



Revision Revolution



The Revision Revolution

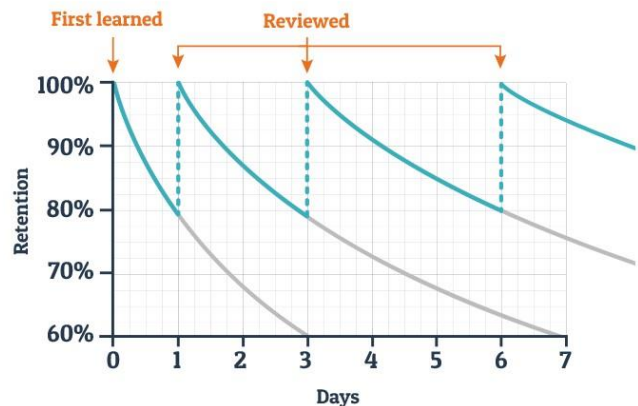
The Science of Learning

In recent years, there has been lots of research around the science of learning and how we learn and retain information.

In summary, what do we know about memory?

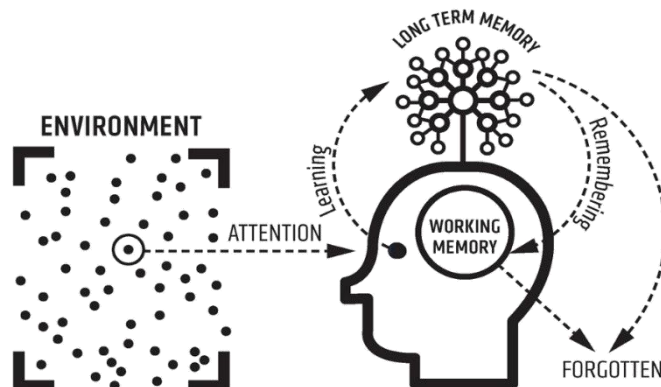
- Forgetting is completely natural. Research has shown that over time you forget a majority of what you've learnt, and it happens immediately.
- Information, if not revisited, is 'lost' from our memory.
- Consistent practice and revisiting previous material strengthens memory and boosts learning.
- Our working memory is finite and limited and so overloading this or cramming for revision doesn't work.

Typical Forgetting Curve for Newly Learned Information



Essentially, with memory, it's *use it or lose it!*

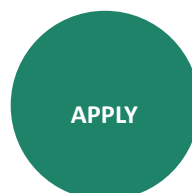
- We know examinations place huge cognitive demands on pupils and require the retrieval of large bodies of knowledge from long-term memory.
- But, according to the cognitive psychologist, Dan Willingham, more progress has been made in our understanding of **cognitive science** in the last five years than in the previous two and half thousand years.
- That means, after lots of research, we now have an evidence-informed understanding of the **most effective revision strategies**. These strategies will strengthen memory and improve retrieval (*very helpful in exams*).



Contents

All revision strategies in this booklet will help with one or more of the following techniques:

- **SUMMARISE:** reducing large amounts of information about a topic down to the key essential points.
- **MEMORISE:** taking steps to try to store the information in your mind.
- **RETRIEVE:** taking opportunities to recall information to strengthen long –term memory.
- **APPLY:** testing what you have remembered and developing skills through practice.
- **REVIEW:** carefully assessing what you have remembered and what you still need to master.



Strategy	Page
Knowledge Organisers	4
Flash Cards & the Leitner System	5
Retrieval Practice	7
Mapping	10
Cornell Notes	12
Memory Tricks & Tips	14
Revision Review	15
Deliberate Practice	17
Using a Revision Timetable	18
The 5 Step Study Plan	24
Ineffective: Don't CHEAT your revision	25
Wellbeing: Staying happy & healthy	26
Useful Apps	28

Knowledge Organisers

Knowledge organisers contain a summary of the facts and key knowledge of a topic which can be used for memorising, testing, and reviewing knowledge.

- You can find subject/topic knowledge organisers on the **Success – Subject Resources** page.
- Use the **20-minute Knowledge Organisers plan**:
 1. Spend **3 minutes** reading and re-reading the section of the knowledge organiser.
 2. Spend **2 minutes** trying to recall the information in your head or say it out loud. You could ask yourself 'how' and 'why' questions. This is called '**Elaboration**'.
 3. Put your KO away and write out the topic and answers relevant to the information – spend about **10 minutes** on your Qs and & As.
 4. Spend the last **5 minutes** checking your answers by looking again at the knowledge organiser and writing any corrections in a green pen.



- 1. Memorise it.** Read a section of your knowledge organisers. Repeat to yourself from memory until you think you have got it right.
- 2. Cover it up.** Put your knowledge organiser away so you cannot copy it. This will mean that your brain will have to work harder, meaning it is more likely to stay in your long-term memory.
- 3. Write it down.** Get a blank sheet/notebook and write out what you can remember. Even if you are finding it difficult, do not look back at your knowledge organiser but think hard and challenge yourself to recall. You can date it and compare with other attempts in the future.
- 4. Check it.** Refer to your knowledge organisers and check your work against it.
- 5. Correct it.** Make corrections using a green pen and continue this process until you can recall the information.

