



Revision Revolution



Trinity High School & Sixth Form Centre
Part of Bordesley Multi Academy Trust

The Revision Revolution

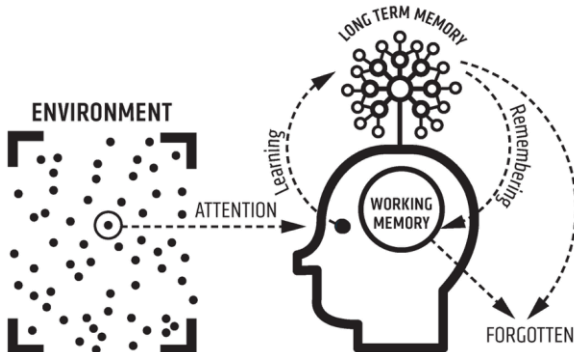
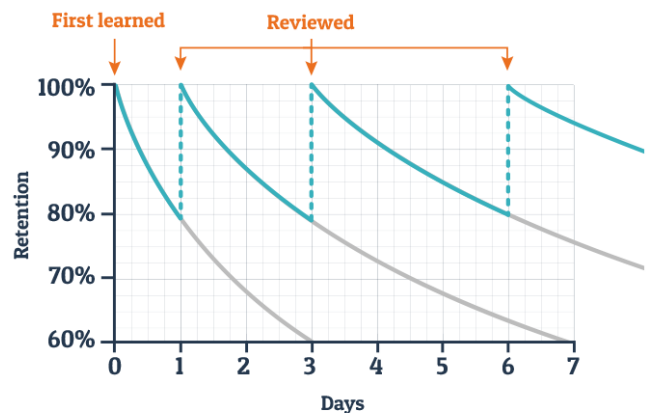
The Science of Learning

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 quickly.
- Our working memory is limited and so overloading or cramming for revision doesn't work.
- Information, if not revisited, is 'lost' from our memory.
- Consistent practice and revisiting previous material strengthens memory and boosts learning.
- **Essentially, with memory, it's use it or lose it!**

Typical Forgetting Curve for Newly Learned Information



Why is revision so important?

- Strengthens long term memory
- Makes it easier to retrieve information
- Reduces stress and anxiety around exams
- Builds confidence

It's not just how many hours of revision you do, it's also what you do in those hours that counts..

- 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*).

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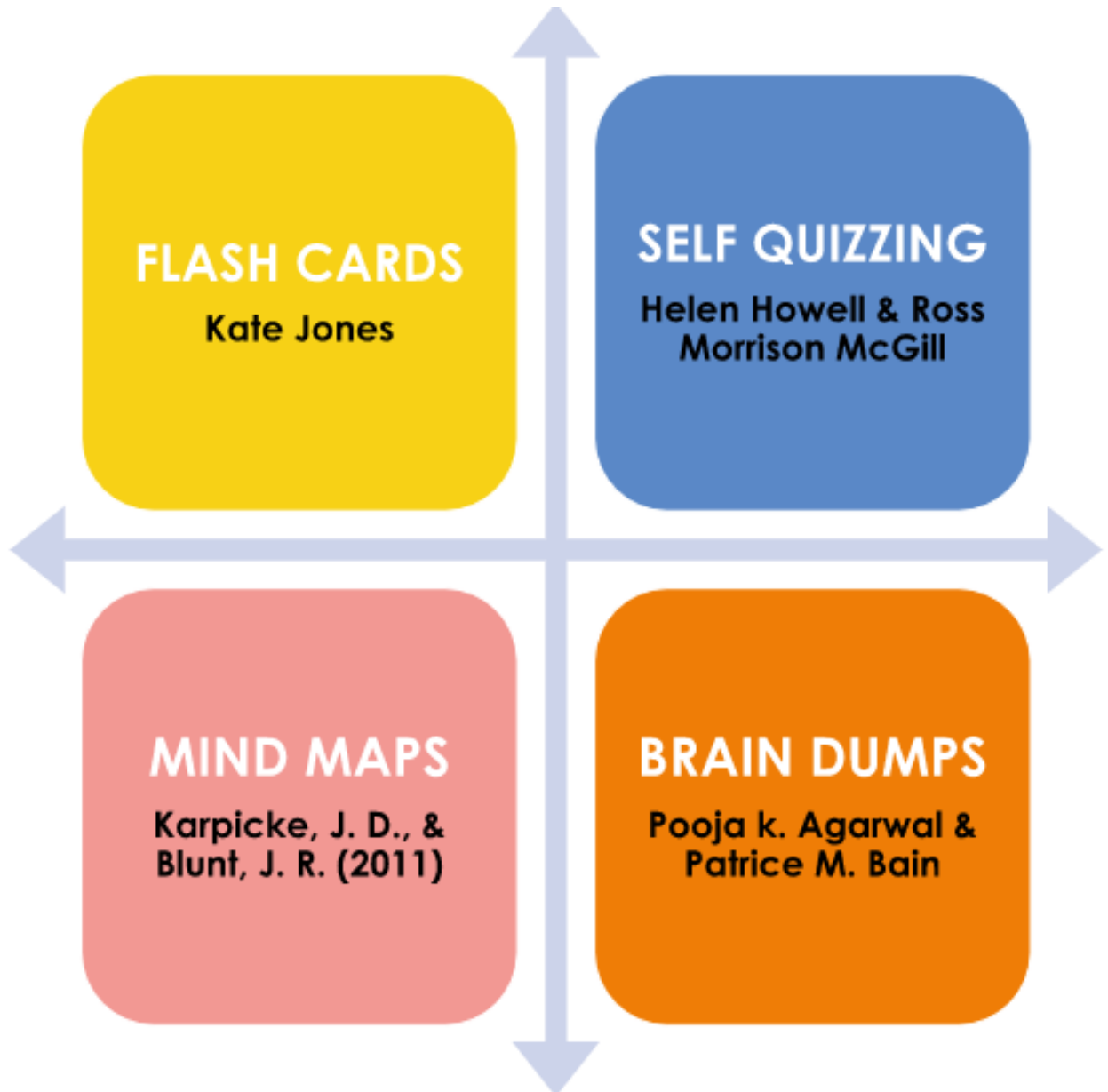
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The CORE FOUR

