



COLMERS SCHOOL
& SIXTH FORM COLLEGE

THE SCIENCE DEPARTMENT

Every part of our lives is touched by Science, making it one of the most diverse and interesting subjects on the curriculum. Our aim is to share our knowledge, enthusiasm and interest in Science with our students to enable them to think critically. We believe this is done through practical experience, careful questioning, working independently and as part of a team. Key to this progress is the time to given to pupils to reflect and evaluate what they have learned.

We are preparing the next generation of Nobel Prize winners, doctors, engineers, microbiologists, astrophysicists and nurses. We need them to be scientifically literate and able to view the world around them critically and objectively - and challenge everyday assumptions which may be based upon biased views. Only through a strong foundation in Science can they make informed decisions which may affect all our lives.

Our broad and balanced 'Explore' curriculum in Years 7 and 8 fosters the pupils' natural curiosity about the world around them, whilst promoting scientific methodologies and principles. All pupils have the opportunity to carry out full and part investigations into an area of their own interest. At Key Stage 4 we follow the AQA Science curriculum. This provides a rigorous and broad basis for all students who may wish to remain at Colmers to study A Levels or go on elsewhere to continue their studies.

'Observe, question and explain'

Staffing

Currently there are nine full time teachers of Science within the school and one with a part time teaching commitment. The Science team has an excellent balance of age and experience and is one of the largest departments in the school with over 180 teaching periods per week.

The department is supported by four outstanding science technicians. They not only service the eight laboratories but also support the teaching staff. Their contribution to the success of the department cannot be understated.

Comments from the teachers...

Brett James
Assistant Headteacher
And Subject Leader for Science
Specialism: Biology and Physics
Experience: 24 years

Since joining in 1996, I have had many different roles at Colmers from Head of Year to Examination Secretary. In 2005 I was fortunate to take over the mantle of Subject Leader for Science, and have seen the department grow in number and in strength. I am very proud of how well we look out for each other and our students.

Mike Bagnall
Specialism: Chemistry
Experience: 17 years

Colmers is a great place to teach. The people I work with are like a second family, rather than just my colleagues. Together we share our expertise, support one another and work as a team.

Marie Fletcher

All staff here are well supported as NQTs and far beyond. We share lesson plans, resources and good practice. We are continually learning from each other. I have only worked here and cannot imagine working anywhere else.

Ic Biology**Specialism:** Biology**Experience:** 12 years**Harry Allen****Specialism:** Physics**Experience:** 1 year

As an NQT I have found the team ethos at Colmers to be invaluable. The selflessness of the department, working towards a common goals, has allowed me to thrive in my first year of teaching. The recently introduced Bridge curriculum, called 'Explore' for lower school science, has contributed to building an environment where students are enthusiastic about their learning and hard-working.

Lauren O'Grady**Specialism:** Physics**Experience:** 2 years

Working at Colmers, means joining a fantastically strong department. The spirit of support and collaboration between teachers within the department means we are a social team who welcome new teachers. I joined as an NQT and have been supported the whole way through.

Kelly Nevin**ic Explore Science****Specialism:** Chemistry**Experience:** 10 years

I came to Colmers as a student on my final PGCE placement and felt so lucky when I was offered a job to stay on as part of such a strong, supportive and friendly department; I can't imagine teaching anywhere else. You don't have to be mad to work here, but it helps!

Sarah Garwood**Specialism:** Biology**Experience:** 2 Years

The science department are such a supportive and friendly team! We have high expectations but the support offered help us all get there. I couldn't imagine teaching anywhere else!

Naomi Austin**Specialism:** Biology**Experience:** 5 years

My colleagues act as fantastic mentors and the technicians always go out of their way to support me. I endure a 40 mile commute into work each morning but couldn't dream of working anywhere else!

The department has a co-operative and supportive philosophy and operates a policy of sharing good practice and working together to produce resources and develop new schemes of learning.

The department is well stocked with text books and it has an excellent selection of resources. Every laboratory has a dedicated teacher computer connected to 'smartboards'. Full ICT training is a regular feature of the school and a wealth of expertise exists within the Science Department to support colleagues in the development of resources or use with smartboards and projectors.

The school has its own 'Learning Gateway' or Portal which all pupils and staff have access to inside or outside of school. Each room is networked and has access to the internet and shared departmental area so that teachers can access administrative and teaching resources from any classroom in the school.

Facilities

The department is located in North Building and consists of eight laboratories, two of which have recently been refurbished, and a preparation room.

Each laboratory has its own basic scientific equipment and a computer connected to the school network and SMART board. There are also facilities available to connect our data loggers to the SMART board allowing us to display data collected by the staff or students. We have three suites of laptops available for staff to use with the students (one per floor).

All of these facilities have a huge impact upon the teaching of Science and will continue to shape the future of learning within the department.



Curriculum

In Year 7 and 8 pupils have two, one hour lessons of science which is taught within the framework of the Bridge Curriculum. The course is called 'Explore'. At its heart is scientific enquiry and curiosity. This is a thematic approach focusing upon four themes throughout the year. The Year 7 themes are; the Ancient World, Beautiful Birmingham, Tomorrow's World and Our World.

In Year 9 pupils begin their GCSE science courses. They have one hour a week per discipline. This increases to two hours per week in Years 10 and 11. The majority of our students will follow AQA Biology, AQA Chemistry and AQA Physics as separate GCSE subjects. Based upon performance some of our students will be chosen to complete the AQA Science Trilogy Combined Science course which is worth two GCSE.

Since September 2013 we have delivered AQA A Level Biology at Key Stage 5. AQA A Level Chemistry was introduced in September 2015, with A Level Physics following the year after. These subjects have gone from strength to strength with the number of students choosing to remain to study science post 16 increasing year on year.

If you have any further questions about the Science department, or would like to arrange an informal visit, please contact Brett James, Subject Leader via email on bjames@colmers.school

Thanks for taking the time to read over this information. I look forward to reading your application if you decide to proceed.

Brett James

Assistant Headteacher – Subject Leader for Science