Flash Cards

The use of flashcards is for low stakes testing to improve recall and to strengthen memory.

Gather information to create the flashcard. Use your books, textbooks and revision guides.



Select the most important information to put on your flash cards.



Write/draw the information on one side and write the answer on the other side.

An effective flashcard may include the following:

- A key term/word with definition on the back.
- A key question with the answer on the back.
- A key date with the event on the back.
- A key equation with its use in practice on the back.
- A past paper question/plan and a model answer on the back.

Making good flashcards:

- One side of the flashcard should be a single question

and its answer on the reverse.

- Select the essential information to go on each flashcard. You could use topic checklists, knowledge organisers or revision guides to help you choose.
- Break complex concepts down so that they cover multiple cards.
- Use drawings to illustrate answers.

Making meaning with flashcards:

- **Ask yourself questions about individual cards.** 'What else is this related to?', 'Why is this important?' and 'How would I apply this information?'
- **Group cards together in themes.** This will help you chunk information and make connections.
- **Create a mind map with the cards.** Explain all the connections between cards.

Summary: How to use flash cards



1.

Identify knowledge

What are you creating flash cards on?

Do you have your knowledge organizer?

Use your book to look at previous misconceptions from whole class feedback.



2.

Colour coding

Use different coloured flash cards for different topics. This helps with organization NOT recall



3.

Designing

1 Question per flashcard.

Making them concise and clear.

Use a one word prompt, so that you can recall as much as you can.

No extended answer questions.



4.

Using

Write your answers down, then check. Or say your answers out loud. This really clearly shows the gaps in your knowledge.

Do not just copy & re-read.

Shuffle the cards each time you use them.

Use the Leitner system to use flash cards everyday.



5.

Feedback

How have you performed when you look back at your answers?

Is there anything you need to revisit in more detail?

Is your knowledge secure? If so, move onto applying knowledge in that area in specific extended exam questions.

Avoid answering the questions in your head: research shows that when you read a question and answer it in your head, you aren't actually testing your knowledge effectively. Say the answer out loud or write it down before checking it against the card, so you are truly testing if you can explain the answer properly







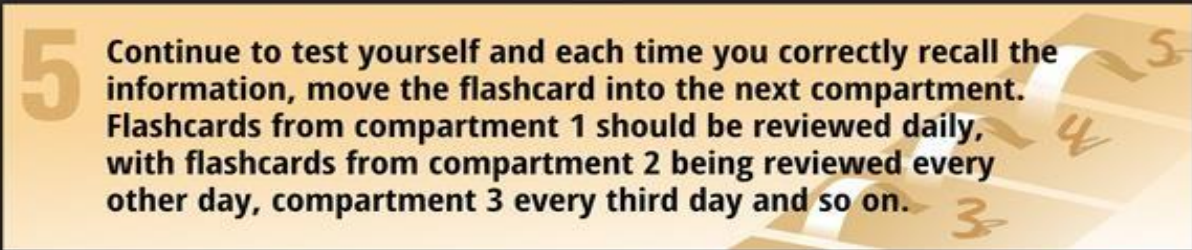

Flash Cards: The Leitner System

To use flashcards most effectively, the Leitner System is a desired strategy for spaced testing.

- Watch how to use the Leitner System here: <https://www.youtube.com/watch?v=C20EvKtdJwQ>

USING FLASHCARDS TO REVISE

by @inner_drive | www.innerdrive.co.uk

- 1** Split a box into 5 different compartments and label them 1 to 5.

- 2** Place all your flashcards in compartment 1.

- 3** Test yourself on a flashcard

- 4** If you can correctly recall the information move the flashcard into compartment 2, if not then put it back in compartment 1.

- 5** Continue to test yourself and each time you correctly recall the information, move the flashcard into the next compartment. Flashcards from compartment 1 should be reviewed daily, with flashcards from compartment 2 being reviewed every other day, compartment 3 every third day and so on.

- 6** Eventually, all your flashcards will have been transferred to compartment 5 and the information they contain stored in your long-term memory.




Retrieval Practice

Retrieval Practice is deliberately retrieving knowledge from memory, without notes, to strengthen the memory and make it easier to recall in the future...

• Evidence from research demonstrates that retrieval practice is more effective than just re-reading material that you want to remember. And the more challenging you make this retrieval, the greater the benefit – the memory becomes deeper, stronger, and easier to access in the future.

• **Examples include:**

- Knowledge quizzing and low stakes testing – use Kahoot, Bitesize or other platforms for ready-made quizzes or create your own questions for a topic.
- Completing past paper questions or practice answers.
- Answering verbal questions asked by teacher/peers/parents.
- Creating flashcards or revision materials where you can ‘test’ yourself.
- Brain dumps – choose a topic and write down all you can recall from memory, then use your notes/revision guide and, in a second colour, add what you forgot and focus on this.
- Creating and using thinking and linking grids with peers (ask your teachers to borrow a dice or use online dice).

