



GCSE Science



What

can you do to help with
mock exam
preparations?



- Ensure you have the right resources to revise from
 - Try making your own resources from your class notes/revision guides
 - Be **ACTIVE** not **PASSIVE** in the revision process
 - Make sure you have a black pen, pencil, ruler and calculator for all Science exams and for lessons
 - Know your exam dates – ensure that you know what to revise for and when. (*Paper 1 mocks are after October half term, Paper in Spring term*)
 - Attend relevant accelerated learning sessions
- Use the resources on the Year 11 Science Google Classroom:

p6ekeep

- If you are stuck on something – ask a Science teacher to help you in a lesson or revision session or message them on your Google Classroom



– you are not just going to get magically ‘unstuck’ on exam day!

GCSE Science Exam



Preparation

BIOLOGY – 10 top tips!

1. Know your exam question command words... *Name, describe, explain (say why), calculate (you need a calculator!), suggest – do you know what you’re supposed to be doing in your answer?*

2. Know your jargon (key words)...

You’ve got to know lots of key words; particularly in Biology. Know what they mean and when/how to use them! Make a glossary, cover up the meanings and test yourself writing out or saying out the definitions.

3. Simplify your diagrams...

Biology has got lots of diagrams! Practise drawing them out, strip them back each time until you’re left with just the bare facts which will make them easier to remember ■

4. Learn real examples...

*You might get asked for examples in the exam – but even if you don’t, having solid memories of examples will help you to recall and explain the main facts. E.g. in Homeostasis, how is blood sugar controlled? **5.***

Learn to deal with data...

Did you know that you’ll get asked questions on stuff that you don’t have to revise for? These are usually data handling questions – mainly drawing graphs and performing calculations. ALWAYS double check your calculations and show your working out! Can you calculate a mean and a percentage? What about outliers?

6. Use clever little memory tricks...

Simplify long passages of information into lists. Make up silly words or sentences to help you to remember – use mnemonics and practise them!

7. Know both sides of the argument...

Some questions are about discussing big important moral issues and others ask you to compare and contrast two sets of facts or data to create a balanced argument. Mostly you should pretend you’re a neutral observer – if a conclusion is asked for, give your opinion at the end.

8. Write the right amount...

Writing a whole page for a two mark question is not going to earn you any more than two marks and wastes your time! Look to see how many marks are on offer and try to include that many points or linked key words.

9. Find out what you need to know...

Use the booklet of checklists provided to audit your knowledge. Identify what needs to be covered again and what needs help on – PRIORITISE! Use www.aqa.org.uk if you want further information on the specification.

10. Learn to Love equations... 😊

*You’re going to have to quote equations, or fill gaps in them. You will need to learn them! For example: **carbon dioxide + water** → **glucose + oxygen**. What process is this the equation for? What is missing? Write out key equations, then get someone to test you!*

Paper 1 Paper 2

Biology topics 1–4:

Cell Biology; Organisation; Infection & response; Bioenergetics

Biology topics 5–7:

Homeostasis and response; Inheritance, variation & evolution; Ecology



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Preparation

CHEMISTRY – 10 top tips!

1. Write the right amount...

Writing a whole page for a two mark question is not going to earn you any more than two marks and wastes your time! Look to see how many marks are on offer and try to include that many points or linked key words.

2. Revise with the Periodic Table...

Learn to find your way around the Periodic Table... start with it in the middle of a large sheet – annotate around it. What groups and blocks of elements should you know? What are their key physical properties?

Patterns in reactivity? Take your sheet and write sets of key facts – break it down one chunk at a time.

3. Learn the experiment questions ('required practicals')... *"Johnny conducted an experiment..." questions are common – particularly for the required practicals. Ensure you know the difference between an independent, a dependent and the control variables. Be able to suggest*

safety precautions, draw key apparatus used, how to minimise errors or improve the method etc.

4. Master the definitions and jargon (key words)... *You've got to know lots of key words, what they mean and when/how to use them! Make a glossary, cover up the meanings and test yourself writing out or saying out the definitions.*

5. Learn how to do unit conversions ...

How do you convert from cm^3 to dm^3 or vice versa? In an exam question, look out for calculations that need converting to dm^3 or litres first.

