

Syllabus: AQA BIOLOGY/CHEMISTRY/PHYSICS 8461/8462/8463

Please consult: Miss Y Al-Obaidi

## What we aim to do

Science encourages students to:

- develop their interest in, and enthusiasm for Science
- develop a critical approach to scientific evidence and methods
- acquire and apply skills, knowledge and understanding of how Science works and its essential role in society
- acquire scientific skills, knowledge and understanding necessary for progression to further learning

## What we study

You will study all three sciences. The topics for each science are listed below. A link to the current specification is below if you would like to read more about the subject content of each science.

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

## Skills needed

You should be on track for a Grade 6 in Year 9. Literacy and numeracy skills are built upon.

## How your work will be assessed

You will sit two exams for each science (six in total). These are worth 100% of the final GCSE Combined Science grades. You will receive a single GCSE grade for each science.

Each paper consists of a mixture of multiple choice, structured, short closed response and long open response questions, some targeting mathematical skills and knowledge of required practicals throughout. Each paper is out of 100 marks, and is 1 hour 45 minutes in length.

## What this subject can lead to when you leave The Hollyfield School

You need at least a grade 6 in Combined Science at GCSE (+ grade 7 in Maths for Physics) in order to get onto an A level Science course, or at least a grade 5 to get onto the BTEC Applied Science course.

## Possible careers

Medicine, Pharmacy, Veterinary Science, Dentistry, Astrophysics, Aeronautical Engineering, Genetics, Marine Biology, Bioengineering, Nutritionist, Climate scientist, Forensic Scientist, Microbiologist, Palaeontologist.

## Additional information/special requirements

The majority of students will study combined science. A small proportion can choose to study separate sciences.

## Relevant website links for further information on the course/subject

Specifications: <https://filestore.aqa.org.uk/resources/biology/specifications/AQA-8461-SP-2016.PDF>

<https://filestore.aqa.org.uk/resources/chemistry/specifications/AQA-8462-SP-2016.PDF>

<https://filestore.aqa.org.uk/resources/physics/specifications/AQA-8463-SP-2016.PDF>

Careers: <https://nationalcareers.service.gov.uk/job-categories/science-and-research>

