

KS4 Science Curriculum (for teaching from 2020-21)

Overview

Year 9

Biology	Chemistry	Physics
Cell Biology (not cell division)	Rate and Extent of Chemical Change	Energy 1
Plant Tissues, Organs and Systems	Chemistry of the Atmosphere	Electricity 1
Bioenergetics: Photosynthesis Respiration	Using resources	Waves 1

Year 10

Biology	Chemistry	Physics
Cell organisation	Periodic Table	Forces 1
Infection and Response	Chemical changes	Particle model
Homeostasis and response	Structure & bonding	Atomic structure
	Electrolysis	Energy part 2

Year 11

Biology	Chemistry	Physics
Cell division	Crude oil & fuels	Forces 2
Inheritance, variation and evolution	Chemical analysis	Electricity 2
The development of understanding of genetics and evolution	Energy changes & equilibrium	Magnetism and electromagnetism
Ecology	Chemical calculations	

Science

GCSE students will be following the AQA trilogy course, foundation or higher.

Students will sit a total of 6 papers. Below is a list of the general topics that AQA suggest will be on each paper. Students need to be familiar with the required practical elements for each paper.

Biology Paper 1.

Cell Biology; Organisation; Infection and response; and Bioenergetics.

Chemistry paper 1.

Atomic structure and the periodic table; Bonding, structure, and the properties of matter; Quantitative chemistry; Chemical changes; and Energy changes.

Physics paper 1.

Energy; Electricity; Particle model of matter; and Atomic structure.

Biology paper 2.

Homeostasis and response; Inheritance, variation and evolution; and Ecology.

Chemistry paper 2.

The rate and extent of chemical change; Organic chemistry; Chemical analysis; Chemistry of the atmosphere; and Using resources.

Physics paper 2.

Forces; Waves; and Magnetism and electromagnetism.

Key Revision Tips:

- ✓ Focus on keywords/definitions. Can you recall them?
- ✓ Can you describe important processes in more detail?
- ✓ Know your formulae, especially the ones that will not be given in the exam.
- ✓ Practice the 6 mark questions, making good use of Spelling, Punctuation and Grammar (SPAG).
- ✓ Don't waste time on topics you already know. Prioritise your focus on the topics you have not yet mastered.
- ✓ Review the required practicals

Where to find help?

- CGP revision guides: provided for all pupils in current years 9-11
- CGP offer 10-minute test books, flash cards and other revision resources that the school is able to purchase at a reduced cost. Please ask Miss. Byron if you wish to purchase any.
- Use the required practical revision booklet you will be provided to help cover key content
- www.senecalearning.com
- AQA website for past papers and mark schemes – <https://www.aqa.org.uk/subjects/science/gcse/combined-science-trilogy-8464>
- Youtube videos “freesciencelessons.com”
- BBC BITESIZE - <https://www.bbc.com/bitesize/examspecs/z8r997h>
- Knowledge organisers
- Revision hub
- Ask your teacher for help!