There are lots of revision strategies and tips in this booklet, and when it comes to revising, it's not unusual to feel overwhelmed or uneasy about where to start.

All the strategies in this booklet are evidence-informed and highly recommended but you may have your preferences, which is why we have included various options for you to trial!

However, if you're not sure where to begin, a safe bet is always using the CORE FOUR.



Flash Cards

A simple and popular technique for learners to use – low effort but high impact! (Jones, 2020)

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

Making flashcards

- Have a question on the front and the answer on the back.
- Use few words and split complex material over lots of cards.
- Make flashcards about the tricky parts.
- Use drawings to illustrate answers.
- Flashcards don't have to be flashy!

TIP: MAKING flashcards and TESTING them are not both equally useful. The benefit of flashcards comes when you TEST with them – that's the retrieval practice – not when you make them.

Using flashcards

- **Commit your answer.** Write your answers down or say aloud to identify any gaps in knowledge and commit to long-term memory.
- **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.
- **Pair testing.** Ask a friend or family member to test you. Have your quiz partner loop back to any cards you got wrong until you can reliably get the answer right.
- **Revisit.** Go back to any cards you got wrong until you can get them right consistently. The **Leitner system** can help with this (see next page).



Flash Cards: The Leitner System

This spaced repetition-inspired study method is great for building long term memorisation. It's also easy to use! (Stratemeyer, 2023)

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.



Place all your flashcards in compartment 1.

3 Test yourself on a flashcard



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.



Self-Quizzing

Self-quizzing helps you to think about your learning – a crucial step in becoming a self-regulated learner. (Howell & Morrison McGill, 2022)

Summary: Self Quizzing



1.

Identify knowledge

Identify knowledge/content you wish to cover.

2.

Review and create

Spend around 5-10 minutes reviewing content (knowledge organisers/class notes/text book)

Create x10 questions on the content (If your teacher has not provided you with questions)

3.

Cover and answer

Cover up your knowledge and answer the questions from memory.

Take your time and where possible answer in full sentences.

4.

Self mark & reflect

Go back to the content and self mark your answers in green pen.

5.

Next time

Revisit the areas where there were gaps in knowledge, and include these same questions next time.

Ensure that you complete all subjects and all topics – not just the subjects you enjoy the most of find easiest.

Practice makes perfect!

