

A Parent's Guide to **Free GCSE** Science Revision Resources

*Just in case your Science is
a little rusty!!!*



My "GO TO" for GCSE Science Revision at Home

So you used to love Science at school and feel like you could do a good job at helping your child with their revisions?

Great to hear!!! It turns out science has moved on a bit since we were in uniform. The good news is that there is so much available on the internet that you could use, to get up to speed with the GCSE content. The bad news is that you may be spending more time choosing the best resource than actually learning new content. So this guide will save you time as I am sharing MY "GO TO" for free GCSE Science resources.

Remember: make sure the resource matches the exam board and course (combined science vs triple science).

At the end of this guide there is a topic checklist for AQA so you can check what your child needs to cover.

This guide is for YOU, to help you to do a good job. Your child might have their own favorite resources and that is fine.

My "GO TO" for Videos

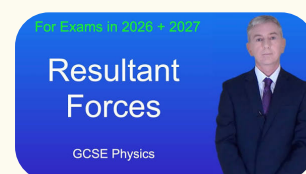
Why it helps: Visual and auditory at the same time. Some students just don't enjoy reading a crammed page on a revision guide!



Cognito: Definitely my favorite. I like the pace, the visuals that help with understanding, and the friendly voice. The videos are short and cover all the GCSE content. However it is not clear what is extra for triple science, so the list at the end of this guide will help.

Click [here](#) and scroll down for access to the full playlist.

freesciencelessons: This guy has been here forever making education videos!!! my official thanks to him because he helped me a lot back in the days as a young teacher. I like him because he explains things so well. He will also mention if the video is for triple science only which will help, and the videos are separated into paper 1 and paper 2.

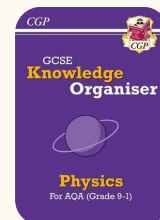
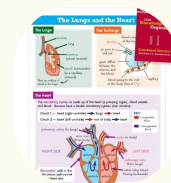


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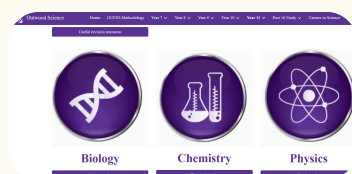
My "GO TO" for Reading Material

Why it helps: Firstly, some students do prefer reading or having the information fixed in front of them, either to scan at once or to be able to re-read for comprehension instead of having to play back. This is personal choice, I like to use different formats. Secondly, often the key ideas stand out visually and the keywords are highlighted. It can be easier to spot what is important and needs to be remembered.

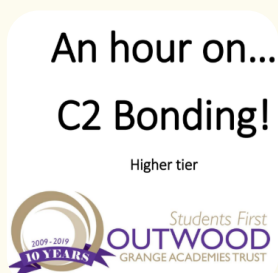
CGP knowledge organisers: Ok, this one is not a freebee, apologies! CGP is a well known publisher for revision guides. I like these mini ones, they are a5 size, with more picture/diagrams than writing. Not the best to explain how things work because they are very condensed, but superb for knowing what to MEMORISE. So this would combine well with videos, and could be used to make flashcards. They are pretty cheap too, especially if you buy them secondhand. Available for combined science higher or foundation, and for triple too.



Type "CGP knowledge organiser" in your search bar.



Outwood Science: This is a website produced by Outwood Grange Academy for their students. Your child might have access to something similar from their own school. This one is available to anyone. It has so much resources so this could be the ultimate resource if you could only chose one. It has summary notes, recorded lessons (they are full on though, not just quick revisions) and exam questions. What I like best is that it is all organised by topics. So you click on one topic, use it to recap the topic, make revision cards, and test your child with real exam questions.



Click [here](#) for access to the Outwood Science website.

Then we've got **BBC Bitesize** that everyone knows. Surprisingly not my favorite, only because I don't find the organisation easy to navigate. But it has some interactive quizzes specific to topics, so it is always nice to check understanding and knowledge after having covered a specific topic. It goes through the solutions too. There is something for all exam boards as well.



Click [here](#) and chose the right subject.

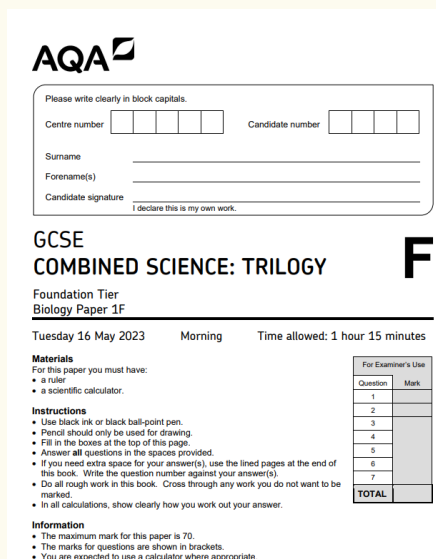
My "GO TO" for exam questions

Why it helps: great for active retrieval, decoding command words in the question, finding out strong and weaker areas, knowing what the mark scheme demands, practicing in time conditions (as a rule of thumb, one minute per mark). Possibly the single most effective revision strategy.

