LATHOM HIGH SCHOOL

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Headteacher: Mrs J M Galbraith

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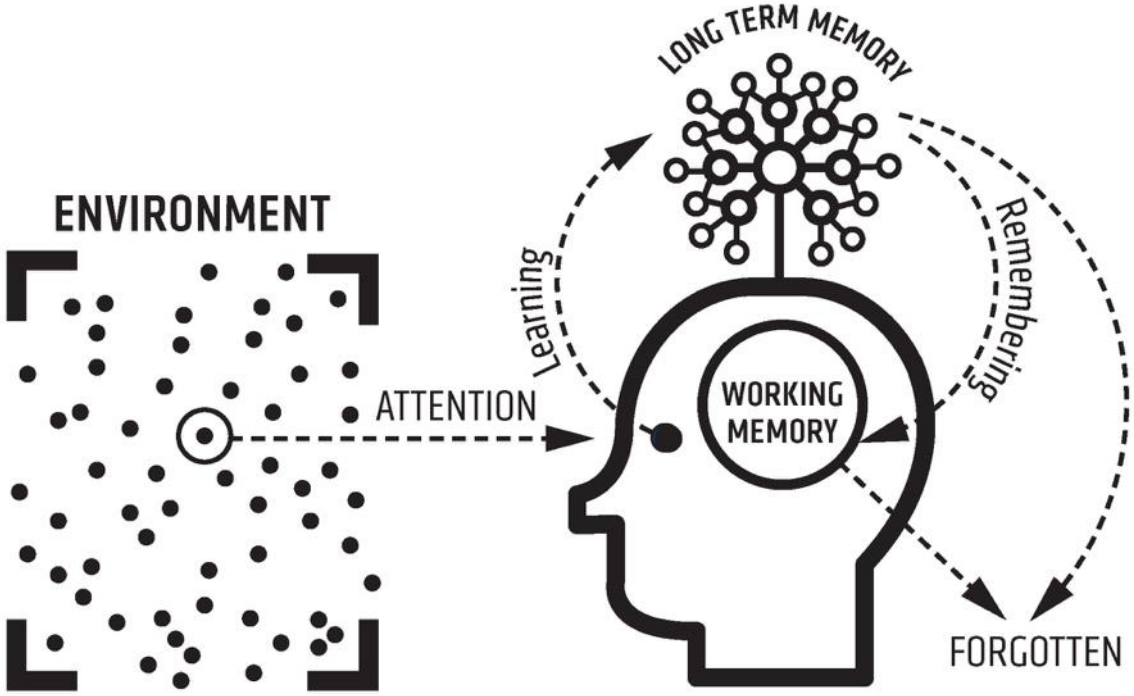
Preparing for GCSE Success

MEMORY – THE SCIENCE OF LEARNING

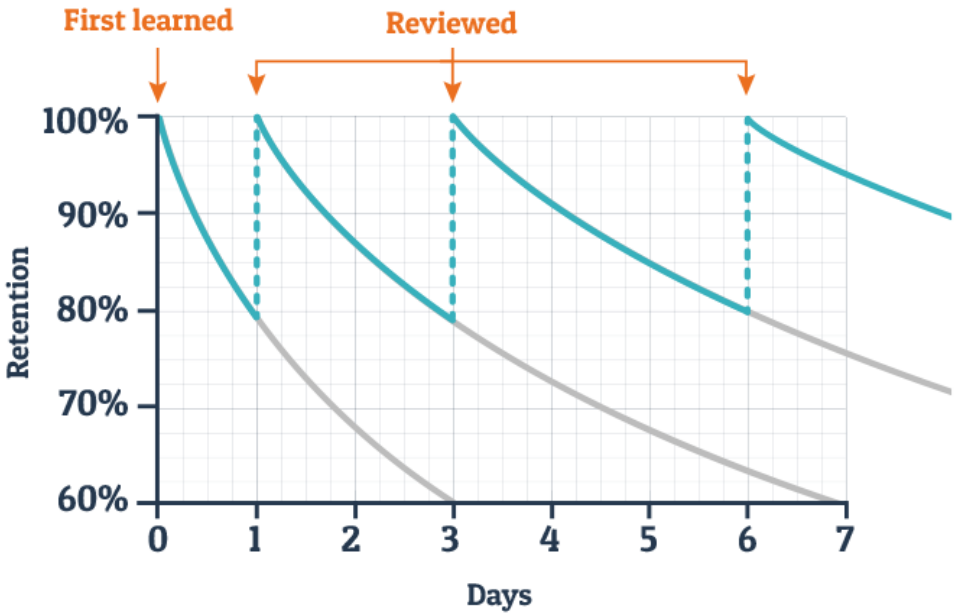
In recent years, there has been lots of research around the science of learning and how we learn and retain information.



