

Top Tips for revising GCSE Science

20 minutes a day = 40 hours of a revision before the 16th of May (Bio Paper 1)



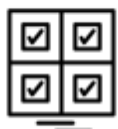
How to revise – 3 step rule



Step 1

Improve your knowledge by:

- Reading and watching videos
- Making summary notes
- Making a mind map
- Making infographics
- Making concept maps



Step 2

Check your knowledge by:

- Using your own CGP flashcards
- Using the premade flashcards on PMT
- Making and using your own flashcards
- Using Seneca
- Using Educake



Step 3

Complete timed exam style questions:

- Answer them then mark and improve
- Use the mark scheme with the question to come up with the perfect answer
- Use just the mark scheme and try to work out the question

By only doing the first 2 steps you are only covering AO1 (knowledge) which makes up only 40% of your exams. You must continue to step 3 and complete exam style questions to ensure you cover AO2 and AO3 skills of applying and analysing/evaluating.

Want a grade 7/8/9? In addition to your knowledge being secure, you need to practice as many data and practical questions as you can. What could make each practical more valid? Can you apply your knowledge of Science skills to other non core practicals too?

Biology Topics

Paper 1: Biology 1 – topics 1-5

- Key concepts in biology
- Cells and control
- Genetics
- Natural selection and genetic modification
- Health, disease and the development of medicines

Paper 2: Biology 2 - topic 1 + topics 6-9

Examined

- Key concepts in biology
- Plant structures and their functions
- Animal coordination, control and homeostasis
- Exchange and transport in animals
- Ecosystems and material cycles

PPE 2; Biology 2, Chemistry 2 and Physics 2 topics covered up until February half term.

Chemistry Topics



Paper 3: Chemistry 1 – topics 1-4

- Key concepts in chemistry,
- States of matter and mixtures
- Chemical changes
- Extracting metals and equilibria
- Separate chemistry 1 (TRIPLE ONLY)

Paper 4: Chemistry 2 - topic 1 + topics 6-8

- Key concepts in chemistry
- Groups in the periodic table
- Rates of reaction and energy changes
- Fuels and Earth science
- Separate chemistry 2 (TRIPLE ONLY)

Physics Topics



Paper 5: Physics 1 – topics 1-6

- Key concepts of physics
- Motion and forces
- Conservation of energy
- Waves
- Light and the electromagnetic spectrum
- Radioactivity
- Astronomy (TRIPLE ONLY)

Paper 6: Physics 2 - topic 1 + topics 8-15

- Key concepts of physics
- Energy - Forces doing work
- Forces and their effects
- Electricity and circuits
- Static electricity (TRIPLE ONLY)
- Magnetism and the motor effect
- Electromagnetic induction
- Particle model
- Forces and matter

GCSE Combined Science (Biology) | GCSE Biology

Investigating biological samples with a microscope

Investigate the effect of pH on enzyme activity

Investigate osmosis in potatoes

Investigate the effect of light intensity on the rate of photosynthesis

Investigate the rate of respiration in living organisms

Investigate the relationship between organisms and their environment

Additional practicals needed for GCSE Biology

Investigate the use of chemical reagents to identify starch, reducing sugars, proteins and fats

Investigate the effects of antiseptics, antibiotics or plant extracts on microbial cultures

GCSE Combined Science (Chemistry) | GCSE Chemistry

Investigate the composition of inks by simple distillation and chromatography

Investigate the change in pH of a fixed volume of HCl on the addition of calcium hydroxide

Preparation of pure, dry hydrated copper sulfate crystals

Investigate the electrolysis of copper sulfate solution with inert (graphite) and copper electrodes

Investigating the rate of a reaction by a) measuring the production of a gas and b) by observing a colour change

Additional practicals needed for GCSE Chemistry

Acid alkali titration using burette, pipette and a suitable indicator

Identify the ions in unknown salts using the tests set out in the specification

Investigate the temperature rise of a known mass of water by some common alcohols

GCSE Combined Science (Physics) | GCSE Physics

Investigate the relationship between force mass and acceleration with trolleys

Investigate the suitability of equipment to measure the speed frequency and wavelength of a wave in a solid and a fluid.

Investigate the densities of solids and liquids

Investigate the refraction in rectangular glass blocks

Investigate the extension and work done when applying forces to a spring

Use circuits to a) investigate the relationship between potential difference, current and resistance for a resistance in a filament lamp and b) test series and parallel circuits using resistors and filament lamps

Investigate the properties of water by determining the specific heat capacity of water and obtaining a temperature time graph for melting ice

Additional practical needed for GCSE Physics

Investigate how the nature of a surface affects the amount of thermal energy radiated or absorbed.

Please go to the GCSE Science Revision Page on Sharepoint that includes links to useful websites, walk and talk mocks and categorised exam questions.