Physics and Math Tutor website. Your child could tell you that too.

Either get a past paper from the past paper section, or what's particularly good is that, in the revision tab, there are questions by topic. I always go there to find specific questions for my students. And you have the mark scheme as well, which is super important to look at to see if your child is getting the marks and why not. Warning, it could cause arguments !!!

One thing though, if you are looking for combined science questions by topics, on the revision box, you will need to select either Biology, Physics or Chemistry. The questions will be relevant to both combined science and triple, but it is specified if the question is for triple students only. Hope that makes sense!!



The image shows the front cover of an AQA GCSE Combined Science: Trilogy Foundation Tier Biology Paper 1F exam paper. The cover is white with black text and a large 'F' logo on the right. It includes fields for Centre number, Candidate number, Surname, Forename(s), and Candidate signature. It also states the date (Tuesday 16 May 2023), time (Morning), and duration (1 hour 15 minutes). There are sections for Materials, Instructions, and Information. A table for Examiner's Use is also present.

AQA

Please write clearly in block capitals.

Centre number Candidate number

Surname

Forename(s)

Candidate signature

I declare this is my own work.

GCSE

COMBINED SCIENCE: TRILOGY

F

Foundation Tier

Biology Paper 1F

Tuesday 16 May 2023 Morning Time allowed: 1 hour 15 minutes

Materials

For this paper you must have:

- a ruler
- a scientific calculator.

Instructions

- Use black ink or black ball-point pen.
- Pencil should only be used for drawing.
- Fill in the boxes at the top of this page.
- Answer all questions in the spaces provided.
- If you need extra space for your answer(s), use the lined pages at the end of this book. Write the question number against your answer(s).
- Do all rough work in this book. Cross through any work you do not want to be marked.
- In all calculations, show clearly how you work out your answer.

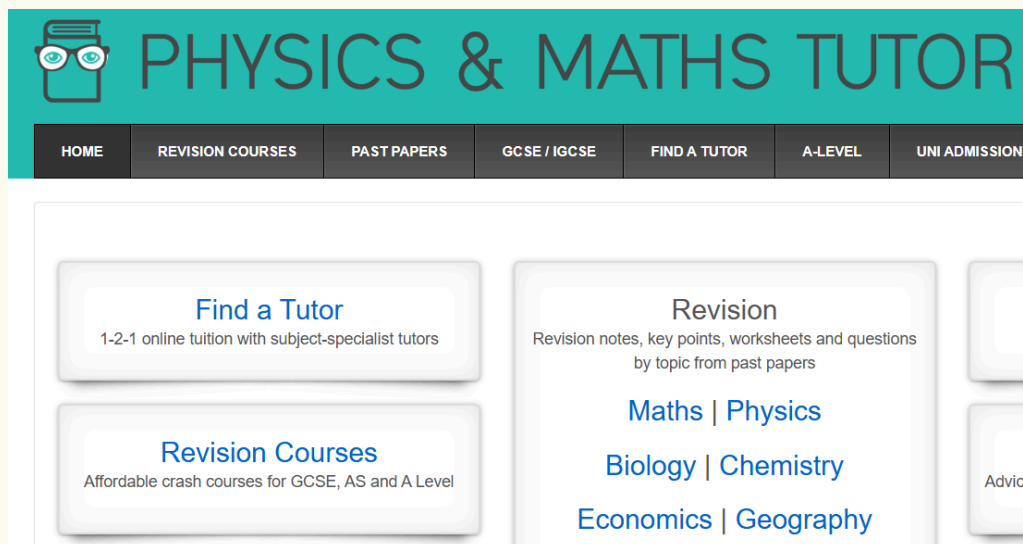
Information

- The maximum mark for this paper is 70.
- The marks for questions are shown in brackets.
- You are expected to use a calculator where appropriate.

For Examiner's Use	
Question	Mark
1	
2	
3	
4	
5	
6	
7	
TOTAL	

Click [here](#) for the website, and make sure you select the correct paper between foundation/higher/separate or combined .





My "GO TO" for retrieval practice

Why it helps: Remembering actively strengthens recall more than simply rereading notes.

Flashcards: They are great for recall. Ok they can be time-consuming but making them is part of the revision process and will help with long term memory because it is an active process. I use them myself as a tutor in my revision courses, as I think they are a great tool. Save time by maybe just write flashcards on things that your child definitely doesn't know well. But flashcards will be pointless if once done, they are just left on the side. When I was helping my teenager boy with his GCSEs, I had them stuck on the fridge (since that was THE place he would get to most often). Remember to test your child with them often.