1. We have a certain amount of attention to pay and this can be limited and can dramatically vary depending on the individual or the environment. In the diagram above, '**attention**' means we acknowledge new information and this is then transferred into our working memory.
2. Our **working memory** is where you do your thinking and where you take in new information. It is finite and we can only absorb a limited amount of information at a given time otherwise it gets crowded (research suggests we can hold 5 things in our working memory at one time). This may be up to 30 seconds. *As an example, if you write down a 'long number' and try and remember it every 30 seconds, you will be surprised how difficult this is to do!*
3. Information is processed into our **long-term memory** through '**learning**'. This long-term memory is effectively unlimited, and we can retrieve information from here back into our working memory as needed in a given moment. When we remember something, it comes from here. *As an example, this might be your phone number or address. We don't walk around thinking about those two things every second of the day but it is in our long-term memory ready to be used and retrieved when needed.* However, if we don't use the information it fades (is forgotten). **Learning is therefore a change in your long-term memory.** Whatever you think about, that's what you remember. Therefore, revision activities must require you to think hard.
4. Information in our **long-term memory** is interconnected and linked with prior knowledge. Anything that is not connected or not successfully stored well enough in our long-term memory is forgotten and this is completely natural.
5. If students undertake enough **retrieval practice**, generating the information in our long-term memory, it increases a level of fluency within the subject. Practice makes perfect!

Forgetting is completely natural. Research has shown that over time you forget a majority of what you've learnt and it happens immediately. The following diagram outlines this process and is called the **Ebbinghaus Forgetting Curve** (1885).

Typical Forgetting Curve for Newly Learned Information



Ebbinghaus proposed that humans start losing 'memory of knowledge' over time unless the knowledge is consciously reviewed time and time again. He conducted a series of tests on himself which included the memorization of a meaningless set of words. He tested himself consistently across a period of time to see if he could retain the information. He found that:

- Memory retention is 100% at the time of learning any particular piece of information (in the moment). However, this drops to 60% after three days.
- A range of factors affect the rate of forgetting including motivation, the meaningful nature of the information, the strategies for revision and also psychological factors (sleep for example).
- If each day, repetition of learning occurs and students take time to repeat information then the effects of forgetting are decreased. According to research, information should be repeated within the first 24 hours of learning to reduce the rate of memory loss.

Practice and retrieval help to break this 'forgetting curve' as it strengthens the long-term memory and stops information from fading.

In summary, what do we know about memory?

- Consistent practice and revisiting previous material strengthen memory and boosts learning.
- Our working memory is finite and limited and so overloading this or cramming for revision doesn't work.
- Information, if not revisited, is 'lost' from our memory.

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English Language

Paper 1- Fiction reading and Creative Writing 40% 1hour 45 mins

Paper 2- Media and non-fiction and persuasive writing. 2 hours

Spoken language is awarded a 'Pass', 'Merit' or 'Distinction'.
June 2024

The most successful candidates:

- Read widely
- Can relate to the tasks
- Write with accuracy
- Can write at length

- Bedrock

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English Literature

Paper 1- Macbeth and Poetry Anthology 40% 2 hours

Paper 2- A Christmas Carol, An Inspector Calls and Unseen Poetry 60% 2 hours 30 minutes

The most successful candidates:

- Have excellent attendance – content is covered each lesson in Y10
- Get into good revision habits – little and often approach from now (Macbeth)
- Really get to know the texts

Past Papers

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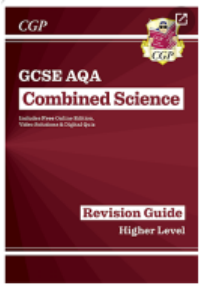
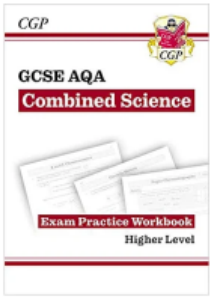
Science