Quizzes with parents

Choose a topic and get your parent to test you on a minimum of five questions

Date	Topic	Score	Parent signature
		/	
		/	
		/	
		/	
		/	
		/	
		/	
		/	
		/	
		/	

THE BENEFITS:

- Retrieval practice aids later retention 'every time you retrieve a memory it becomes deeper, stronger, and easier to access in the future'
- Testing identifies gaps in knowledge
- Testing causes students to learn more from the next learning episode
- Testing produces better organisation of knowledge
- Testing improves transfer of knowledge to new contexts
- Facilitates retrieval of material that wasn't tested
- Improves metacognition
- Prevents interference from previous material when learning new content
- Provides valuable feedback to teachers
- Regular testing encourages students to study more.



Brain Dumps

- Choose a topic and on a blank piece of paper, write down everything you know about it. After 8-10 minutes, use your notes, revision guides or knowledge organisers to check your knowledge. Take another colour pen and add anything you forgot. These are the areas you need to focus on in future revision.

- Date the sheet and store it away. At a later date, do the exercise again and compare the sheets. Hopefully, you remember more the second (third, fourth etc.) time and will be able to see the improvement you've made.



Summary: Brain dumps



1.

Identify knowledge

Identify the knowledge/topic area you want to cover.



2.

Write it down

Take a blank piece of paper/white board and write down everything you can remember about that topic. (with no prompts)

Give yourself a timed limit (e.g. 10 minutes)



3.

Organise information

Once complete and you cannot remember any more, use different colours to highlight/underline words in groups.

This categories/links information.



4.

Check understanding

Compare your brain dump to your K/O or book and check understanding.

Add any key information you have missed (key words) in a different colour.



5.

Store and compare

Keep your brain dump safe and revisit it.

Next time you attempt the same topic try and complete the same amount of information in a shorter period of time or add more information.

Brain dumps are a way of getting information out of your brain.

Thinking and Linking Grids

- Choose a topic and create a thinking & linking grid using your notes/revision guide. Include key terms, ideas, themes, people etc.
- Using some dice, roll two numbers for coordinates of a box on the grid. Repeat.
- Explain the connection between the two ideas in the boxes.
- Every correct connection earns a point. Keep score to see who earns the most points!

A Streetcar Named Desire Thinking and Linking Grid

	1	2	3	4	5	6
1	Cruelty	Progress	Loneliness	Sin	Madness	Belle Reve
2	Sexuality	Kindness	Steve	Appearances	Fate	Stanley
3	Mitch	Marriage	Elysian Fields	Sexual desire	Eunice	Flowers
4	Mutability	Stella	City	Beauty	Light	Illusion
5	Cruelty	Death	Opposites	Blanche	Truth	Gender
6	Decadence	Bething	Old South	Guilt	Drunkenness	Social class



Retrieval Practice

9 Ways to use retrieval practice

by @inner_drive | www.innerdrive.co.uk



Mapping

Mind maps are a visual tool that summarise whole topics, organise knowledge and help show the connections between different ideas.

- Make a mind map of the topic you are studying, from memory. **Do not look at your notes for 8-10 minutes.** Then, add anything you had not remembered in a second colour, using your notes/revision guide/knowledge organisers to see what you missed.
- Start with the topic/theme in the centre of the page and work outwards. Then develop your main idea. Each branch must relate to the branch before it. Use only key words and images. Use highlighters and coloured markers to colour code branches. Make things stand out on the page so they stand out in your mind. include images you can relate to which will help you remember key information.



Summary: How to create a mind map



1.

Identify knowledge

Select a topic you wish to revise. Have your class notes/knowledge organisers ready.

2.

Identify sub topics

Place the main topic in the centre of your page and identify sub topics that will branch off.

3.

Branch off

Branch of your sub topics with further detail.
Try not to fill the page with too much writing.

4.

Use images & colour

Use images and colour to help topics stick into your memory.

5.

Put it somewhere visible

Place completed mind maps in places where you can see them frequently.

Avoid using too much information: mind maps are designed to summarise key information and connect areas of a topic/subject. If you overcrowd the page, you lose the point of the mind map and will find it harder to visualise the information when trying to recall it



CHURCH
STRETTON
SCHOOL

6 Mind Mapping Mistakes

by @inner_drive | www.innerdrive.co.uk



Mistake #1 Using only words

Students should combine words and pictures. Giving two representations of the information helps to cement it into long term memory.



Mistake #2 Using too many words

Rather than copying everything down, students should prioritise information, and only include the stuff they really need to know.