Mind maps / blurting: That simply requires your child to write down everything they know about a topic. Then check against teacher notes or revision guides to see what your child has omitted. That gives a focus on what to memorise.

Quick Quizzes: as well as the quizzes on the resources above, your child will definitely know some quick quizzes on TikTok that are useful as a one minute activity that can be done in the car, bus stop, or while swiping. My top choice is obviously my quizzes [here](#) , simply because I am biased!!!

My "GO TO" for Required Practicals

Why it helps: highly featured in exams papers.

For this, video demonstrations are best in case your child forgot what they did in class or if they haven't actually carried out the practical. The Outwood website is good for this. Click [here](#) for Physics, [here](#) for Biology and [here](#) for Chemistry.

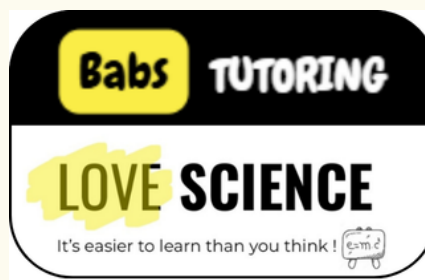
I love their revision mats because you have to complete them, then you can check your answers. Also, the questions on those mats are often asked at the exam.

**So you now have the updated knowledge,
congratulations 😊**

**Your next mission is to arm yourself with unshakeable
patience while trying to convince your teen that
TikTok is not the sole resource material for revisions.
Good luck 👍**

**But if you need support, get in
touch:**

www.babstutoring.co.uk



AQA topics checklist

(highlighted topics are for **separate science** only)

AQA Biology

Unit 1 – Cell Biology

- Cell Structure
- Cell Division
- Transport in Cells

Unit 2 – Organisation

- Levels of organisation from cells to organisms.
- Animal Organs and Systems
- Plant Organs and Systems

Unit 3 – Infection and Response

- Communicable Diseases
- Treating and Preventing Disease
- Monoclonal Antibodies
- Plant Diseases

Unit 4 – Bioenergetics

- Photosynthesis
- Respiration

Unit 5 – Homeostasis and Response

- Homeostasis
- The Human Nervous System
- The Brain
- The Eye
- Control of Body Temperature
- Hormonal Coordination in Humans
- Water and Nitrogen Balance
- Hormones in Human Reproduction
- Plant Hormones

Unit 6 – Inheritance, Variation and Evolution

- Reproduction
- DNA and the Genome
- DNA Structure
- Genetic Inheritance
- Variation and Evolution
- Cloning
- Understanding Evolution
- Classification of Living Organisms

Unit 7 – Ecology

- Adaptations, Interdependence, and Competition
- Organisation of an Ecosystem
- Decomposition
- Impact of Environmental Change
- Biodiversity and Human Interaction
- Trophic Levels
- Food Production

AQA Chemistry

Unit 1 – Atomic Structure and the Periodic Table

- Structure of the atom
- History of the atom
- Separation Techniques
- Periodic table

Unit 2 – Bonding, Structure, and the Properties of Matter

- Chemical Bonds
- Structures
- Nanoparticles

Unit 3 – Quantitative Chemistry

- Chemical Measurements
- The Mole Concept
- Calculating concentrations in g/dm^3 and mol/dm^3
- Gas Volumes & Atom Economy

Unit 4 – Chemical Changes

- Reactivity of Metals
- Reactions of Acids
- Electrolysis

Unit 5 – Energy Changes

- Exothermic and Endothermic
- Chemical Cells and Fuel Cells

Unit 6 – The Rate and Extent of Chemical Change

- Rates of Reaction
- Reversible Reactions

Unit 7 – Organic Chemistry

- Hydrocarbons
- Functional Groups
- Synthetic and Natural Polymers

Unit 8 – Chemical Analysis

- Purity and Chromatography
- Identification of Ions
- Gas Tests

Unit 9 – Chemistry of the Atmosphere

- The Atmosphere

Unit 10 – Using Resources

- Sustainability
- Materials
- The Haber Process

AQA Physics

Unit 1 – Energy

- Energy Changes
- Power and Efficiency
- National and Global Resources

Unit 2 – Electricity

- Circuit Rules.
- Domestic Electricity
- Power Transfers
- Static Electricity

Unit 3 – Particle Model of Matter

- Density & States
- Internal Energy.
- Particle Motion in Gases
- Work done on gases

Unit 4 – Atomic Structure

- Structure of the atom
- History of the atom
- Radiation
- Medical Uses & Fission & Fusion

Unit 5 – Forces

- Basic forces
- Moments, Levers & Pressure
- Motion

Unit 6 – Waves

- Properties
- Reflection & Lenses

Unit 7 – Magnetism and Electromagnetism

- Fields & Motors
- The Generator Effect

Unit 8 – Space Physics

- Our Solar System
- Life Cycle of a Star
- Red-Shift