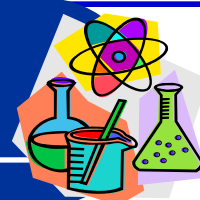


GCSE Sciences at Sir John Colfox Academy



AQA Science Courses?

Science has something to offer every student, whatever their interests or ability which is why we offer both the AQA Separate science courses of GCSE Biology, Chemistry and Physics as well as the double award GCSE Combined Science - Trilogy option.

Both of these GCSE courses offer students the opportunities to continue science to A level and beyond.

AQA GCSE Science Trilogy Course

2.1 Subject content

Biology

1. [Cell biology](#) (page 20)
2. [Organisation](#) (page 26)
3. [Infection and response](#) (page 34)
4. [Bioenergetics](#) (page 39)
5. [Homeostasis and response](#) (page 42)
6. [Inheritance, variation and evolution](#) (page 49)
7. [Ecology](#) (page 59)

Chemistry

8. [Atomic structure and the periodic table](#) (page 67)
9. [Bonding, structure, and the properties of matter](#) (page 75)
10. [Quantitative chemistry](#) (page 84)
11. [Chemical changes](#) (page 88)
12. [Energy changes](#) (page 95)
13. [The rate and extent of chemical change](#) (page 98)
14. [Organic chemistry](#) (page 104)
15. [Chemical analysis](#) (page 107)
16. [Chemistry of the atmosphere](#) (page 110)
17. [Using resources](#) (page 115)

Physics

18. [Energy](#) (page 121)
19. [Electricity](#) (page 127)
20. [Particle model of matter](#) (page 135)
21. [Atomic structure](#) (page 138)
22. [Forces](#) (page 143)
23. [Waves](#) (page 155)
24. [Magnetism and electromagnetism](#) (page 159)



Students gain practical skills throughout their GCSE courses and students are required to undertake a range of practical tasks as part of their GCSE studies. These will be assessed in each of their six exams

We provide each student with a practical skills booklet in Biology, Chemistry and Physics at the start of their studies to allow them to use this for revision at the end of year 11.

We also have a transition unit on the maths skills that students need at the start of their GCSE helping student with key maths skills they will face studying Science.

There are six papers each is 1 hour and 15 minutes in length. Biology 1 & 2, Chemistry 1& 2 and Physics 1 & 2. Each of the papers will assess knowledge and understanding from distinct topic areas.

What personal attributes does studying Science develop

practical
 numerate
 hard working
 independent
 articulate
 resilience
 inquisitive
 motivated

Which careers and degree courses can Sciences lead you to?



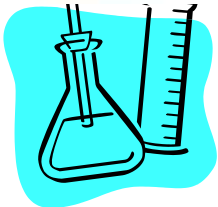
GCSE Biology

- Analytical chemist
- Astrophysicist
- Pathologist
- Forensic scientist
- Chemical engineer
- Environmental scientist
- Cosmetic scientist
- Medicine
- Dentistry
- Optician
- Marine chemist/biologist

- Pharmacy
- Biochemist
- Toxicologist
- Teaching
- Journalism
- Science advisors
- Lab technicians
- Law
- Engineering
- Food technologist
- Vet

2.1 Subject content

1. [Cell biology](#) (Page 16)
2. [Organisation](#) (Page 24)
3. [Infection and response](#) (Page 31)
4. [Bioenergetics](#) (Page 37)
5. [Homeostasis and response](#) (Page 41)
6. [Inheritance, variation and evolution](#) (Page 51)
7. [Ecology](#) (Page 66)
8. [Key ideas](#) (Page 76)



GCSE Chemistry



GCSE Physics

2.1 Subject content

1. [Atomic structure and the periodic table](#) (page 17)
2. [Bonding, structure, and the properties of matter](#) (page 26)
3. [Quantitative chemistry](#) (page 36)
4. [Chemical changes](#) (page 43)
5. [Energy changes](#) (page 51)
6. [The rate and extent of chemical change](#) (page 55)
7. [Organic chemistry](#) (page 61)
8. [Chemical analysis](#) (page 70)
9. [Chemistry of the atmosphere](#) (page 75)
10. [Using resources](#) (page 80)
11. [Key ideas](#) (page 89)

2.1 Subject content

1. [Energy](#) (page 17)
2. [Electricity](#) (page 23)
3. [Particle model of matter](#) (page 32)
4. [Atomic structure](#) (page 36)
5. [Forces](#) (page 43)
6. [Waves](#) (page 59)
7. [Magnetism and electromagnetism](#) (page 67)
8. [Space physics \(physics only\)](#) (page 72)

There are two papers for each of the Separate GCSE science courses. Each paper is 1 hour and 45 minutes in length.

Biology 1 & 2, Chemistry 1& 2 and Physics 1 & 2. Each of the papers will assess knowledge and understanding from distinct topic areas.