Knowledge Organisers

A knowledge organiser can be a powerful tool for self-quizzing and retrieval. (Howell, 2022)

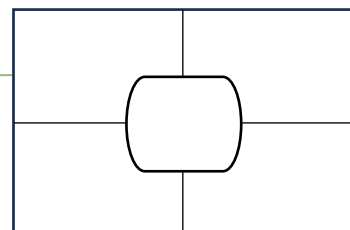
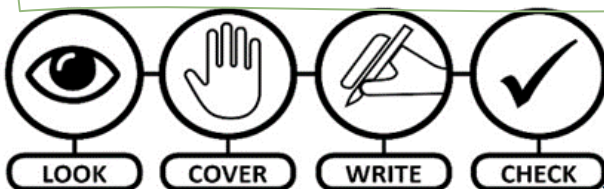
You can find knowledge organisers for your subjects on the **Success – Subject Resources** page of the Trinity High website.

Using knowledge organisers

1. Read the section you are revising
2. Cover up the section
3. Write down what you can remember (could be as brain dump or mind map)
4. Check your notes and in a **different colour** correct or add anything you missed.

Making knowledge organisers

1. Use a ready-made template (check with your teachers) or divide a blank page into spaces.
2. Fill each space with knowledge from your memory.
3. Check your notes and in a **different colour** correct or add anything you missed.



Mapping

Mapping can make the links between new information and prior knowledge explicit. (Kirschner, 2021)

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

Retrieval mapping – to strengthen memory and identify gaps

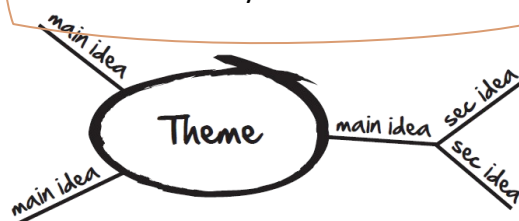
1. Create mind maps from own memory (i.e. no information in front of you)
2. Check notes/revision guide/knowledge organisers
3. Add anything you missed in **second colour** (visually you can see what you can recall yourself and any knowledge gaps).

Concept mapping – to make connections and organise knowledge

1. Create concept map with information in front of you (i.e. not just from memory)
2. Make connections across topics, link key ideas, highlight contrasting ideas etc. Can be useful when planning a longer written response (e.g. essay question).
3. Use colours, highlighters, annotations to connect knowledge.

Making maps

- Start with the topic/theme in the centre of the page and work outwards. Each branch must relate to the branch before it. Use 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.



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.



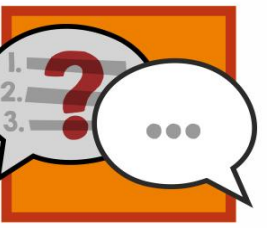
Mistake #3 Wasting time making it too pretty

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.



Brain Dumps

Brain dumps – a small strategy with a big impact! (Agarwal, 2019)

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.

Blank Page Retrieval

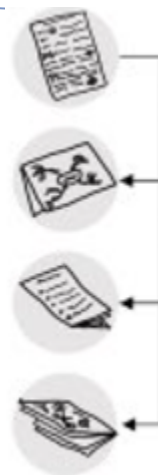
1. **Put your books away**, then scribble everything you can remember about a topic onto a blank piece of paper.
2. **After you've squeezed as much as you can from memory**, grab your books: add in missing details and correct mistakes, with a new colour!
3. **Rinse and repeat**: keep practicing! Aim to remember more details each time you come back to this topic – until you have no missing details or mistakes!
4. **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.

Power Planning

1. Take a blank page of A4 paper and fold it to make 8 boxes.
2. Write an exam question in each box – try to focus similar question types on same page.
3. Power plan by spending 2 minutes planning your answer to each question. Bullet point how you would answer the question in each box.
4. Next steps – RAG-rate confidence with each plan. Revise topics you are less confident with. Pick a question and write your answer in full.

