

Science



Science is a core subject within the school curriculum. The aim of the Department is to provide pupils with some insight into the workings of Science and how it impacts on their life. The curriculum is designed to provide a logical progression in understanding scientific principles and how they can be applied in society.

As well as the theoretical aspects of each of the three sciences, there is an accompanying programme of practical activity designed to encourage a spirit of enquiry within the pupil.

Science at Rishworth

In Years 7 and 8, the pupils are taught in mixed ability classes. They follow the KS3 National Curriculum which we embellish to suit the needs of the pupils at Rishworth. From Year 9 onwards pupils are studying towards their Science GCSE and are taught in sets. We aim to provide each pupil with a depth and pace of learning that is matched to their ability. We are aware that young minds can develop rapidly and so sets are reviewed periodically.

Year 9 pupils have an extra Science lesson per fortnight dedicated to enhancing practical skills. These lessons have been specifically designed by the Department for the pupils at Rishworth. It is usual for pupils to begin their Science examinations in Year 10 and complete them in Year 11. Those in the top set are entered for Further Additional Science and the higher level papers. The remaining pupils are usually entered for Additional and Core Science papers at a level which matched their ability. Due to the flexibility provided by this teaching approach, the Science Department is able to offer a course which is tailored to the needs of individual pupils. This approach to teaching will alter from 2017 as the GCSE Science course has changed. Pupils in Years 9 and 10 are already following the new GCSE Combined Science course or GCSE Biology, Chemistry and Physics. These can only be examined at the end of Year 11.

There is an annual trip for the Year 10 and 11 pupils to Science Live. Here they get to listen to prominent scientists talking about their work. These include Professor Robert Winston, a medical doctor distinguished in the area of human fertility and Dr. Maggie Aderin-Peacock, a space scientist and star of Blue Peter.

Biology, Chemistry and Physics are offered at both AS and A2 Levels. All three disciplines adhere to the new and up to date AQA specifications. Teachers use modern and advanced methods to prepare pupils for their A Level examinations and beyond.

Those studying Biology visit Cranedale to enhance their A2 studies in Ecology. Chemistry students have the opportunity to visit local universities to carry out modern experimental techniques in the laboratories. The Physicists visit Jodrell Bank to explore the wonders of the universe.

Outside the Classroom

At lunchtime Science Club is open to pupils giving them an opportunity to carry out extra science projects and investigations. The aim of the club is to explore the nature of science and make it fun and accessible to all. The activities last year ranged from using our telescope to making hydrogen rockets, ice cream, investigating crime scenes and entering science competitions. There will be many more exciting experiments to get involved with this year.

Other Information

Many pupils who have studied Science at Rishworth now fill key positions in engineering, nuclear research, chemistry, veterinary science, medicine and information sciences as well as many other science related occupations.

