



How to Revise Science

1. Identify which topics you need to learn for each paper.



Remember the paper 1's all take place before May half term, so these topics need to be review first.

	Biology	Chemistry	Physics
Paper 1's	<ol style="list-style-type: none"> 1. Cell Biology 2. Organisation 3. Infection and response 4. Bioenergetics 	<ol style="list-style-type: none"> 1. Atomic structure and Periodic table 2. Bonding, structure and properties of matter 3. Quantitative Chemistry 4. Chemical changes 5. Energy changes 	<ol style="list-style-type: none"> 1. Energy 2. Electricity 3. Particle model of matter 4. Atomic structure.
Paper 2's	<ol style="list-style-type: none"> 1. Homeostasis and response 2. Inheritance, variation and evolution 3. Ecology 	<ol style="list-style-type: none"> 1. The rate and extent of chemical change 2. Organic chemistry 3. Chemical analysis 4. Chemistry of the atmosphere 5. Using resources. 	<ol style="list-style-type: none"> 1. Forces 2. Waves 3. Magnetism and electromagnetism 4. Space physics. * (separates only)

2. Make a timetable



1. Write down on a timetable/calendar when your exams are.
2. Work backwards from the dates of these exams to identify when you will be able to do your revision.
3. For your science sessions identify a focus/topic for each session (remember some topics won't come up until after half term so you maybe able to catch up on these nearer the time.)
4. Make sure you plan to cover the harder content earlier to give yourself time to seek help when needed.
5. Also try to mix the subjects and content you revise so that subjects don't get missed especially if you find them harder or less enjoyable.

General Science Skills



1. Make a list of key terms and what they mean - these are often what examiners want to see in answers and therefore earn marks.
2. Practice drawing diagrams with labels - diagrams can help us explain complicated concepts and are easier to understand and recall.
3. Make sure you know the required practicals that could come up on each paper - questions will often be based around these key practicals.

Required Practicals



1. Make sure you can identify the independent and dependent variables in the required practicals - remember the independent is the one that changes in an investigation and will be in the first column of a table.
2. List at least two or three control variables for each practical.
3. Try to explain how the results relate to the science of each practical e.g. how does concentration affect the rate of reaction.

Practise your maths skills



1. Make sure you can calculate means and spot anomalies.
2. Practice your graph plotting and lines of best fit - some graphs may also need you to decide on a scale or draw a tangent to work out a gradient.
3. Practice using equations and solving calculations - remember in physics you will have an equation sheet.
4. Make sure you can convert between units e.g. time in minutes into seconds, kilograms or milligrams into grams.

Practice applying your knowledge



1. In exams you'll be presented with questions set in unfamiliar contexts. To answer these you'll need apply what you've learnt during the course.
2. A good way to get better at applying your knowledge is by doing practice questions - always try to identify which area of the subject a question is related to.
3. Try to link content, practical knowledge and mathematical techniques from different topics and how they link together.

Biology



1. Make sure you learn the Processes and Cycles that are a key part of biology - e.g. photosynthesis, respiration.
2. Use flow charts to learn the steps that need to take place, condensing the key ideas into their individual boxes - this will help you to visualise the process and correct order.
3. Use mnemonic or acronyms to help you remember key stages.

Chemistry



1. Practice using the periodic table to identify - symbols, the number of protons/electrons, the number of electrons in the outer shell, the common ions.
2. Practice interpreting equations - identifying reactants and products, the states of reactants/products using state symbols.
3. Practice calculating formula masses (Mr's), concentrations (g/dm^3) and number of moles.

Physics



1. Practice using and rearranging formulas try to use the following steps:

Pick a
formula



Substitute
values into
formulae



Rearrange
formulae (if
needed)



Calculate
value

2. Practice converting between units e.g. time (mins to seconds) or energy (kilojoules to joules).