

**COURSE OVERVIEW**

Students are studying one of two routes through Science. Students for both routes will sit the exams in the May/June of 2023. All students will receive individual confirmation of when each exam is:

Route 1 – AQA GCSE Combined Science: Trilogy (2 GCSE)

Students will study a range of Biology, Chemistry and Physics topics over three years. Students will sit six exam papers and each paper will assess knowledge and understanding from distinct topic areas.

Exams	Year studied	% of GCSE	Topics covered	Exam Dates
Biology Paper 1	9 & 11	16.7	Cell Biology Organisation Infection and Response Bioenergetics	May/June 2023
Biology Paper 2	10 & 11	16.7	Homeostasis and Response Inheritance, Variation and Evolution Ecology	May/June 2023
Chemistry Paper 1	9 & 11	16.7	Atomic Structure and the Periodic Table Bonding, Structure and Properties of Matter Quantitative Chemistry Chemical Changes Energy Changes	May/June 2023
Chemistry Paper 2	10 & 11	16.7	The Rate and Extent of Chemical Change Organic Chemistry Chemical Analysis Chemistry of the Atmosphere Using Resources	May/June 2023
Physics Paper 1	9 & 11	16.7	Energy Electricity Particle Model of Matter Atomic Structure	May/June 2023
Physics Paper 2	10 & 11	16.7	Forces Waves Magnetism and Electromagnetism	May/June 2023

SUCCESS CRITERIA

All pupils will be assessed regularly throughout the course to ensure that the correct tier of entry is chosen (Higher or Foundation). Students must sit the same tier of entry for all exam papers. Each written exam will be 1 hour 15 minutes in length, have a maximum of 70 marks and is equally weighted, with each exam paper forming 16.7% of the overall GCSE. Each exam paper will comprise multiple choice, structured, closed short answer, and open response questions.

All students will be encouraged to work scientifically and will develop competence in a range of apparatus and techniques during required practicals throughout the course. A minimum of 21 practicals are required for the Combined Science route. Working scientifically skills and use of apparatus and techniques will be assessed across all papers. A range of mathematical skills will also be developed throughout the course and assessed within the relevant subject areas of each exam.

The Combined Science qualification will be graded on a 17-point scale: 11 to 99, where 99 is the best grade. A student taking Foundation Tier papers will be awarded a grade within the range of 11 to 55. Students who fail to reach the minimum standard for grade 11 will be recorded as U (unclassified) and will not receive a qualification certificate. A student taking Higher Tier papers will be awarded a grade within the range of 44 to 99. A student sitting the Higher Tier who just fails to achieve grade 44 will be awarded an allowed grade 43. Students who fail to reach the minimum standard for the allowed grade 43 will be recorded as U (unclassified) and will not receive a qualification certificate.

Route 2 – AQA Separate Sciences: Biology, Chemistry and Physics (3 GCSE)



Students study Biology, Chemistry and Physics over three years and achieve GCSEs in Biology, Chemistry and Physics. Students will sit two exam papers for each GCSE and each paper will assess knowledge and understanding from distinct topic areas.

Exams for GCSE Biology	Year studied	% of GCSE	Topics covered	Exam Dates
Paper 1	9 & 11	50	Cell Biology Organisation Infection and Response Bioenergetics	May/June 2023
Paper 2	10 & 11	50	Homeostasis and Response Inheritance, Variation and Evolution Ecology	May/June 2023
Exams for GCSE Chemistry	Year studied	% of GCSE	Topics covered	Exam Dates
Paper 1	9 & 11	50	Atomic Structure and the Periodic Table Bonding, Structure and Properties of Matter Quantitative Chemistry Chemical Changes Energy Changes	May/June 2023
Paper 2	10 & 11	50	The Rate and Extent of Chemical Change Organic Chemistry Chemical Analysis Chemistry of the Atmosphere Using Resources	May/June 2023
Exams for GCSE Physics	Year studied	% of GCSE	Topics covered	Exam Dates
Paper 1	10 & 11	50	Energy Electricity Particle Model of Matter Atomic Structure	May/June 2023
Paper 2	10 & 11	50	Forces Waves Magnetism and Electromagnetism Space Physics	May/June 2023