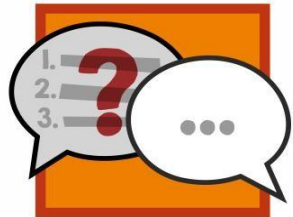
Mistake #3 Wasting time making it too pretty

Students should get onto testing themselves and actively using their mind map, instead of spending hours perfecting it.



Mistake #4 Not using elaborative interrogation

Students should ask themselves questions like 'why is this true?' about mind map content, to get them thinking deeply about the information. Re-reading just won't do.



Mistake #5 Not utilising retrieval practice

Don't forget to test yourself! Try to re-create the mind map from memory, get a friend to test you, or teach the mind map information to a friend.



Mistake #6 Not transferring mind map knowledge

Students should use the mind map to answer quizzes and past paper questions, and be sure to transfer mind map knowledge so that they truly understand and can apply it.



Cornell Notes

Cornell Notes is a note taking method that is scientifically proven to have excellent results for information retention.

- This is the best way for taking and reviewing notes.
- the **notes** section should include the main ideas, key words, examples, diagrams, formulas etc from a topic. On the left, in the **recall cues**, create questions from the notes. After a few days, write a summary of the main ideas in the **summary** section. At any future point, cover the notes and summary and use the recall cues to test yourself.

CUES	NAME, DATE, TOPIC, CLASS
WRITTEN SOON AFTER CLASS	NOTES
	TAKEN DURING CLASS <ul style="list-style-type: none">• MAIN POINTS• BULLET POINTS• DIAGRAMS / CHARTS• ABBREVIATE• PARAPHRASE• OUTLINES• LEAVE SPACE BETWEEN TOPICS
ANTICIPATED EXAM QUESTIONS	
MAIN IDEAS OR PEOPLE	
VOCABULARY WORDS	
USED FOR REVIEW & STUDY	CORNELL NOTE - TAKING METHOD
	SUMMARY
	WRITTEN AFTER CLASS. BRIEF SUMMARY HIGHLIGHTING THE MAIN POINTS IN THE NOTES ON THIS PAGE.
	USED TO FIND INFO LATER.

- Watch how to use Cornell Notes here: <https://www.youtube.com/watch?v=JrJt4QbFIP0> and download template from **Preparation: the most effective revision strategies** page.

SUBJECT/TOPIC:

DATE:

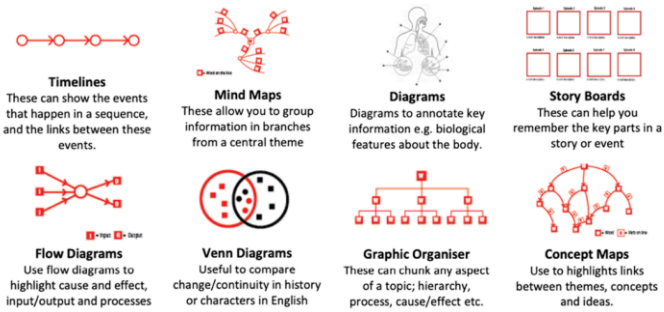
CUES:

NOTES:

SUMMARY:

Memory Tricks & Tips!

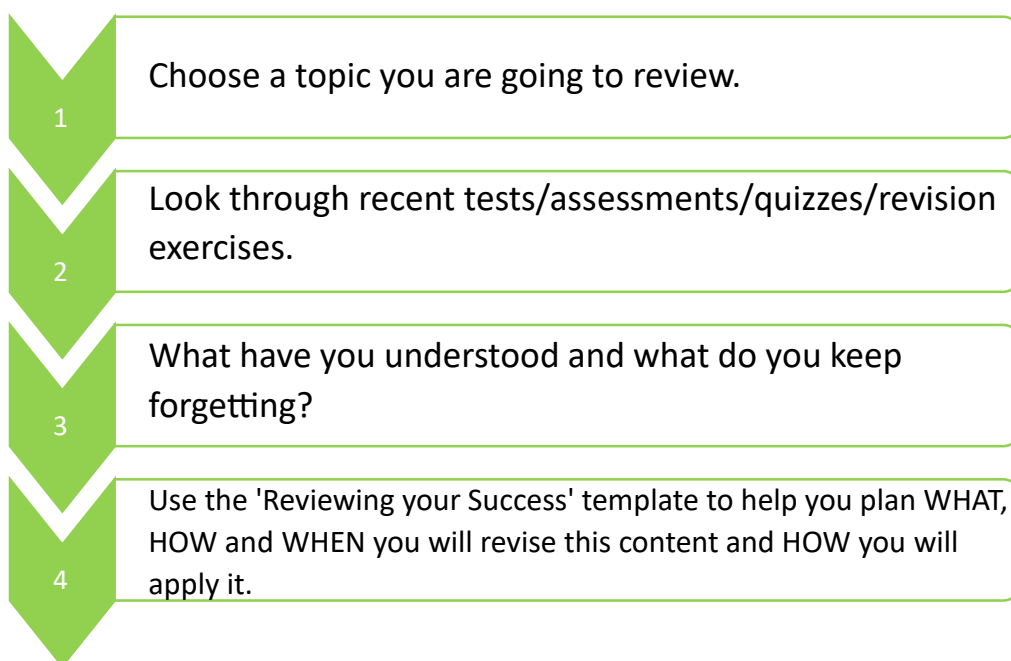
The key to making information stick in your mind is making it memorable. We can associate cues with knowledge to make it easier to retrieve from memory. Examples of cues could be:

Cue	Explanation	Example
Mnemonic	A mnemonic helps you remember factual information in the right order. Simply take the letters from the words you wish to remember and use them to make a memorable sentence.	<ul style="list-style-type: none"> • Never eat shredded wheat (Compass: North, South, East, West). • Pop Stars Sing Naff Pop Ballads (Stages in the Life of a Star: Protostar, Supergiant, Supernova, Neutron, Pulsar, Black Hole). • Never Eat Cake Eat Salad Sandwiches And Remain Young (how to remember how to spell the word NECESSARY). • Some old horses can always hear their owners' approach (SOH CAH TOA in Maths).
Rhymes	Rhymes can be a really good way of helping you remember information. You can use examples from your teachers or make your own.	<ul style="list-style-type: none"> • Divorced, beheaded, died, divorced, beheaded, survived (Fate of Henry VIII's six wives). • Pi r squared sounds like area to me, need circumference just use pi D (The Circle song used in Maths).
Dual Coding (using images & colour)	It can be very helpful when making notes//flash cards/mapping to link key facts or concepts to diagrams or images. This can act as a memory trigger to help you retrieve information.	 <p>Timelines These can show the events that happen in a sequence, and the links between these events.</p> <p>Mind Maps These allow you to group information in branches from a central theme</p> <p>Diagrams Diagrams to annotate key information e.g. biological features about the body.</p> <p>Story Boards These can help you remember the key parts in a story or event</p> <p>Flow Diagrams Use flow diagrams to highlight cause and effect, input/output and processes</p> <p>Venn Diagrams Useful to compare change/continuity in history or characters in English</p> <p>Graphic Organiser These can chunk any aspect of a topic; hierarchy, process, cause/effect etc.</p> <p>Concept Maps Use to highlights links between themes, concepts and ideas.</p>

Revision Review

Reflecting on what has been learnt (and how well) helps to identify weaker areas for development which need to be revised more.

- Look over the work you have been doing as part of your revision (flash cards, knowledge organisers, mind maps, practice answers, quiz results etc). Use the flow diagram to identify which aspects you feel you have understood and which ones you need to revise further. Then use the 'Road to Success' document to help you plan WHAT and HOW you are going to revise.



REVIEWING YOUR REVISION: Use this grid to help you monitor your revision and plan your next steps.

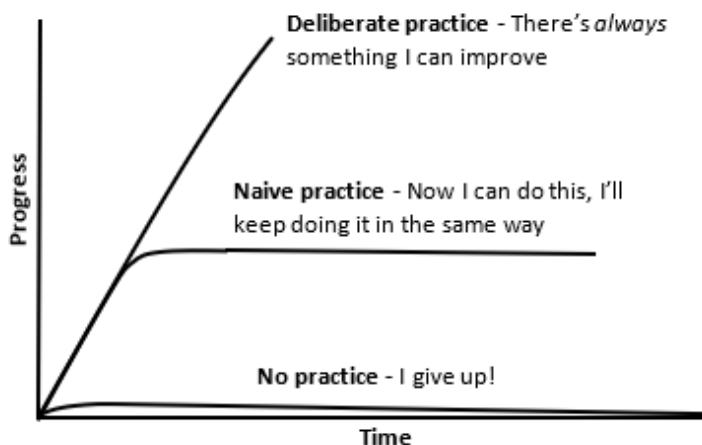
Subject/Topic:

<u>WHAT?</u> Target areas What areas of the topic are you struggling with?	<u>HOW?</u> Revision Strategies What are you going to use to improve your understanding?	<u>WHEN?</u> How and when will you next test your understanding?

Deliberate Practice

Practice is essential. You can revise all you like but without practice, it is wasted.

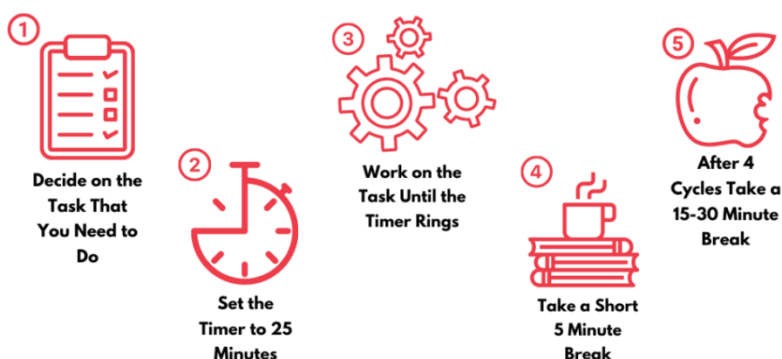
- **Deliberate practice** is always performed with a clear goal in mind, i.e., it consists of activities purposely designed to improve performance.
- Crucial to the success of this process is continual feedback, which is something that coaches provide *elite athletes or musicians*.
- Attend **Passport for Success** on Wednesdays and Thursdays after school to complete deliberate practice, receive feedback from the experts (your teachers) and earn rewards!