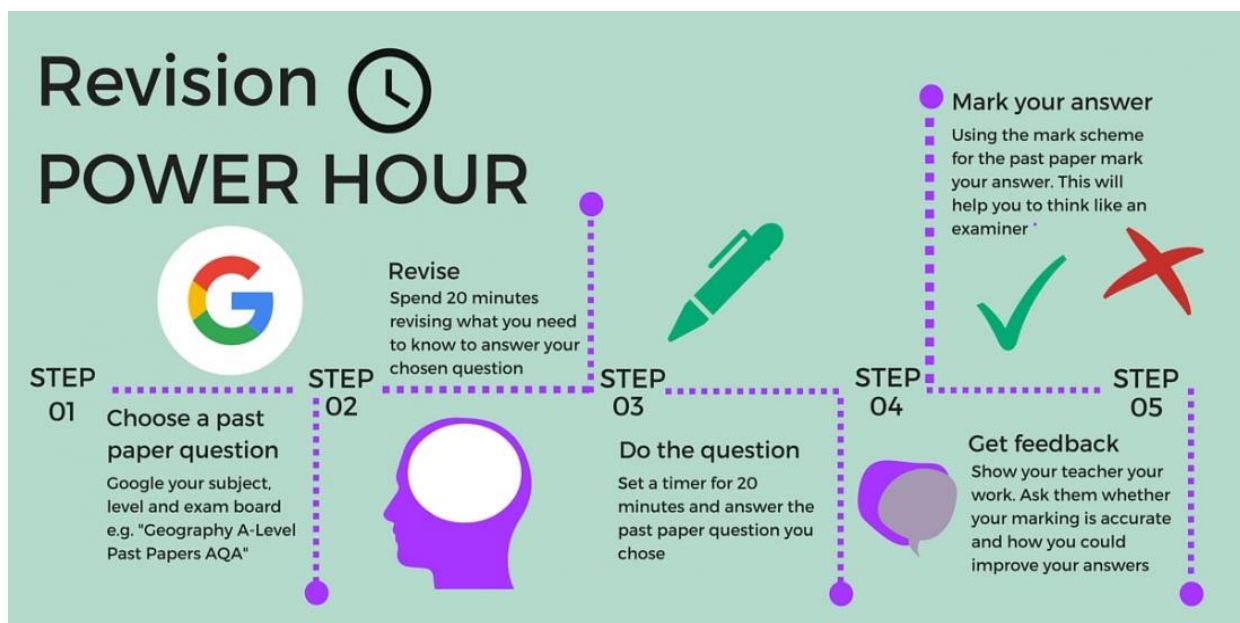
Folding Frenzy

1. Write a page of notes on one side of A4.
2. Create mind map by summarising your notes – include only more important information.
3. Write a list of the 5-6 key pieces of knowledge or key terms for the topic.
4. Summarise the topic using only symbols, diagrams, and images.



Practice Questions

Practice does not always make perfect, but it does make permanent. (Lemov, 2012)



Practice questions are useful for a range of reasons:

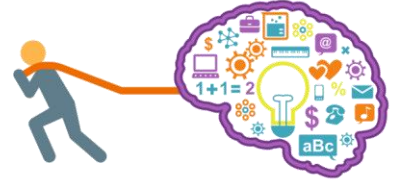
- A great way to do **retrieval practice** if you're attempting them from memory first, and then you can address any knowledge gaps.
- Practice questions also give you valuable practice at **using your knowledge in the way you'll be tested**.
- And working through full past exam papers under timed conditions is important preparation **in the exact conditions you'll sit your exams**.


Retrieval Practice

Retrieval practice, like exercise, must be consistent, regular and the level of challenge should be appropriate with desirable difficulties. (Jones, 2019)


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

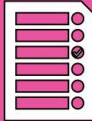


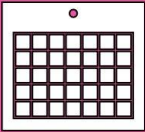










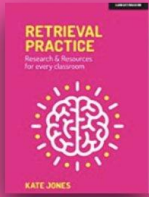
Retrieval practice focuses on pulling information out of the memory, rather than pushing information in. It can include:





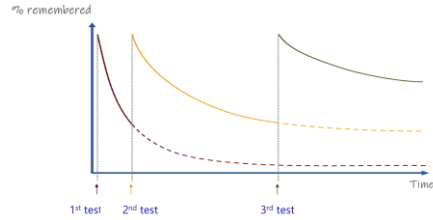
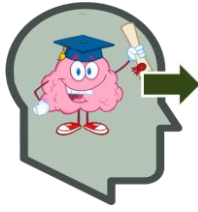
Retrieval Practice



<p>Multiple Choice Questions</p> 	<p>Mini White Boards</p> 	<p>Self - quizzing</p> 
<p>Retrieval Grids</p> 	<p>Free Recall</p> 	<p>Online Quizzes</p> 
<p>Verbal Recall</p> 	<p>Knowledge Organisers</p> 	<p>Entrance/Exit Tickets</p> 
<p>Past Exam Questions</p> 	<p>Flashcards</p> 	<p>Revision Clocks</p> 
<p>Spaced Practice</p> 	<p>Elaboration</p> 	

Spaced Practice

The magic happens when we combine retrieval practice AND spaced practice!