6. Get electron shell diagrams sussed ...

A Chemistry exam without electron shell diagrams would be like a car without wheels! Practise drawing atoms, then ions and covalent bonds. Learn how electrons are given away, received or shared.

7. Learn to balance equations ...

You'll be amazed how often balancing equations crops up in questions – it's a skill worth practising. Many students are daunted by balancing equations – but just use a pencil and apply trial and error. Remember you can only balance by putting large numbers in front of chemical formulae. Also remember to give STATE SYMBOLS! – (s), (l), (g) or (aq).

8. Learn the equations – ALL of them...

Okay, there's quite a few of them, but it's no worse than learning French Vocab. Learn the general equations to save your sanity – then you just need to substitute in the correct chemical names in the exam.

9. Conquer your fear of Moles...

Learn the definition and the formula: number of moles = mass in g / M_r of the compound. Be able to rearrange it and apply it. Practise as many questions as you can find!

10. Take on calculations one-by-one... 😊

Chemistry calculations are hard – but there's not as many as in Physics. Write out a list of the calculation types (mostly Paper 1). Write out a method/worked example for each one. Then do as many practise questions as you can find! Always show the steps of your working out in an exam question.

Paper 1 Paper 2

Chemistry topics 8–12: Atomic structure and the periodic table; Bonding, structure, and the properties of matter; Quantitative chemistry; Chemical changes; and Energy changes

chemical change; Organic chemistry; Chemical analysis; Chemistry of the atmosphere; and Using resources.

Chemistry topics 13–17: The rate and extent of



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PHYSICS – 10 top tips!

1. Show

your working out...

You can still get marks even if you give the wrong answer! But, you need to show the examiner the steps of your working out – he or she is not a mind reader!

2. Use formula triangles...

If you find rearranging equations difficult then learn the triangles instead. Remember, not all the formulae are on the equation sheet, so identify and learn the ones that aren't!

3. Get the UNITS right...

Always include units in your answer unless already given – learn the different units and what they mean. Try to identify what units are being used in a question so you can convert them if necessary. E.g. g to kg. **4.**

Use clever little memory tricks...

Use these whenever you have lists of things to remember. E.g. the mnemonic 'Richard of York Gave Battle in Vain' is used to remember the colours of the **SPECTRUM**.

5. Make your graphs accurate ...

Most marks are awarded for plotting to +/- half a small square accuracy – so take your time! Plot with a **SHARP** pencil.

If a line of best fit is straight, use a ruler. If the plots make a curved shape, draw a smooth curve! **6. Get to**

know your calculator! ...

Sounds obvious, doesn't it. But, bring your **OWN** calculator to the exam – one you've practised with. If you have a scientific calculator, only use the fancy buttons that you're sure about!

7. Practise the five big question types ...

Calculate, name/state, describe, explain, suggest. For **EXPLAIN** (the most common one) there are two steps – first, say what's happening, then try to say **WHY** or **WHAT THIS MEANS**. For example: more people in a car = more mass = greater braking distance.

8. Find out what you need to know ...

Use the booklet of checklists provided to audit your knowledge. Identify what needs to be covered again and what needs help on – PRIORITYSE! Use www.aqa.org.uk if this helps. ■

9. Make sure your answer isn't ridiculous ...

Check your working out! Essentially, think about if the answer seems sensible or ridiculous. If you're stuck multiply or divide the numbers available and see if the answer is realistic... e.g. 'calculate the speed of the bicycle' – if the answer is 0.002m/s this is way too slow, if the answer is 82m/s – you'd have to be Superman to make it go that fast! **10.**

Get circuit diagrams sussed... 😊

Learn the circuit SYMBOLS first. Figure out if the circuit is in SERIES (all the components in one loop) or in PARALLEL (components on more than one branch). Then have a go at connecting the symbols together. Use a pencil and ruler!

Paper 1 Paper 2

Physics topics 18–21:

Energy; Electricity; Particle model of matter; and
Atomic structure.

Physics topics 22–24:

Forces; Waves; and Magnetism and
electromagnetism