

Statement of Intent

Science is the study of how the world works - it covers the biological world of plants and animals, the particulate level of how chemical reactions take place and the “unseen” physics that underpins every process occurring. Students will study all aspects of science and develop the practical skills and critical thinking that will allow them to solve problems and evaluate unknown scenarios. Our curriculum is designed to engage students in the cutting edge of science and develop vital life skills and understanding.

Key Stage 3 Curriculum

At KS3 students have four lessons of science a week. The year is split into topics that cover all three sciences, Biology, Chemistry and Physics. Each topic will cover the fundamental theory and key language as well as practical investigations that are an essential element to all science. Homework is set once a week and the expected completion time is 30 minutes.

Key Stage 4 Curriculum

AQA Trilogy Combined Science

At KS4, the majority of students study the AQA Trilogy Combined Science course. Students have four lessons of science a week. The year is split into topics that cover all three sciences, Biology, Chemistry and Physics. Each topic will cover the fundamental theory and key language as well as practical investigations that are an essential element of the GCSE. Homework is set twice a week and the expected completion time is 60 minutes. The AQA Trilogy Combined Science course is assessed at the end of year 11 in 6 x 1 hour 15 minute exams that cover all content and practical work studied. These exams are evenly weighted in generating the two GCSE grades students are awarded.

AQA Biology, Chemistry and Physics

At KS4, the top scientists can opt to complete the AQA Biology, Chemistry and Physics courses. Students have seven lessons of science a week which are split into individual sciences. Each science will cover the fundamental theory and key language as well as practical investigations that are an essential element of the GCSE. Homework is set three times a week and the expected completion time is 90 minutes. The AQA Biology, Chemistry and Physics courses are assessed at the end of year 11 in 6 x 1 hour 45 minute exams that cover all content and practical work studied. These exams are evenly weighted in generating the three GCSE grades students are awarded.

Key Stage 5 Curriculum

AQA Biology

Students will complete the AQA Biology A Level which covers human, animal and plant biology in depth. During the course students have five lessons a week that will allow the teaching of the fundamental theory and key language as well as practical investigations that are an essential element of the A Level. Homework, with an expected completion time of five hours, is set throughout the week. Students are assessed at the end of year 13 in 3 x 2 hour exams. Topics are assessed through a mixture of short and long answer questions as well as both a comprehension task and an assessed essay.

AQA Chemistry

Students will complete the AQA Chemistry A Level which covers physical, inorganic and organic chemistry in depth. During the course students have five lessons a week that will allow the teaching of the fundamental theory and key language as well as practical investigations that are an essential element of the A Level. Homework, with an expected completion time of five hours, is set throughout the week. Students are assessed at the end of year 13 in 3 x 2 hour exams. Topics are assessed through a mixture of short and long answer questions as well as a multiple choice section in paper 3.

AQA Physics

Students will complete the AQA Physics A Level which covers the fundamentals of physics and astrophysics in depth. During the course students have five lessons a week that will allow the teaching of theory and key language as well as practical investigations that are an essential element of the A Level. Homework, with an expected completion time of five hours, is set throughout the week. Students are assessed at the end of year 13 in 3 x 2 hour exams. Topics are assessed through a mixture of short and long answer questions as well as multiple choice sections in both paper 1 and 2.

AQA Psychology

Students will complete the AQA Psychology A Level which covers psychological concepts, research and ethical issues. During the course students have five lessons a week that will allow the teaching of the fundamental theory and key language. Homework, with an expected completion time of five hours, is set throughout the week. Students are assessed at the end of year 13 in 3 x 2 hour exams. These papers are evenly weighted and include both multiple choice questions and essay extended writing work.

Edexcel Applied Science BTEC

Students will complete the Edexcel Applied Science BTEC which covers fundamental theory across all three sciences and practical investigation work. During the course students have five lessons a week that will allow the teaching of the exam theory and the practical work required for assignments. Homework, with an expected completion time of five hours, is set throughout the week. Students are assessed throughout year 12 and 13 with two exams and two coursework assignments.

Extended Learning

What we offer to extend the learning of our students

We have a range of exciting extra-curricular options for students. Currently we offer a Science club that works with KS3 students completing practical work that does not normally fit into the classroom. STEM projects throughout the year have involved construction of aircraft (in partnership with BECSLink and the Smallpeice Trust) and project work in STEM week on the sustainable planet.

What parents can do to support extended learning in this subject

To support extended learning, parents could encourage their children to ask questions about how and why everyday processes happen. Additionally, they could visit science exhibitions and encourage students to watch scientific discovery programmes.