What does revision look like in Science?

The following common revision techniques have been proven to be the least effective:

- Highlighting text
- Summarising texts
- Reading and Re-reading information

Although you may feel comfortable with these methods there are a variety of techniques for you to use instead. See below…

Flashcards

Create cards that have questions on one side and answers on the other.
You could create your own or using online tools such as: Quizlet

Once made use the Leitner method to increase retention:
How to study flashcards using the Leitner system - YouTube

How to use in Science

- Definitions of **keywords**
- **Equations** (Physics, Chemistry and Biology)
- Measurement **units** (e.g. g/dm³ concentrations)
- Circuit **symbols**
- **Required practical** methods (create cards to show the stages of each required practical)
- **Evaluation**: cards to show the advantages and disadvantages of a scientific process (e.g. pros and cons of using stem cells)
- Maths **calculations** (e.g. mean, gradient on a graph)

Learning maps

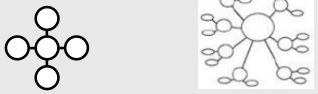
Graphic organisers are a fantastic way of **processing** information and presenting it in a clear way that helps you to remember.

They can be used to make links, compare, show processes etc.

These can be made yourself or you can use online tools such as: coggle

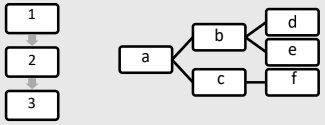
How to use in Science:

- Use **spider diagrams** or **mind maps** to show links (e.g. for a whole topic on Forces)



- Use a **Venn diagram** to compare and contrast (e.g. eukaryotic and prokaryotic cells.

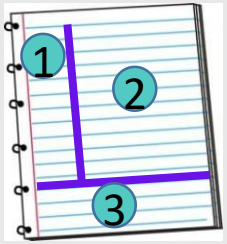
- Use **process diagrams** to sequence scientific processes (e.g. controlling blood sugar levels)



Cornel notes

Use this method to make your **notes effective**. This can be from a lesson, a revision book or a revision video.

Watch the YouTube clip for an explanation of how to make them: https://www.youtube.com/watch?v=ErSjc1PEGKE



1 **Key points** – write down the main points/keywords/diagrams/key questions/study prompts. (do this after making the notes in section 2)

2 **Notes** – In this space you record concisely, simply the things you are LESS likely remember. Not full sentences, use diagrams, lists, abbreviations, equations etc.

3 **Summary** – The most important step that is carried out after the note taking in section 2. This helps to reinforce learning. Write down the main ideas so this section can be used as a quick reference point

Retrieval practice

Testing what you know in Science is a great way to revise and train your brain to remember.

You can create your **own** quizzes using apps such as Quizlet and memrise

There are also **phone apps** with ready made quizzes based on your exam board (AQA) specification. Great examples include:

Temple run

GCSE bitesize

How to use in Science:

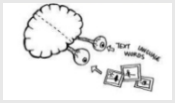
- Multiple choice questions
- True or false questions
- Short explanation questions
- Odd one out
- If this is the answer what is the question?

Spaced: Test on old and new topics and mix them up
Knowledge organisers: use these to create your 'must know' quizzes
Use for: equations, math's skills, scientific skills, required practicals, key concepts, anything!
Test yourself and get **others to test you.**

What does revision look like in Science?

Dual Coding

This is the method where you put **pictures alongside text** to reinforce memory and retention of knowledge.



What to do?

1. Use simple drawings with simple text descriptions
2. Your drawing is there to represent your understanding of that topic
3. Draw links between different images

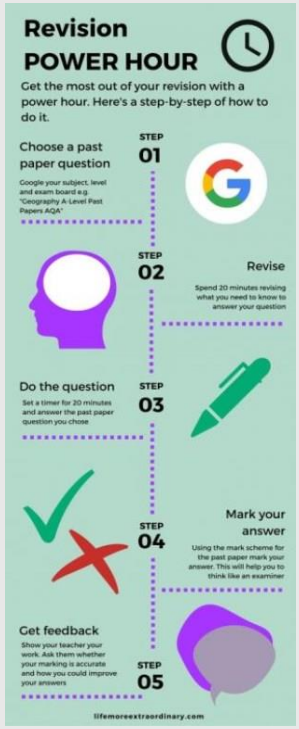
How to use in Science:

- Annotate diagrams:

- Comic strips (e.g. a comic strip outlining digestion or a comic strip to show how to carry out the method for one of your required practicals such as spring extension)

Make sure you are confident with the overall topic before you start to revise the details.

The Power Hour



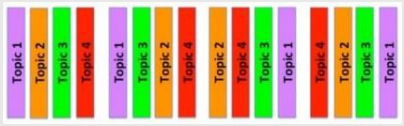
Plan time where you can practice **applying** your knowledge to **exam style questions.**
These must **challenge** you and remember **practice makes perfect**!

How to use in Science:

- Use the **power hour template** above when going through practice questions for the first time. You can get practice papers from the AQA website and your teacher
- Pull apart a **model answer** to a 6 mark question (from your teacher). Identify the **key points** and where the student got their **marks**.

Interleaving

Don't revise all your topics at once (cramming).
Revise **small chunks** of topics at a time (e.g. **20 mins.**) and then move onto another 'chunk' of a topic for next 20 minutes. This will improve your **memory**.



e.g. 20 minutes on covalent bonding, then 20 minutes on homeostasis and the 20 minutes on energy transfers.

How to use in Science:

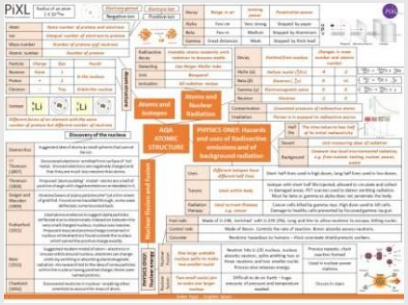
- Create a **revision timetable** to plan when you are going to cover every topic.
- Revise your **least confident topic first** e.g. forces
- Then go over the topics again
- Use your **flashcards** to test yourself on these topics as you go through them
- Keep **reviewing your revision timetable** as your confidence grows in certain topics (i.e. don't spend the same amount of time on a topic that you are now more confident in)

Knowledge Organisers

Create knowledge organisers for every topic. Use **colour**, **diagrams** and **box** your text so it is organised for your brain to process and **retain**.

How to use in Science:

- Complete at end of topic to highlight key points and process information
- Include: labelled diagrams, keywords and definitions, tables, equation triangles etc.
- Create them for every required practical. Include the method, diagram of equipment, variables, safety precautions, improvements to experiments



REVISION: THE BASICS


Calm space to revise


Limit distractions

and drink lots of water


Sleep well


Plan: revision timetable


Take breaks

Student summary hand out

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Power Hour

Choose an exam question ❼ revise ❼ answer question ❼ mark ❼ feedback

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