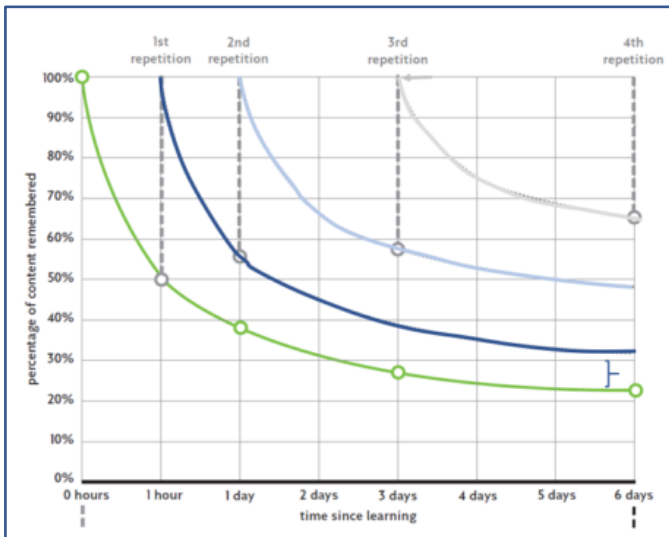


Retrieval practice



Spacing it out over time

Spaced practice = leaving a time gap between each round of practice. This will improve memory retention (you will remember more, for longer).



Time to the test	Revision Gap
1 Week	1-2 days
1 Month	1 week
3 Months	2 weeks
6 Months	3 weeks
1 Year	1 month

The “Goldilocks Effect”.

- Each time you revisit a topic, **test yourself on it** – *but don't check your notes to refresh your memory before you do the testing* – that undermines the whole point of the spaced retrieval practice. It SHOULD feel a little challenging (a brain workout)!
- Your spaced retrieval practice doesn't want to feel too easy, but it doesn't want to feel impossible either. You want to aim for somewhere in the middle, where it's challenging but not impossible.

Not enough challenge

Too much challenge



Interleaving

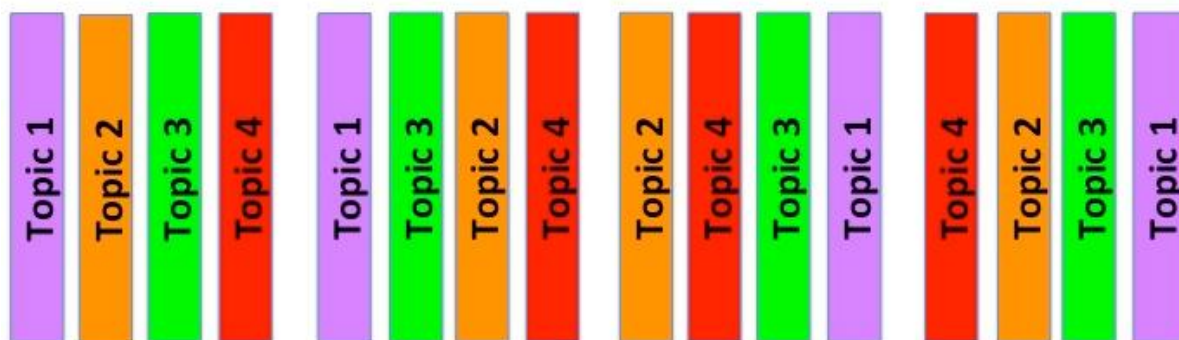
Interleaving means switching back and forth between two (or more) related kinds of problem or skill practice. You do one or two problems of one kind before switching over to the other, then back again.

The opposite of interleaving is “blocking”, practising lots of one kind of problem in a row, before moving on to practise a different kind of problem.

