

### **The Science Department**

How can you support your child in GCSE Science?





- **3 Separate GCSE qualifications**
- $\rightarrow$  Biology  $\rightarrow$  Chemistry
- $\rightarrow$  Physics
- Where we think students will benefit more from doing Combined Science we will contact parents to discuss this further
- 6 exam total 1hr 45 100 marks Grades 9-3

## Combined Science (AQA)



### 2 GCSE

### qualifications

- $\rightarrow$  Average Paper 1
  - Grade
- → Average Paper 2 Grade

6 exams total 1hr 15 70 marks Grades: Higher 9-9 to 4-3 Foundation 55 to 1-1

Where we think students will benefit more from doing a different tier we will contact parents to discuss this further



# Both courses will allow students to study **A Level Sciences**

### End of Year Mocks



### Paper 1 One paper for each science

3 exams total 1hr 15 70 marks

## **Biology Topics**



Paper 1: 1. Cells 2. Organisation 3. Infection & Response 4. Bioenergetics

Paper 2: 5.Homeostasis & Response 6.Inheritance, Variation and **Evolution** 7. Ecology

## Chemistry Topics



#### Paper 1:

- **1. Atomic structure**
- 2. Bonding and structure
- 3. Quantitative chemistry
- 4. Chemical changes
- 5. Energy changes

### Paper 2:

- Rate & extent of reactions
- 7. Organic chemistry
- 8. Chemical analysis
- 9. Chemistry of the earth & atmosphere
- 10. Using Resources

## Physics Topics

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#### Paper 1:

- 1. Energy
- 2. Electricity
- 3. Particle model
- 4. Atomic structure

### Paper 2:

- 5. Forces
- 6. Waves
- Magnetism & electromagnetism
- 8. Space Physics (GCSE Physics only)





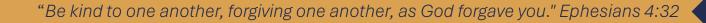


## Black pens, pencils (at least two of each)



#### A ruler (30cm) and protractor

#### Calculator – scientific, like the one used for Maths



### Useful Resources



#### 4.1.1.5 Microscopy

#### Content

Students should be able to:

- understand how microscopy techniques have developed over time
- explain how electron microscopy has increased understanding of sub-cellular structures.

Limited to the differences in magnification and resolution.

An electron microscope has much higher magnification and resolving power than a light microscope. This means that it can be used to study cells in much finer detail. This has enabled biologists to see and understand many more sub-cellular structures.

https://filestore.aqa.org.uk/resources/ science/specifications/AQA-8464-SP-2016.PDF

- BBC GCSE Bitesize:
- <u>https://www.bbc.co.uk/bitesize/subjects/zrkw2hv</u>
- Seneca Learning: <a href="https://senecalearning.com/en-GB/">https://senecalearning.com/en-GB/</a>
  - Save my exams: www.savemyexams.co.uk
    - Past Papers
- www.aqa.org.uk/find-past-papers-and-mark-schemes
- <u>https://www.physicsandmathstutor.com/past-papers/</u>
- CGP revision guides and workbooks can be purchased from
  - <u>www.cgpbooks.co.uk/secondary-books/gcse/science</u>

Students also have access to an online textbook on Kerboodle

#### www.kerboodle.com

### Revision Resources





AQA GCSE SCIENCE Series Editor: Primrose Kitten Adam Boxar Hakan Reynolds Prilippa Garcom Hulma Alom Shuha Ja Larke Jessina Walmsley OXFORD

#### Parents will be informed by letter when these resources will be available to purchase at a discounted price



#### YouTube: Free Science Lessons

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