Enhancing Learning





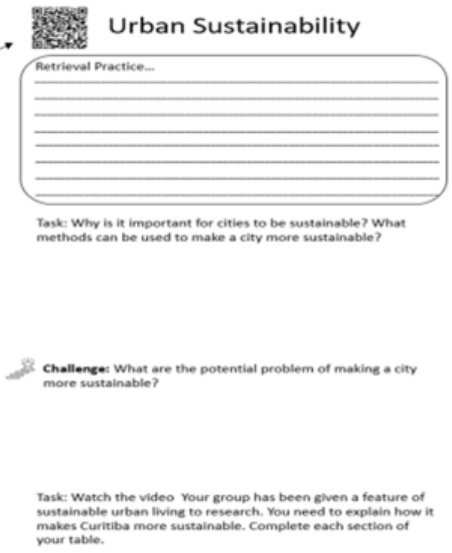
Educake

	Student	Year	Class(es)	Qs Answered	% Correct	Qs Set Themselves
1	[redacted]	11	11/Sc1 [LM]	1593	55%	1365
2		11	11/Sc2 [RBI]	2313	55%	1167
3		11	11/Sc1 [LM]	1278	65%	936
4		11	11/Sc2 [RBI]	1009	50%	692

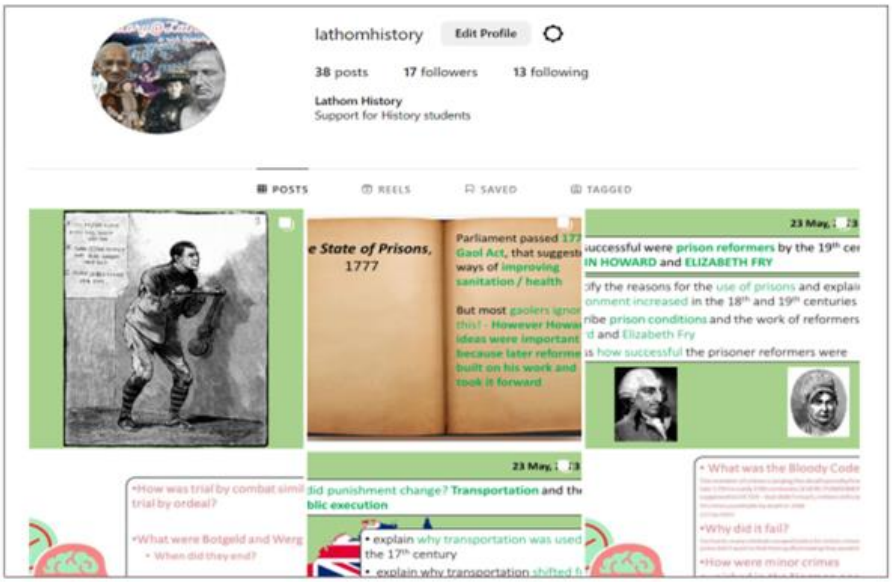
After an absence in Geography

After a period of absence, students will be given their workbook to catch up.

They simply scan the QR code at the start of each lesson, and enter their **school email & password.**



History


lathomhistory
Edit Profile
38 posts
17 followers
13 following
Lathom History
Support for History students
POSTS
REELS
SAVED
TAGGED
e State of Prisons,
1777
Parliament passed 177
Gaol Act, that suggeste
ways of improving
sanitation / health
But most gaolers ignor
this? - However Howa
ideas were important
because later reforme
built on his work and
took it forward
successful were prison reformers by the 19th ce
N HOWARD and ELIZABETH FRY
ify the reasons for the use of prisons and explai
onment increased in the 18th and 19th centuries
ribe prison conditions and the work of reformers
d and Elizabeth Fry
s how successful the prisoner reformers were
23 May,
did punishment change? Transportation and th
blic execution
• explain why transportation was used
the 17th century
• explain why transportation shifted fr
23 May,
•How was trial by combat simil
trial by ordeal?
•What were Botgeld and Werg
• When did they end?
• What was the Bloody Code
•Why did it fail?
•How were minor crimes


What was the impact of the Norman Conquest on crime and punishment in England?
Norman Society
New Norman Laws (*) - cause new crimes
Purpose


Killing a Norman
was made illegal
the Murdrum Fine was used to enforce this law (latin for 'secret killing')
a whole village would be subject to a crippling fine unless the murderer was caught

Religion & Worldviews

Homework isn't what it used to be!