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:



Interleaving works best when mixing up 2-3 related and potentially confused problems or skills. So:

<input checked="" type="checkbox"/> Do interleave percentages and fractions	<input type="checkbox"/> Don't interleave percentages and plotting graphs
<input checked="" type="checkbox"/> Do interleave past and future tense verb practice	<input type="checkbox"/> Don't interleave practising past tense verbs with adjectival agreement

BUT don't use interleaving yet, if... you've yet to solve a problem successfully WITHOUT interleaving. Start with blocking if you're struggling to do the problem/skill at all.

Using a Revision Timetable

Practice that's spaced out, interleaved with other learning, and varied produces better mastery, longer retention, and more versatility. But these benefits come at a price: when practice is spaced, interleaved, and varied, it requires more effort. (Brown, 2014)

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. A **well-planned timetable** reduces the pressure that comes from last-minute cramming and trying to absorb large amounts of information at once.



M	T	W	T	F	S	S
30	30	30	30	30		30
30	30	30	30	30	Relax!	30

M	T	W	T	F
MACBETH	UNSEEN POETRY	AN INSPECTOR CALLS	JEKYLL AND HYDE	CREATIVE WRITING
AN INSPECTOR CALLS	JEKYLL AND HYDE	CREATIVE WRITING	MACBETH	UNSEEN POETRY
CREATIVE WRITING	MACBETH	UNSEEN POETRY	AN INSPECTOR CALLS	JEKYLL AND HYDE



M	T	W	T	F	S	S
?	?	?	?	30	30	30 30
					30	30 30
						30 30
						30

M	T	W	T	F
MACBETH	AN INSPECTOR CALLS	CREATIVE WRITING	UNSEEN POETRY	JEKYLL AND HYDE
MACBETH	AN INSPECTOR CALLS	CREATIVE WRITING	UNSEEN POETRY	JEKYLL AND HYDE
MACBETH	AN INSPECTOR CALLS	CREATIVE WRITING	UNSEEN POETRY	JEKYLL AND HYDE

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									

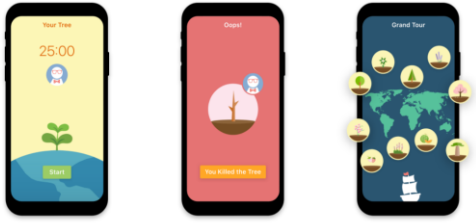



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6pm									
7pm									
8pm									

Study Habits for Success

1. Identify your **study goals** at the start – what do you want to achieve from this study session?
2. Use **active learning strategies** (the Core Four: brain dumps, flash cards, mind maps, self-quizzing). Anything that requires you to retrieve from the long-term memory.
3. Break down your study goals into **smaller, achievable tasks** to make it seem more manageable and giving a sense of accomplishment each time a task is completed.
4. **Short bursts of study** are more effective – focus for 25 minutes, have a 5-minute break and then continue (Pomodoro Technique).
5. Find a **quiet space** to study, without distractions. Ideally, not somewhere you associate with relaxing (like in bed). Put your phone away or use a productivity app (Flora).
6. Plan your revision using a timetable – use **spaced practice** (spread your studying out over time), avoid last-minute cramming.
7. Your revision timetable should balance study time with designated breaks and time for rest and relaxation. Identify **rewards** you are going to enjoy once you've hit agreed study milestones!
8. Get a full night's **sleep** – sleep helps your brain to process new information and move it to your long-term memory.
9. Try to follow a **healthy diet and drink** plenty of water – both will help you focus!
10. You won't feel motivated every day but don't give up. Aim for **1% better every day**.

<p>Flora helps you to stay off your phone and build positive, life-changing habits. When you want to make progress towards your goals, grow trees in Flora!</p>  <p>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.</p>	<p>Study Bunny helps users stay focused and productive while studying. It also includes a to-do list, flashcards, and a customizable study tracker to help with time management and organisation.</p> 
<p>Adapt is an intelligent study planner that keeps you organised wherever you are. It can help you create your revision timetable.</p> <p>A dynamic revision timetable.</p> 	<p>Focus Keeper helps keep you on track and your productivity high. Work with time, not against it!</p> 

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.
- **Ask for help.** If you think you need more support with managing your mental wellbeing please visit Happiness at HEART to see how we can help.
<https://www.trinity.worcs.sch.uk/pastoral/happiness-at-heart/>
- **Work hard, play hard.** Although year 11 is a year where commitment, hard-work and dedication is required, you will also reap the rewards. You can look forward to the end of Year 11 celebrations, including your prom!



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