Introduction

Science plays an increasingly important part in all of our lives. The challenges which face the world require scientists and engineers to be at the fore of innovation. However, the changing world demands that all members of society are scientifically literate and as such are equipped to make informed choices for themselves and their families. Throughout the school our aim is to make the student experience in Science both stimulating and enjoyable.

JUNIOR SCHOOL YEAR 3 AND 4

Students are introduced to Science through topics across the disciplines, which promote scientific understanding and the development of practical skills.

Topics are relevant, accessible and promote an interest in Science and the world around us.

A visit to Whipsnade Zoo offers students in Year 3 the chance to take part in a workshop where they look at animal behaviour and eating habits. This is an enjoyable day which complements the learning in the classroom.

JUNIOR SCHOOL YEAR 5 AND 6

Building on the course in Years 3 and 4, the topic approach continues to develop scientific knowledge and experimental skills.

Year 5 have an annual ‘Science Challenge’ run by the Senior School’s Science Society as part of National Science Week.

All Year 5 pupils visit the Thinktank Science Museum in Birmingham and this presents them with opportunities to look at the planetarium, technological innovations and to consolidate their work on healthy living.

Part of the Year 6 residential trip to Kingswood is devoted to a scientific investigation into animal habitats.
SENIOR SCHOOL YEAR 7 AND 8

Combined Science is a two year course which aims to inspire students to develop their scientific skills, knowledge and understanding.

It is a hands-on, practical based course that provides a suitable foundation for further scientific learning in Year 9 and beyond.

There is a popular and active science club which meets weekly and allows students to extend their understanding by participating in fun activities outside of the curriculum.

Students participate in National Science Week events organised by older students, including practical challenges and quizzes.

SENIOR SCHOOL YEAR 9 TO 11

The sciences are taught separately from Year 9 where the preparation for IGCSE begins.

At the end of Year 9 students will choose to study the three sciences as one of two options; Double Award or Triple Award.

Students will develop their practical and investigative skills further through a wide variety of experimental work.

Internal assessment is carried out through regular testing and end of year examinations.

The IGCSE is an excellent preparation for further study of any science subject. However, the course also promotes discussion and offers many interesting opportunities for students to develop their understanding of the sciences in everyday contexts.

SIXTH FORM

Biology, Chemistry, Physics and Psychology are offered at AS and A Level.

Students are encouraged to expand their understanding of the sciences through complementary activities such as university visits, field trips and events organised by the Science Society and the Harpur Science Forum.

Students are offered the opportunity of extension teaching which allows them to take their understanding beyond A Level.

The faculty offers excellent preparation for scientific study beyond A Level including courses in the pure sciences, engineering and medically related courses.
Billy Ching Leung  MBBS BSc MRCS MSc DOHNS
OBM 1995 - 2005

Billy studied Art, Biology, Chemistry and Mathematics at A Level in BMS. He went on to study Medicine at Barts and The London School of Medicine and Dentistry and conducted his Foundation Training in London.

Billy has worked as a demonstrator supporting the anatomy classes at Kings College London, and is currently teaching undergraduate medical students at the University of Oxford where he is also a Trainee Oral & Maxillofacial Surgeon. He plans to study Dentistry to further utilise and develop his surgical experience.

Additionally, as a keen artist, Billy is training to become a medical illustrator. He has actively assisted those students at BMS interested in following Medicine by providing career talks and work experience opportunities.

“My time in Bedford Modern School was both enjoyable and pivotal, I experienced second-to-none teaching standards and facilities that complemented my academic goals. The science department was excellent in providing me with a solid science background prior to entering medical school. Since leaving BMS in 2005, the school has grown from strength to strength, delivering even better academic results. The school has a warm atmosphere with a supportive team of teachers, which is invaluable in preparing students for university and working life. My continued support to the school is a gesture of my gratitude to their nurture during my 10 years in BMS.

“I am a strong believer in education, the instilment of good fundamental values and attitudes are essential. Academia is not the ultimate goal; it is the drive and determination one should aim to achieve. I believe this school has the key ingredients in delivering such goal, as it sure did for me.”
David Brown
OBM 2000 - 2005

David is a postdoctoral researcher working in the field of extra-Solar planets at the University of Warwick. He gained his PhD in 2013 from the University of St Andrews, and before that studied Physics at the University of Warwick, graduating in 2009.

His current post is funded, in part, by the UK Space Agency; he is assigned to the upcoming PLATO mission as part of the Science Management Project Office. His time is split 50:50 between PLATO tasks and research into extra-Solar planets.

“When I joined BMS in the year 2000, I liked science. Or at least I liked the basics of it, the push to question how and why things worked the way that they did, the quest to understand the world, and the thirst for knowledge. Many years later I find myself well on the career path of professional scientist and, looking back, I can trace the decisions that led me here to my time at school. I would not be where, or who, I am today without the science teaching at BMS.

“That teaching shaped my career choices from the moment I applied to University, and those biology, chemistry, and physics lessons that I experienced have led directly to my current job. The enthusiasm, passion, and love for their subjects shown by all of the teachers in the science faculty caused me to appreciate science in new ways. They taught me to think outside the box, to push the boundaries of knowledge, to indulge my curiosity, and to never stop asking ‘why?’. I even learnt some concrete facts about how the Universe works along the way.

“I am excited that BMS continues to recognise the importance of high quality science teaching in the modern world. Building new science facilities demonstrates a continuing commitment to science; I am pleased that the excellence of the facilities will keep pace with the excellence of the teaching, allowing the staff to innovate in new ways, and giving pupils at the school the best opportunities to excel.

“When I joined BMS I liked science; when I left I loved it. I am sure that the new science faculty building will inspire a new generation of pupils to enjoy science, much as my time at BMS inspired me.”