



Bolingbroke
Academy

Science: Our DNA

Head of Department: Ms Wadham

We believe scientific skills and understanding are the foundation of our modern technological society, making Science learning incredibly important.

The Bolingbroke Academy Science Department is committed to ensuring ALL pupils make greater than expected progress in Science, preparing them for our STEM Specialist Sixth Form and for courses and careers beyond. We will deliver interesting, academically rigorous lessons to every pupil, every day, valuing the role played by support staff, other Bolingbroke departments and parents and carers in allowing us to do this.

Through implementation of our five key pledges, the expectations we have of our students and ourselves to BE BOLD can translate into enjoyment and outstanding academic achievement within Science across all 3 Key Stages.

Subject Specialist Informed Planning

Science is an incredibly exciting subject that is dynamic and complex. As subject specialists, we commit to planning carefully to allow coherent mastery of the 'Big Ideas' in Science to prepare our students for Higher Education in STEM subjects. Students will work systematically to build and deepen understanding of these central ideas in the longer term. We will ensure material is cognitively appropriate yet stimulating and current, and that there is time within our curriculum to respond to what is happening within Science every day. We pledge to continue to work collaboratively to share fantastic practice through CPD, observation and feedback cycles, pedagogical study and shared subject knowledge to ensure students receive the very best Science lessons we can offer.

Practical Work at the Core

Science is fundamentally a practical subject leading to practical based courses and careers, and we pledge that our provision will pave the way for this. Lessons will have purposeful, investigative practical work that helps to build a culture of scientific enquiry, satisfying and stimulating our students' natural curiosity about the world around them. We commit to being focused on practical elements, ranging from in depth scientific investigations to kinaesthetic activities and modelling. With long term strategy in place, students will master scientific skills over time, embedding their knowledge within real context, and deepening their understanding of core concepts through experimentation.

Progress for All

We commit to ensuring lessons maximise the potential progress of all students with appropriate stretch and support for everyone. We will challenge pupils within a growth mind-set framework to engage them, and encourage resilience to prepare them well for the challenges of their future studies and careers. We will ensure assessment is rigorous, frequent and carefully analysed to formulate our response to pupil attainment. We will only target areas that require further mastery while preventing stagnation by avoiding unnecessary repetition of content or skills.

Scientific Literacy

Studying Science is not dissimilar to learning a new language and failing to master key vocabulary can limit the potential progress of students. We pledge that as a Department will promote and prioritise Scientific Literacy from the first day in Year 7 to the last lesson before University or College. We will specifically teach the skills needed to ensure our students can access examination questions at all levels and are able to write extended responses that include sophisticated terminology, illustrating their analytical and evaluative skills.

Beyond the Classroom

We pledge to not limit learning to the walls of a classroom and restrictions of a timetable. We aim to enthuse students with fantastic opportunities beyond this, such as visits, trips and talks by professionals within the industry. Our tailored extra-curricular programme will also help to develop students whose minds and skills are ready for challenges of KS5 Science and beyond. We will offer individualised information and support for all pupils to allow for future pathways into STEM courses and careers so all students can see the value and potential of their Science learning.