Seneca have revolutionised homework:

1. Instant feedback
2. Very user-friendly (can do on their phone!)
3. Brilliant revision resource

Please do encourage your children to complete the homework – it's all working towards **high achievement** in Religion & Worldviews.

SENECA
Free interactive content to keep students engaged

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Computer Science

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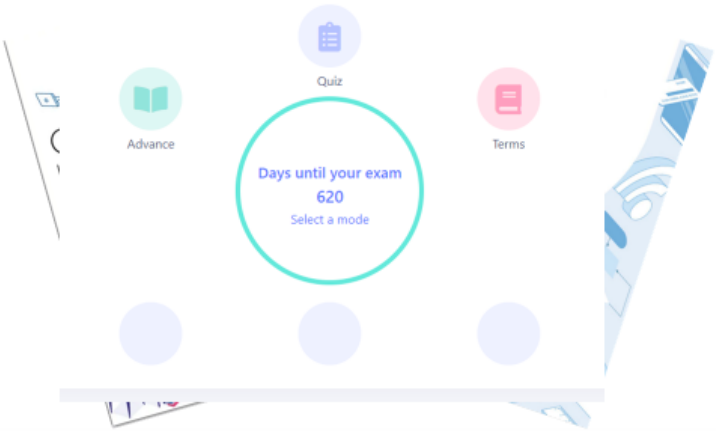
- Attendance – very important.
- Microsoft Teams / Exercise books / Worksheets.
- PG Online Books
- Craig N Dave Smart Revise Website (http://smartrevise.online)



Art and Photography
TIPS FOR SUCCESS IN YEAR 10

- All the work that we do in year 10 is submitted to the examiner at the end of year 11, so it all needs to be completed to the best of your ability.
- If you have unfinished work, you need to either complete it at home or come to art club at lunchtime or on Thursday after school.
- All homeworks, make up part of your coursework and are necessary to cover the course requirements – so they all need completing.
- Towards the end of the school year, we will put on some late-night intervention sessions – your attendance to these will be necessary.

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MFL
How can I revise?

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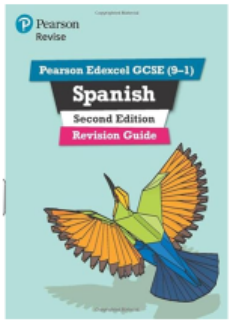
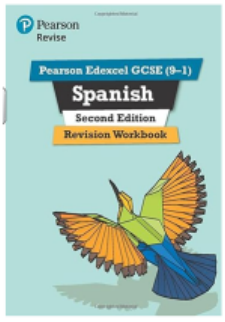
Know your vocabulary!
Memrise.com

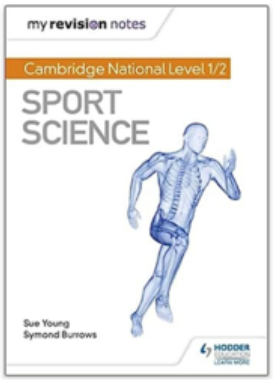
- **Use apps and websites such as Duolingo, GCSE Bitesize, Quizlet.**
- **Buy the revision guide for Edexcel GCSE Spanish (Grades 9-1) on Scopay/ Amazon.**
- **Keep a vocab book with key words and phrases from each lesson. Make flashcards to help you remember them.**
- **Watch Spanish films with subtitles in English.**





SPORT SCIENCE

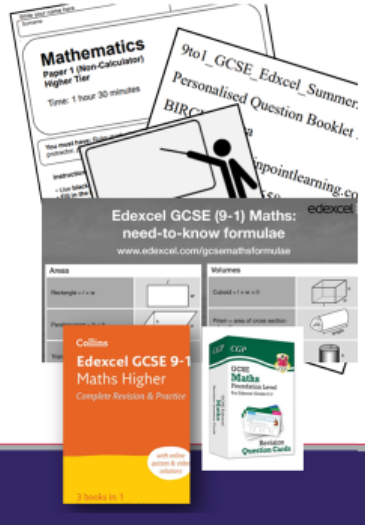
- Attend Thursday night intervention
- Purchase the sport science revision guide and workbook.
- Complete past exam papers in preparation for the exam – possible early entry Jan 25 (Resit opportunity in June 25).
- Give more answers than the marks for each questions.
- 60% coursework, 40% exam.