Deliberate Practice

- Start by spending time reviewing a topic/unit before quizzing/testing yourself with no notes and from your memory (this is vital for revision).
- Once you have finished, check your answers. This will support you in showing where your 'knowledge gaps' are and where focus needs to be in your future revision.
- Revision shouldn't keep you in your comfort zone, you need to be thinking hard and identifying your own areas for development.
- Avoid simply revising topics you enjoy or are good at (naïve practice).
- A technique to support deliberate practice is the **Pomodoro Technique**.

THE **POMODORO** TECHNIQUE



Using a Revision Timetable

Spaced practice involves spreading out your studying methods over time to get the most long-term retention.

Why you should create and use a revision timetable.

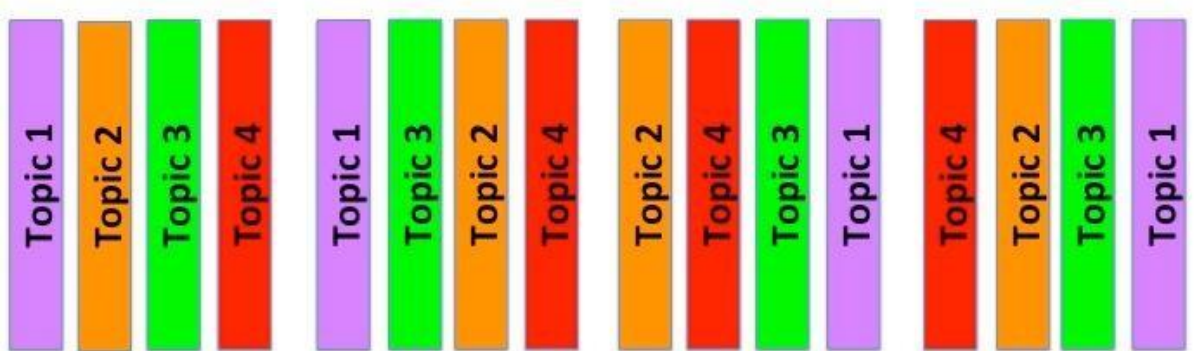
Imagine you decided to run a half-marathon in 6 months. What would you do to prepare for the race? Option A is to watch videos of past marathons for the first 5 and a half months and then run 15 hours a day during the last two weeks. Option B is to work out only legs for the first three months and then work out only arms for the final three months. Option C is to have a training schedule where you shift between running, working out arms and legs and you spread out your time over the entire preparation period.

It's very logical to assume that Option C is the best one. It is the same idea with our learning.

Blocked revision (cramming) looks like this and doesn't really need to be planned:



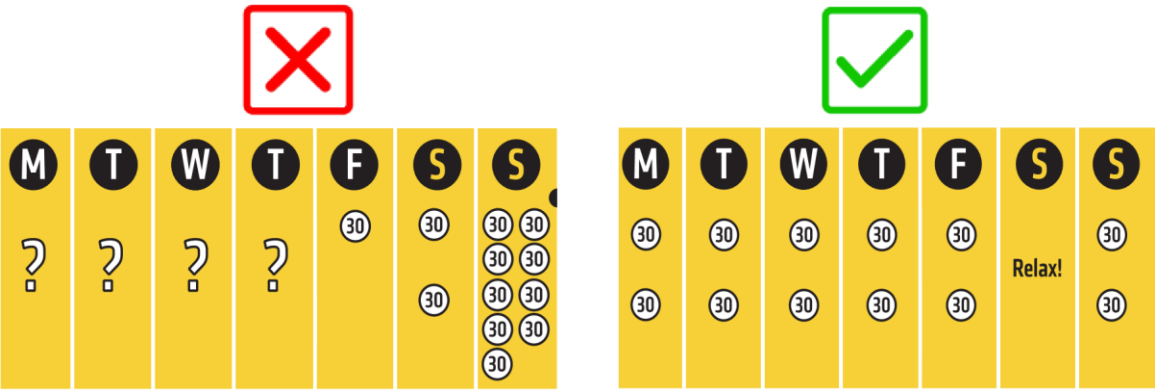
What we should be using is spaced and interleaved revision, which looks more like this:



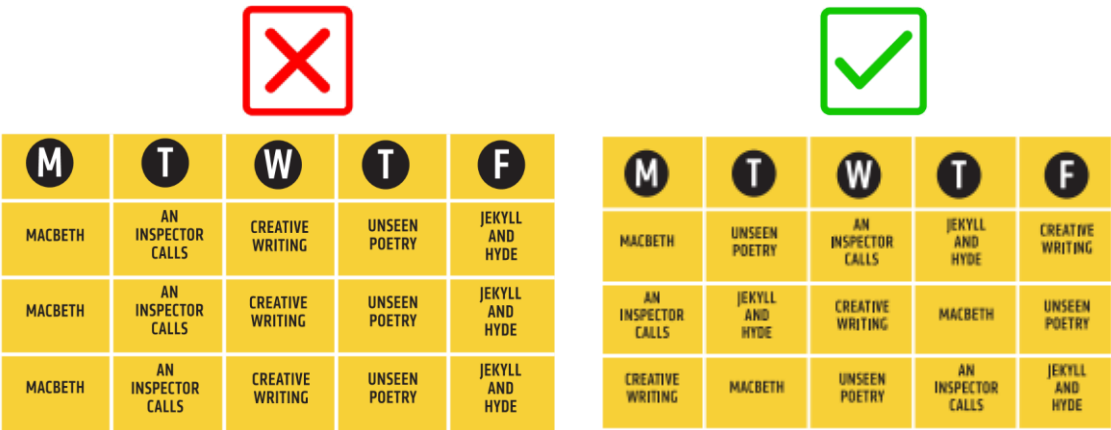
Using a Revision Timetable

Why?

Spaced Practice is one of those concepts that sounds obvious but that in practice is sometimes ignored. Research has shown that you gain more benefit from studying a topic if you break that study over a period of time rather than cramming it all into the same amount of time in one go. So, when you're planning your revision, you should aim to allow for several shorter sessions on a particular topic, spread over several days or weeks (the longer the better), rather than one long session where you 'blitz' that topic.



Interleaving goes hand in hand with the idea of spaced practice. Interleaving strengthens memory associations compared to blocking, which temporarily holds information in your short-term memory. It simply means switching topics or subjects you are studying so that you don't spend too long on any one thing in a single sitting. Research suggests that this kind of interleaving approach is beneficial when we study and leads to better and deeper learning than trying to take in topics in big chunks. **Having some sort of revision timetable will allow you to reap the benefits of this approach to studying.**



Revision Timetable

Create your own revision timetable. You could use colour to identify individual subjects. Remember to plan for sensible breaks, drink lots of water and have healthy snacks to hand.

	Mon	Tues	Wed	Thurs	Fri	Sat	Sun	Subject	Sessions per week
9am									
10am									
11am									
12pm									
1pm									
2pm									
3pm									
4pm									
5pm									
6pm									
7pm									
8pm									

Revision Timetable

Create your own revision timetable. You could use colour to identify individual subjects. Remember to plan for sensible breaks, drink lots of water and have healthy snacks to hand.

	Mon	Tues	Wed	Thurs	Fri	Sat	Sun	Subject	Sessions per week
9am									
10am									
11am									
12pm									
1pm									
2pm									
3pm									
4pm									
5pm									
6pm									
7pm									
8pm									

Revision Timetable

Create your own revision timetable. You could use colour to identify individual subjects. Remember to plan for sensible breaks, drink lots of water and have healthy snacks to hand.

	Mon	Tues	Wed	Thurs	Fri	Sat	Sun	Subject	Sessions per week
9am									
10am									
11am									
12pm									
1pm									
2pm									
3pm									
4pm									
5pm									
6pm									
7pm									
8pm									

The Five Step Study Plan

- 1. Make a list** - What do you need to know?



- 2. Timetable a spaced schedule** - Study each topic little but often, and leave yourself enough time.



- 3. Use effective study strategies** - Test yourself and keep the re-reading and highlighting to a minimum.



- 4. Identify the gaps in your knowledge**
What do you need to study more?
What can you move on from?



- 5. Close the gaps** - Repeat steps 3 & 4 as many times as you need until you are comfortable with everything.



Ineffective: Don't CHEAT your revision

There are some strategies that have a limited or no real benefit on learning or memory, which you need to avoid.

These include:

- Simply writing out notes or copying from a textbook/exercise book.
- Cramming revision to the 'final minute' overloads your working memory so you can't learn at all. It can also cause stress/anxiety before exams.
- Re-reading and doing nothing with the information. Trying to focus on 'too much information' on a single page and cramming revision.
- Highlighting information for the sake of it.
- Not enough silent work or attention to a given task. Attempting to revise while multitasking and doing other things.
- Comfort zone revision of easy material that pupils have already mastered because it makes you 'feel good'.

Don't CHEAT Your Revision
by @inner_drive | www.innerdrive.co.uk

C **CONFUSED**
If you don't know what you should be revising then don't be shy, ask for help.

H **HUNGRY**
Teenagers who eat breakfast have better focus and concentration than those who don't.

E **EMOTIONAL**
Find out about and use stress management techniques.

A **ABSENT MINDED**
Students with phones on their desk are up to 20% less effective when revising.

T **TIRED**
GCSE and A-Level students need around 9-10 hours sleep a night whilst revising to take all that information in.