SUCCESS CRITERIA

All pupils will be assessed regularly throughout the course to ensure that the correct tier of entry is chosen (Higher or Foundation). Students must sit the same tier of entry for all exam papers in the GCSE. Each written exam for GCSE Separate Science (Biology, Chemistry or Physics) will be 1 hour 45 minutes in length, have a maximum of 100 marks and is equally weighted, with each exam paper forming 50% of the overall GCSE. Each exam paper will comprise multiple choice, structured, closed short answer, and open response questions.

All students will be encouraged to work scientifically and will develop competence in a range of apparatus and techniques during required practicals throughout the course. A minimum of 28 practicals are required for the Separate Sciences route. Working scientifically skills and use of apparatus and techniques will be assessed across all papers. A range of mathematical skills will be developed throughout the course and assessed within the relevant subject areas of each exam.

Each GCSE qualification will be graded on a nine-point scale: 1 – 9, where 9 is the best grade. A student taking Foundation Tier papers will be awarded a grade within the range of 1 to 5. Students who fail to reach the minimum standard for grade 1 will be recorded as U (unclassified) and will not receive a qualification certificate. A student taking Higher Tier papers will be awarded a grade within the range of 4 to 9. A student sitting the Higher Tier who just fails to achieve grade 4 will be awarded an allowed grade 3. Students who fail to reach the minimum standard for the allowed grade 3 will be recorded as U (unclassified) and will not receive a qualification certificate.

REVISION



- ✓ School subscriptions to revision platforms – students have login details for Tassomai, GCSE Pod and Focus eLearning. Students will soon have login details to Kerboodle.
- ✓ Other Internet sites – Seneca and Malmesbury Science have been particularly popular with previous students.
- ✓ Mobile phone App – GCSE Pod, Tassomai, Seneca and Bitesize apps for revision on the go.
- ✓ Revision Guides – students are able to purchase these via ParentPay at a discounted price.
- ✓ Past paper practice – students will have regular access to past paper questions and mark-schemes.
- ✓ Firefly – revision PowerPoints, fact recall booklets, revision resources.

OTHER CURRICULUM ACTIVITIES

Extra revision sessions will be arranged closer to the exams.

USEFUL RESOURCES – WEBSITES

Kerboodle (school subscription to online textbooks, revision resources and assessments) -

<https://www.kerboodle.com/users/login>

Focus eLearning (school subscription to many interactive resources and required practical simulations) -

<https://www.focuselearning.co.uk/>

GCSE Pod (school subscription to a range of high-quality videos and assessments)

<https://members.gcsepod.com/login/>

Tassomai (school subscription until January 2023 for access to this revision and assessment site to support learning and challenge weaknesses) - <https://www.tassomai.com/>

Seneca (free sign-up, sets quizzes which learn from mistakes and plans for further repeats for future learning) - <https://www.senecalearning.com/>

Malmesbury Science YouTube channel (excellent channel for required practical revision) -

https://www.youtube.com/channel/UC-TM-z1-tmX1iK_H4SxVhww/playlists?view=50&sort=dd&shelf_id=1

Free Science Lessons (great for revision videos) - <https://www.freesciencelessons.co.uk/>

BBC GCSE Bitesize revision website - <http://www.bbc.co.uk/education/subjects/zrkw2hv>

Revision website (free subscription includes revision guides and question banks) - <http://www.s-cool.co.uk/gcse>

Online video tutorials (free subscription includes 50 sets of videos, exam questions, answers and a progress checker) - <https://www.my-gcse-science.com/>

Past exam papers - <https://www.aga.org.uk/subjects/science/gcse/combined-science-trilogy-8464/assessment-resources>

Please do not hesitate to contact the Curriculum Area Leader or KS4 Co-ordinator should you wish to discuss the courses.