

# Science



In the February mock exams students will sit the three Paper 2s, one each in Biology, Chemistry and Physics. This builds on core knowledge from Paper 1 and also assesses the topics set out below. Students should refer to their Merit Reports to identify strengths and areas to improve following their previous November mock exams.

## revision papers

[www.my-gcsescience.com](http://www.my-gcsescience.com) – for access to videos, multiple choice questions and practice exam questions

[www.kerboodle.com](http://www.kerboodle.com) – for access to the digital text books, plus quizzes and further examples of questions

[www.bbc.co.uk/bitesize](http://www.bbc.co.uk/bitesize) - for an overview of key ideas, plus fascinating facts, videos and quizzes

CGP Knowledge Organisers (red books) and Knowledge Retrievers (white books) have been distributed to all students. Instructions in the front of the book show how to use them effectively.

All students have also been issued with a black Practical Book which contains equipment, methods and follow-up questions about the Required Practicals. Students can also use GCSE Pod and will find additional resources on Google Classroom. Any difficulties with log-ins or other questions about revision should be referred to the Subject Teacher by sending a message on Google Classroom.

## combined science paper 2 topics

### Biology

Homeostasis, nervous system, hormones, menstrual cycle

Meiosis, DNA, genetic inheritance and disorders

Natural selection, selective breeding, genetic engineering

Evolution, extinction, classification

Ecosystems, competition, adaptation, carbon cycle, pollution, global warming

### Chemistry

Rates of reaction, reversible reactions; Le Châtelier's principle (HT)

Hydrocarbons, fractional distillation, cracking

Chromatography, gas tests

Atmosphere, global climate change

Finite and renewable resources, water, life cycle assessments, recycling

### Physics

Resultant forces, Newton's 3 Laws; resolving forces with parallelogram diagrams (HT)

Speed, velocity, acceleration on graphs

Terminal velocity, braking, elasticity; momentum (HT)

Transverse and longitudinal waves; reflection and refraction (HT)

Electromagnetic spectrum – properties, uses and risks, magnets,

## triple paper 2 topics

In addition to the units studied in Combined Science, students taking "Triple" Science (i.e. Separate Sciences) can also be assessed on:

### Biology

Brain, eye, temperature control, plant hormones, protein synthesis, history of genetics, cloning, theories of evolution, rates of decomposition, tropic levels, sustainable food production.

### Chemistry

Alkenes, alcohols, carboxylic acids, synthetic and natural polymers, testing for positive and negative ions, rusting, Haber process, fertilisers.

### Physics

Moments, levers and gears, pressure, conservation of momentum, light, lenses, sound waves, generators, transformers, the Solar System, the Universe, red shift.