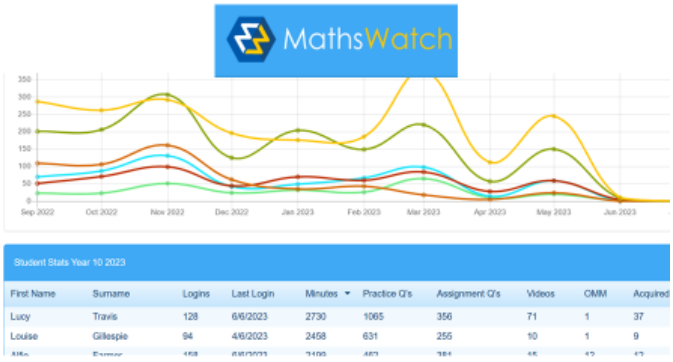


GCSE PE

- Attend Tuesday night intervention
- Purchase the GCSE PE revision guide
- Complete past exam papers in preparation for the exam
- Use a variety of practical examples and always name the activity/sport
- Give more answers than the marks for each questions.
- Take part in the 3 chosen activities as much as possible to help prepare for moderation next April.
- 30% practical, 70% theory.

Mathematics





Student Stats Year 10 2023

First Name	Surname	Logins	Last Login	Minutes	Practice Q's	Assignment Q's	Videos	OMM	Acquired
Lucy	Travis	128	6/6/2023	2730	1065	356	71	1	37
Louise	Gillespie	94	4/6/2023	2458	631	255	10	1	9

Participation + effort + support = exam success

DT Dept Route to Success

Complete all tasks set
Engage in all lessons (bring ingredients to all practical food lessons)
Practise at home with the required supervision
Take an interest in the subject as a whole
Revise using resources provided for all assessments and exams
Utilise web sites and apps for further study
Attend after school sessions
Enjoy the subject

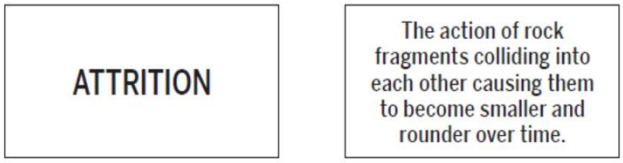
Good Luck
TEAMTECH

RETRIEVAL PRACTICE - FLASHCARDS

Simply put, recalling information from memory is simple and powerful. Retrieval practice is a learning strategy which makes you think hard and brings information to mind. It is the action of actively retrieving knowledge that boosts learning and strengthens memory. It means trying to remember previously learned information as opposed to simply re-reading it. It builds confidence over time and allows you to identify gaps in your knowledge. Examples include:

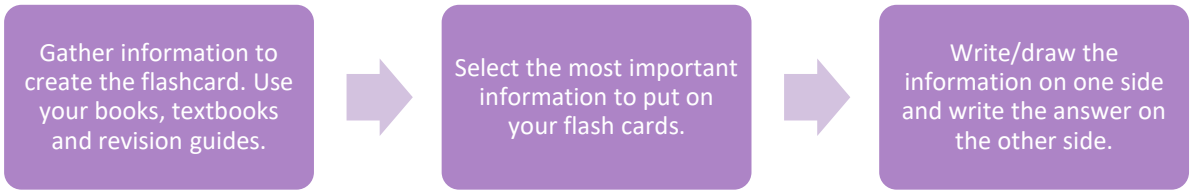
- Knowledge quizzing, low stakes testing and multiple-choice tests.
- Completing past paper questions or practice answers.
- Answering verbal questions asked by teacher/peers/parents.
- Summarising, creating flashcards or revision materials where you can 'test' yourself.

One particularly effective strategy is the creation and use of **flashcards**. Flashcards are generally a card containing a small amount of information on either side as an aid to learning. The use of flashcards is for low stakes testing to improve recall and to strengthen memory.



An effective flashcard may include the following (*in each subject they will be used in a different way*):

- A key term/key word with definition 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.



