

# Triple Separate Science

GCSE AQA

Subject Leader: Mrs Elliott

## What's it all about?

Science is the study of the world around us. Science has an impact on all of our lives each day and an understanding of science helps us to become informed citizens in a fast changing world.

## Who should take it?

All students will work towards science qualifications in Years 9, 10 and 11. At King Charles there is an opportunity for those students who are targeted to achieve at the 6-9 range and consistently achieving above or excelling in end of topic tests during Key Stage 3 to study the separate sciences.

Students will follow the AQA separate science GCSE qualification. Students studying the separate sciences will achieve three science GCSEs at the end of Year 11. These will be in the following subjects:

- GCSE biology
- GCSE chemistry
- GCSE physics

This academic and prestigious course is recommended for students that plan to study any science (biology, chemistry or physics) at A-level.

Not all state schools offer their students the opportunity of studying for three science GCSEs but this route is highly recommended by the Institute of Physics, the Royal Society of Chemistry, the Society of Biology and the Confederation of British Industry.

## Can all students choose to take separate science?

Separate science is suitable for students that are targeted to achieve at the 6-9 range and will be consistently achieving above or excelling in end of topic tests completed so far in year 9. They should also achieve at least above in their bi- annual examinations.

Students should speak to their science teacher or Mrs Elliott if they are unsure about their progress in science.

## What will I learn on this course?

You will learn the fundamental concepts of science, including some of the ideas laid down by Isaac Newton, Charles Darwin and Dmitri Mendeleev. However, the courses encourage students to become informed 21<sup>st</sup> century citizens also. Some of the topics you will study include:

- Forces and energy
- The Periodic Table
- Classification of living things
- Our solar system
- Acids and bases
- The human body

In addition, you will consider how science can be used to conduct a balanced argument on some more modern issues:

- Should we clone humans?
- Are hydrogen fuel cells the answer to our energy needs? - Has there ever been life on mars?

In addition to acquiring knowledge and understanding, you will learn a range of investigative skills that are assessed within the final examinations.

### How will I be assessed?

All of the GCSE science courses are split into two units:

	Weighting	
Biology Paper 1	50%	A GCSE grade in Biology from grade 9 to grade 1
Biology Paper 2	50%	
Chemistry Paper 1	50%	A GCSE grade in Chemistry from grade 9 to grade 1
Chemistry Paper 2	50%	
Physics Paper 1	50%	A GCSE grade in Physics from grade 9 to grade 1
Physics Paper 2	50%	

Each examination is available at two tiers. Teachers will use internal class assessments to decide which tier is most appropriate for you.

Tier	Available Grades
Higher	4-9
Foundation	1-5

If you wish to study A levels in science (biology and/or chemistry and/or physics) at King Charles, you must achieve a grade from 9 to 6 in the separate science GCSE examinations.

The breadth of examined topics is broad and includes genetics, chemical bonding, electricity, human biology, rates of chemical reactions and forces.

### What do your current students say?

“Taking separate science was the best way to prepare for A levels in science.”

“I enjoyed seeing how science is relevant to the real world. The things I learnt have helped me to understand the things I hear on the news and read in newspapers.”

“You have to be good at writing in Science too. The extended writing questions are tough but I got really good marks because my teacher had explained to me how to do it.”

### Is there anything else I need to know?

Students must bring a calculator to all science lessons. Safety equipment, such as safety glasses, will always be provided when necessary.

### Who can I contact for further information?

[mkelliott@kingcharles1.worcs.sch.uk](mailto:mkelliott@kingcharles1.worcs.sch.uk)