

Subject: Science

Subject lead: Mr B Monteith

What is provided at KS3 and/or at KS4

All pupils follow the national curriculum programme of study in Science at both KS3 and KS4.

Pupils complete the Key Stage 3 Curriculum in two years following the Exploring Science framework. Both year groups complete units of study in Biology, Chemistry and Physics, each comprising of four different topics. Pupils are formatively assessed throughout each topic and a summative assessment on completion of each topic. Each topic will provide pupils with literacy, mathematics and ICT opportunities.

The KS4 AQA GCSE specification in biology should enable students to:

- develop scientific knowledge and conceptual understanding of biology
- develop understanding of the nature, processes and methods of biology through different types of scientific enquiries that help them to answer scientific questions about the world around them
- develop and learn to apply observational, practical, modelling, enquiry and problem-solving skills, both in the laboratory, in the field and in other learning environments
- develop their ability to evaluate claims based on biology through critical analysis of the methodology, evidence and conclusions, both qualitatively and quantitatively. Biology should be studied in ways that help students to develop curiosity about the natural world, insight into how science works, and appreciation of its relevance to their everyday lives. The scope and nature of such study should be broad, coherent, practical and satisfying, and thereby encourage students to be inspired, motivated and challenged by the subject and its achievements.

Why do we teach this subject?

To create a challenging environment which raises standards of achievement and the quality of teaching and learning in Science for all students, leading to whole school improvement in performance.

The department will provide learners with a high quality and stimulating educational experience within an exciting, stimulating and supportive environment.

Science is exciting. Science is a way of discovering what's in the universe and how those things work today, how they worked in the past, and how they are likely to work in the future. Scientists are motivated by the thrill of seeing or figuring out something that no one has before.

Science is useful. The knowledge generated by science is powerful and reliable. It can be used to develop new technologies, treat diseases, and deal with many other sorts of problems.

Science is ongoing. Science is continually refining and expanding our knowledge of the universe, and as it does, it leads to new questions for future investigation. Science will never be "finished."

What do pupils gain from it/how do they benefit?

Science is an active contributor to local and national developments within Science and will encourage young people to pursue science beyond the age of 16. It will provide learners with the appropriate learning pathways so that they develop the skills needed to be active citizens within an increasingly scientific world and to progress into employment, further training and higher education according to their individual abilities, aptitudes and ambitions.

Any statutory requirements?

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/335174/SECONDARY_national_curriculum_-_Science_220714.pdf

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/381380/Science_KS4_PoS_7_November_2014.pdf