

GCSE Science (Combined or Separate)

Science plays a major part in our lives. Its importance is certain to increase; we cannot afford to be scientifically ignorant. Through science, students learn how major scientific ideas contribute to technological change impacting on industry, business and medicine and improving the quality of life.

Who is it for?

Everyone will study science as part of the core curriculum throughout KS4. There are two courses available to students and their course will depend on the prior attainment of the student in KS3.

The majority of students will complete the AQA Combined Science GCSE which awards two GCSEs. The Combined Science GCSE is a balanced course that contains elements of Biology, Chemistry and Physics.

Those students who achieve a step 5 or more in their End of Key Stage 3 assessments in both Science and Maths will be entered for the Separate Science option. These students will complete separate GCSEs in Biology, Chemistry and Physics. These GCSEs include greater content and more depth than the Combined Science course offers.

All students that may wish to continue studying science beyond GCSEs should sit the Separate Science GCSEs. Post 16 colleges prefer students to have the separate science GCSEs as these will better prepare students wishing to study science further at A level.

What will I study?

Biology	Chemistry	Physics
1. Cell Biology	1. Atomic structure and the periodic table	1. Energy
2. Organisation	2. Bonding, structure and the properties of matter	2. Electricity
3. Infection and response	3. Quantitative chemistry	3. Particle model of matter
4. Bioenergetics	4. Chemical changes	4. Atomic structure
5. Homeostasis and response	5. Energy changes	5. Forces
6. Inheritance, variation and evolution	6. The rate and extent of chemical change	6. Waves
7. Ecology	7. Organic chemistry	7. Magnetism and electromagnetism
	8. Chemical analysis	8. Space (Separate Physics Only)
	9. Chemistry of the atmosphere	
	10. Using resources	

How will I study?

- By applying scientific knowledge to new and changing situations in a range of domestic, industrial and environmental contexts
- By evaluating the benefits and drawbacks of scientific and technological developments, including those related to the environment, personal health and quality of life and ethical issues
- By planning and carrying out investigations, considering and evaluating your own collected results and materials obtained from other sources, and using ICT where appropriate
- By selecting, organising and presenting information clearly and logically, using scientific terms and conventions, and using ICT where appropriate.

What exams are there?

Students follow the AQA specifications for science.

For all students there will be six papers: 2 Biology, 2 Chemistry, 2 Physics.

Separate Science – All exams are 1 hour and 45 minutes

Biology Paper 1 (100 Marks) Biology Topics 1-4	Chemistry Paper 1 (100 Marks) Chemistry Topics 1-5	Physics Paper 1 (100 Marks) Physics Topics 1-4
Biology Paper 2 (100 Marks) Biology Topics 5-7	Chemistry Paper 2 (100 Marks) Chemistry Topics 6-10	Physics Paper 2 (100 Marks) Physics Topics 5-8

Combined Science – All exams are 1 hour and 15 minutes

Biology Paper 1 (70 Marks) Biology Topics 1-4	Chemistry Paper 1 (70 Marks) Chemistry Topics 1-5	Physics Paper 1 (70 Marks) Physics Topics 1-4
Biology Paper 2 (70 Marks) Biology Topics 5-7	Chemistry Paper 2 (70 Marks) Chemistry Topics 6-10	Physics Paper 2 (70 Marks) Physics Topics 5-7

There is no longer any coursework but students will take part in key practicals which will be assessed within the exams.

Career Information

The Triple Science course is designed to allow students to study Biology, Chemistry or Physics at A Level. Examples of career options include:

Doctor	Dentist	Vet
Optician	Engineer	Research Scientist
Physiotherapist	Science Teacher	Nurse

The Double Science qualification is designed to provide students with a broad and balanced science education. This qualification is required for a large number of courses in further education. Examples of career options include:

Higher level students:

Physiotherapist	Research Scientist	Science Teacher
Pharmacist	Nurse	Laboratory Technician
	Medical Sales Representative	

Foundation level students:

Nursery Nurse	Nurse	Dental Technician
Veterinary Assistant	Laboratory Technician	Beautician

For further information about this course, please see Mr Stokes or any staff from the Science team.