Science

Key Stage 3

In KS3 pupils are taught by specialist teachers in all three subject areas – Biology, Chemistry and Physics – each of which consist of 2 lessons per fortnight in each subject. KS3 is skills based and pupils will be awarded an overall level (4-8) at the end of Key Stage based on the work carried out over 14 skill areas in Science. Students will develop their progression through a cycle of hypothesis, theory, practical experimentation, observation and review to obtain these 14 skills.

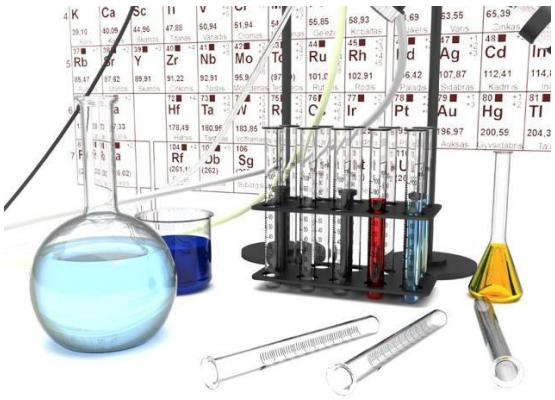
Year 7
Pupils will carry out topics such as Starting Science, States of Matter, Elements and Compounds, Cells and Systems, Food Chains, Forces and Energy.

Year 8
Pupils will extend their knowledge and understanding from Year 7 and develop the 14 key skills in topics such as Acids and Alkalis, Chemical Reactions, Food and Digestion, Microbes and Disease, Variation, Light and Sound, Space and Electricity.

Year 9
In the Autumn Term pupils will complete full investigations in all three subject areas to assess their final levels in all 14 skill areas to produce an overall 'end of key stage' level. Topics covered are Rates of Reaction, Resistance of a Wire and Anaerobic/ Aerobic Respiration.

In the Spring Term pupils begin to study common topics within the GCSE specification before choosing their options.

The Science department runs a weekly Science Club for Year 7 that allows pupils to develop their enthusiasm for Science that they would not normally encounter in their Science lessons. Trips are run throughout the year for the Science club. The most recent being The Big Bang at Birmingham NEC.



Science

Key Stage 4

In Science, there is now a greater emphasis than before on the knowledge, skills and understanding of how Science works in the world at large, as well as in the laboratory. All our pupils will start their Science GCSEs in Year 9. Depending on their progress, their interest and aspirations for the future and the advice of their teachers, pupils will continue with their study of Science in one of the following ways.

1. **Triple Award (3 GCSEs)**
   Pupils who study for Triple Award take three core units in Science in Year 10 - Biology 1, Chemistry 1, Physics 1 and sit examinations in the Summer of Year 10. They will sit Biology 2, Chemistry 2 and Physics 2 together with the Controlled Assessment in Year 11. This option will prepare pupils for further study of pure Science and Science related courses post – 16; for example: Biology, Chemistry and Physics A levels with an aim to study Science at university.

   Assessment
   The six units (B1, B2, C1, C2, P1, and P2) are assessed by written external examinations taken at Higher (A* - D) or Foundation (C – G) level. Internal practical assessment consists of practical tasks, followed by written examinations which cover all grades (A*-G) and is worth 10% of the final qualification.

2. **Double Award (2 GCSEs)**
   Pupils who study for Double Award Science take three Core units in Year 10 - Biology 1, Physics 1 and Chemistry 1. In Year 11 they will take three Additional units – Biology 2, Chemistry 2 and Physics 2 - towards their Additional Science GCSE. This option will prepare pupils for further study of Science and Science related courses post – 16.

   Assessment
   The three units of Core Science are assessed written external examinations taken at Higher (A* - D) or Foundation (C – G) level. The three further units for Additional Science are examined by written examinations taken at Higher (A* - D) or Foundation (C – G) level. Internal practical assessment consists of two practical tasks, followed by written examinations which is worth 10% of the final qualification.