjects.

Numerous trips out add interest and enthusiasm to the science curriculum at Broughton Hall and last year there were visits to Daresbury Laboratories for their 'Chemistry at work day', The Blood Transfusion Centre at Speke, the Blue Planet Aquarium, the Big Bang Event at Aintree, a Robotics Challenge Day at Liverpool University, Calderstones Science Challenge, an alien experience visit to Jodrell Bank and an eventful day out at Chester Zoo for our year 7 Pupils. It is also hoped to take a group of students to CERN Geneva to enjoy the biggest and most expensive Physics experiment ever!