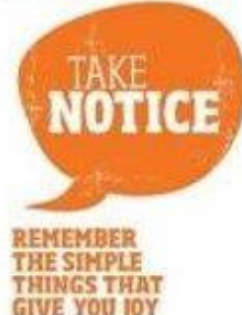


Wellbeing: Staying happy & healthy

We want to help all students reach their potential and this includes helping you to take care of your mental health and wellbeing. Revising, taking exams, and getting your results can be a stressful time.

Here are some **tips** about looking after yourself during and helping you manage the anxiety you may be feeling:

- **Get the balance right.** You will feel less stressed if you prepare for your exams by revising but don't overdo it. Give yourself time off.
- **Exercise.** Break up your day of revision with exercise. Even a short walk will clear your head.
- **Food and drink.** Don't go into a morning exam without breakfast. Try to follow a healthy diet with some fruit and vegetables, and drink plenty of water.
- **Get enough sleep.** Keep a regular sleep-pattern and avoid all night revision sessions.
- **Limit screen time.** Try to restrict checking devices all the time. Constantly checking Snapchat or Instagram can be stressful if the only topic is exams. And avoid screens before bedtime.
- **Calming nerves.** Mindfulness, meditation, or yoga may help you to calm your nerves. You can download apps for all of them, to see what works best for you.
- **Be organised.** Get everything ready the night before your exam. Set an alarm so you give yourself plenty of time to get to your exam hall on time!
- **Don't rush.** When you open the exam paper, take a few deep breaths to calm yourself, so you read the instructions and questions carefully.
- **Don't give up.** If you come out of an exam thinking it's gone badly, try not to dwell on it (and don't go into any chat rooms). Focus on the next one.



9 Ways to Beat Revision Stress

by @inner_drive | www.innerdrive.co.uk



Do the actual work – revise!



When really stressed, talk to someone about it



Get some fresh air each day



Stick to regular mealtimes



Do something to switch off an hour before bed



Don't dwell on worst case scenarios



A good sleep the night before is better than last minute cramming



Once you've done the exam, move on to the next one



Don't aim for perfection – it's a myth and doesn't exist

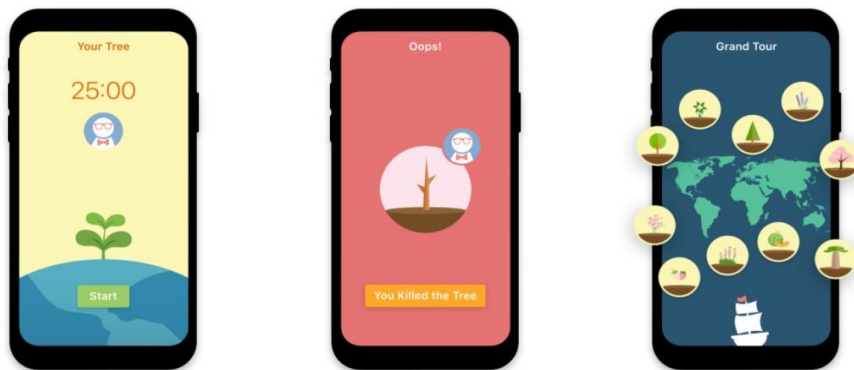


CHURCH
STRETTON
SCHOOL

Useful Apps

- You can also use your mobile phone during revision in a positive way. Here are some apps which can help you to increase productivity and stay focused during revision periods:

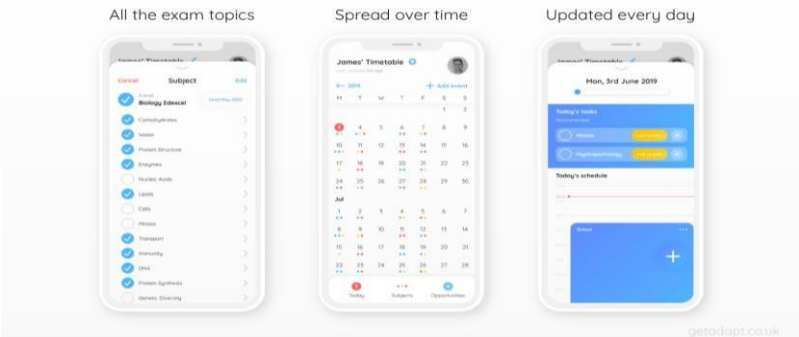
Flora is a new way to stay off your phone, clear to-do lists, and build positive, life-changing habits. Whenever you want to make progress toward your goals, **grow trees** in Flora!



1. Select a focus duration, and then press **Start** to grow a tree.
2. If you leave the app for social media or games, the tree will die.
3. Discover new trees by completing focus sessions and tasks.

Adapt is an intelligent study planner that keeps you organised wherever you are.

A **dynamic** revision timetable.



Focus Keeper helps you keep your productivity high avoiding burnout using the timer. Work with time. Not against it!

