

St Bede's Catholic College
Science Faculty 2022/2023

Head of Science: Mrs H Powers
Vacancy: Science Teacher

Teaching in Science is at least good and often outstanding. The subjects within the faculty include Biology, Chemistry, Physics and Psychology.

Key Stage 3

All pupils follow a scheme of work based upon the AQA and Activate schemes of work. The scheme is differentiated to provide appropriate learning opportunities for pupils of all ability levels. In Years 7 and 8, classes are banded according to ability and in Year 9 classes are taught in sets based around their prior performance. A variety of assessment materials are used to track pupil progress. FFTD target data is used to predict performance. We make use of assessment materials to set interim targets and identify next steps.

Key Stage 4 Science

Pupils are following the AQA specification of GCSE. Some students study for two science GCSEs through the Trilogy Combined Science. Those achieving Grade 6 and above at the end of Year 9 are encouraged to study for 3 separate science GCSEs. This latter course attracts the majority of students.

Results

	%9-4 2019	%9-4 2020	%9-4 2021	%9-4 2022
Biology	92	100	99	99
Chemistry	91	98	97	98
Physics	96	100	99	98
Combined Science	51	59	76	76
Psychology	76	83	77	90

The development area for us is to continue to improve performance in the Combined Science groups and maintain results in the 90%+ for separate sciences whilst we develop resources for the new GCSE specifications.

Resources

The faculty currently consists of 11 fully equipped Science laboratories, a staff workroom and two prep rooms. All pupils have access to a variety of resources to support their learning and progress. These include high quality practical equipment which is continually expanded and updated, a wide range of online resources/worksheets on Kerboodle, up to date ICT facilities and a range of starter and plenary activities.

Assessment

The faculty is committed to the use of Assessment for Learning. With this in mind, targets based on prior performance are set for all pupils. Progress towards target levels is tracked using data from assessments. Assessments and feedback are used in a timely manner twice per topic (approx. 6 weeks) to enable pupils to demonstrate their enhanced understanding and skills. A range of peer and self-assessment strategies are also used to ensure all pupils make progress.

Computing

ICT has a high profile within the faculty. Each of the laboratories is equipped with a digital projector and whiteboard. We also have a class set of Chromebooks, a range of data loggers and interactive resources. In addition, the faculty has access to the school's purpose built ICT suite, equipped with up to date multimedia machines. The VLE is used extensively at Key Stage 5 in support of students' learning.

Science College

As a specialist Science College, all teachers within the faculty are expected to contribute to enrichment opportunities for pupils and to work in collaboration with staff within other faculties. The successful candidate will be expected to take a lead in developing enrichment within Science. A number of enrichment opportunities are available including Science Club, CREST awards, Gifted and Talented trips and activities, links with our local City Farm, visits to Bristol Zoo and Residential Field Studies.

Areté (Sixth Form) – A-level sciences continue to be popular within the Sixth Form. All students are encouraged to complete an Extended Project Qualification (EPQ) and for those studying a science A-level they can also complete a Gold CREST award. Students can gain support for practical skills through the Wednesday afternoon skills lab sessions to support them achieve their Practical Endorsement.

A Level Biology

This course follows the OCR A specification. This specification is designed with a content-led approach and covers the key concepts of biology with practical skills integrated throughout the modules. Emphasis throughout the course is on increasing knowledge, developing competence and confidence in practical skills and developing problem solving. Students are provided with a textbook and also have access to an online version. Biology students can also access the skills development workshop to develop their practical skills, engage in enrichment opportunities and ensure completion of the Practical Endorsement.

	2019	2020	2021	2022
% A* - B	14	50	61	50
% A* - E	86	100	100	100
Number of pupils	21	16	33	24

A Level Chemistry

The course follows OCR A specification. A level chemistry is well resourced with a modern purpose built laboratory which includes 7 fume cupboards for student use. We also run a skills development workshop on a weekly basis to support students develop their practical skills, engage in enrichment opportunities and ensure completion of the Practical Endorsement. Many students compete in the Chemistry Olympiad.

	2019	2020	2021	2022
% A* - B	29	55	60	52
% A* - E	94	100	100	100
Number of pupils	17	22	30	29

A Level Physics

The course follows OCR A specification. This specification aims to inspire learners and develop their interest in and enthusiasm for the subject, including developing an interest in further study and careers associated with Physics. Ideas are introduced in a content-led approach. The teaching of practical skills is integrated within the each of the theoretical topics and assessed both through written papers and the Practical Endorsement. Physics students can also access the skills development workshop to develop their practical skills, engage in enrichment opportunities and ensure completion of the Practical Endorsement.

	2019	2020	2021	2022
% A* - B	40	60	71	47
% A* - E	100	100	100	100
Number of pupils	10	15	21	15

A Level Psychology

This course follows the AQA specification and offers an engaging and effective introduction to Psychology. Students have the opportunity to participate in practical activities alongside developing their understanding of key theory and case studies. Students have access to online textbooks and resources.

	2019	2020	2021	2022
% A* - B	36	57	78	56
% A* - E	100	100	100	100
Number of pupils	28	30	27	16

March 2023