



Science Faculty Information

The Science Faculty occupies one of six key learning zones within the “E-shaped” two-storey school. We have a suite of 6 purpose-built Science laboratories that are located along both sides of the Science Faculty corridor. There is also a Science staff workroom and a prep room which has chemical storage areas. All of the laboratories benefit from interactive whiteboards and speaker systems, and have a PC. All teachers are also allocated a laptop for their use, and there is a Science Faculty class set of laptops on a mobile trolley that teachers can book to use. The Science Faculty benefits from the support of a full-time, experienced Science technician, and the school also employs a dedicated reprographics technician and there is on-site IT support.

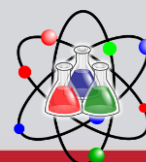
The school teaching day consists of four one-hour lessons, and students are taught in two half-year timetabled blocks for Science. Within each of the two half-year blocks, there are Science teaching groups that are arranged into broad ability groups that also take account of any behavioral needs.

The Science curriculum at KS3 is based on the NC and is taught as topics or units of work. At KS4, we offer New Specification Combined Sciences and Single Sciences. We have reviewed both the KS3 and KS4 curriculum to ensure that our full curriculum offer fully meets the needs of all of our students and gives every student the best possible opportunity to be challenged at their level, and to succeed.

In the last few years, the number of pupils studying GCSE Science in KS4 has increased including Triple Science. The results achieved over the last few years have also significantly improved:

Year	Cohort	Core	Additional
2014	54	57%	49%
2015	103	76%	68%
2016	86	51%	64%
2017	124	56%	81%

As you can see our figures for A*-C have exceeded national figures. We are predicting an upward trend for 2018 results also.



KS3 – Year 7 and 8

We are now following the new National Curriculum and have planned an accelerated scheme of work that's in line with AQA assessment model of 40% knowledge, 40% Application and 20% Evaluation - thus, bridging the gap between KS3 and 4. The assessment is rigorous and in line with Progress 8 measure giving students an opportunity to access GCSE curriculum at KS3.

Throughout the year your child will sit regular KS3 Science assessments, in preparation for this your child may find it useful to purchase copies of revision books that we are able to provide at discounted prices. Revision guides are currently available at the price of £2.50 and workbooks with exam style questions are available for £5.00. Students are encouraged to use these revision guides both within lessons and at home.

If you wish to purchase a revision guide or workbook for your child they are available to buy on Parent Pay or at the main reception in school.

Details of the KS3 curriculum and your Son/Daughters scheduled Science assessments can be found on this website.

Year 7

Topic	Assessment date (Week commencing)
Cells	25th September 2017
Particles	16th October 2017
Forces	13th November 2017
Body systems	11th December 2017
Elements, atoms and compounds	8th January 2018
Sound	29th January 2018
Reproduction	5th March 2018
Reactions	26th March 2018
Light	30th April 2018
Acids and alkalis	21st May 2018
Space	18th June 2018


Year 8

Topic	Assessment date (Week commencing)
Health and lifestyle	25th September 2017
The Periodic table	16th October 2017
Electricity and Magnetism	20th November 2017
Ecosystems	18th December 2017
Separation techniques	15th January 2018
Energy	12th February 2018
Adaptation and inheritance	12th March 2018
Metals and acid	23rd April 2018
Motion and pressure	14th May 2018
The Earth	11th June 2018



KS4 (Years 9, 10 and 11)

The Science Department offers courses to cater for all abilities and interests. If you are a hard working and very academically able student you could be offered a place in a set, which takes **3 separate GCSEs in Biology, Chemistry and Physics**. For higher to middle ability students we offer **The Combined Science Trilogy** , which counts as 2 GCSEs in Science (Combination of Biology, Chemistry and Physics). Like the Separate Sciences this can lead to students taking post 16 Science courses. For students who enjoy Science but does not like to sit too many examinations we are also offering a **Single GCSE in Biology**.

Currently the Science Department have a small group of carefully selected students studying the 3 Separate Sciences, four sets studying for 2 GCSEs in Science (Combined Trilogy) and 2 sets taking Single GCSE in Biology. All students study science for four lessons each week.

AQA Separate Sciences in Biology, Chemistry and Physics (leads to the award of 3 Science GCSEs)

Following the Separate Science courses will be a challenging experience with fast paced lessons that assume an excellent knowledge and understanding of the KS3 Science course.

Students will start this course at the start of Year 9.

AQA Combined Trilogy (leads to the award of 2 Science GCSEs)

This course covers the following topics and will begin at the start of Year 9:

Biology	Chemistry	Physics
<ul style="list-style-type: none"> ▪ Cell biology ▪ Organisation ▪ Infection and response ▪ Bioenergetics ▪ Homeostasis and response ▪ Inheritance, variation and evolution ▪ Ecology 	<ul style="list-style-type: none"> ▪ Atomic structure and the periodic table ▪ Bonding, structure, and the properties of matter ▪ Quantitative chemistry ▪ Chemical changes ▪ Energy changes ▪ The rate and extent of chemical change ▪ Organic chemistry ▪ Chemical analysis ▪ Chemistry of the atmosphere ▪ Using resources 	<ul style="list-style-type: none"> ▪ Energy ▪ Electricity ▪ Particle model of matter ▪ Atomic structure ▪ Forces ▪ Waves ▪ Magnetism and electromagnetism

Assessment: 6 x 1hr 15 mins exams

Required practical's: 21

Maths requirement: 20% overall (10% biology, 20% chemistry, 30% physics (21 equations to recall, 7 equations on equation sheet in exam).

AQA Single Science Biology (leads to the award of 1 Science GCSE)

This course covers the above content for Biology and will begin at the start of Year 9:

Assessment: 2 x 1hr 45 mins exams

Required practical's: 10

Maths requirement: 20% overall (10% biology, 20% chemistry, 30% physics (21 equations to recall, 7 equations on equation sheet in exam).



Assessments:

Throughout the year pupils sit regular KS4 End of Topic assessments and mock exams in preparation for their GCSE. End of topic tests will take place within lessons every 2-3 weeks. If students do not achieve their target grade in these assessments, their teacher will arrange for them to re sit their test after school.

Homework:

Pupils are given a Science Homework Booklet at the beginning of each new topic and they will complete a minimum of one homework task a week, with the expectation that they are doing their own revision.

We strongly believe that a child needs to be equipped with the right tools to allow them to complete homework tasks and revise to the best of their ability.

GCSE Revision Guides

We recommend students purchase the CGP Science GCSE Revision Books that are available on Parent Pay on the school website or from main reception at school at discounted rates.