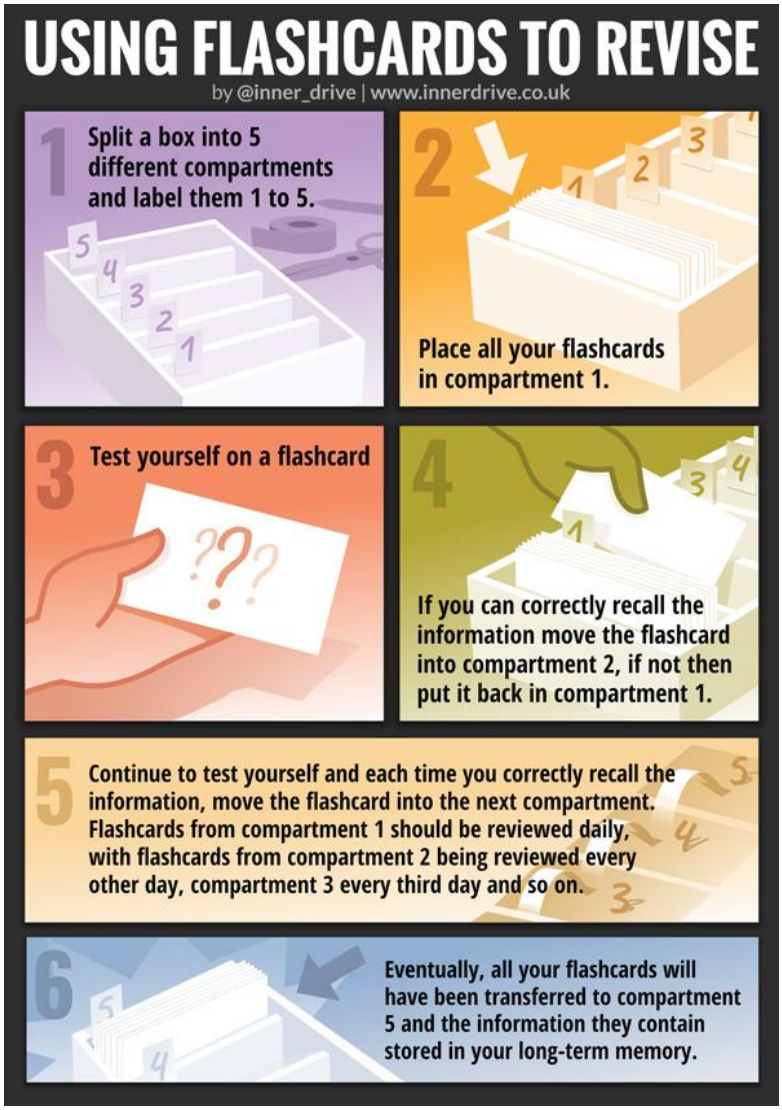
In order to use flashcards most effectively, the **Leitner System** is a desired strategy for spaced testing. Once you have created a set of flashcards, create three boxes/areas marked as the following.

BOX 1: Every day	BOX 2: Twice a week	BOX 3: Once a week

- Test yourself on the flashcards in the Box 1 pile. If you get the answer correct on the flashcard, move it to the Box 2 pile. If you get it incorrect, it stays in Box 1.
- Twice a week, test yourself on the flashcards in Box 2. If you get the answer correct on the flashcard, move it to the Box 3 pile. If you get it incorrect, it stays in Box 2. The aim is to get all of the flashcards to Box 3.

Retrieval and Flashcards 'Do':	*Retrieval* and Flashcards 'Don't':
• Put a single piece of information on each flashcard. • Sort your flashcards according to your confidence with them (see above).	• Spend more time making the flashcards than using them. • Put lots of information onto each flashcard.

• Create 'decks' for each topic. This may be a different colour card for each subject/unit. • Mix up topics so you aren't always testing yourself on the same topic. • *Practice the information you struggle and need to improve on.* • *Use PLCs, checklists or revision guides as a way to monitor your retrieval practice.* • *Move beyond recalling simple facts to detail and analysis.*	• Revise the flashcards in the same order every time that you use them. • Only read the flashcards – test your memory! • *Assume everything you've written is correct.* • *Throw away your quizzes or brain dumps.* • *Avoid testing yourself on tough topics or ones you dislike. You want it to be difficult.*

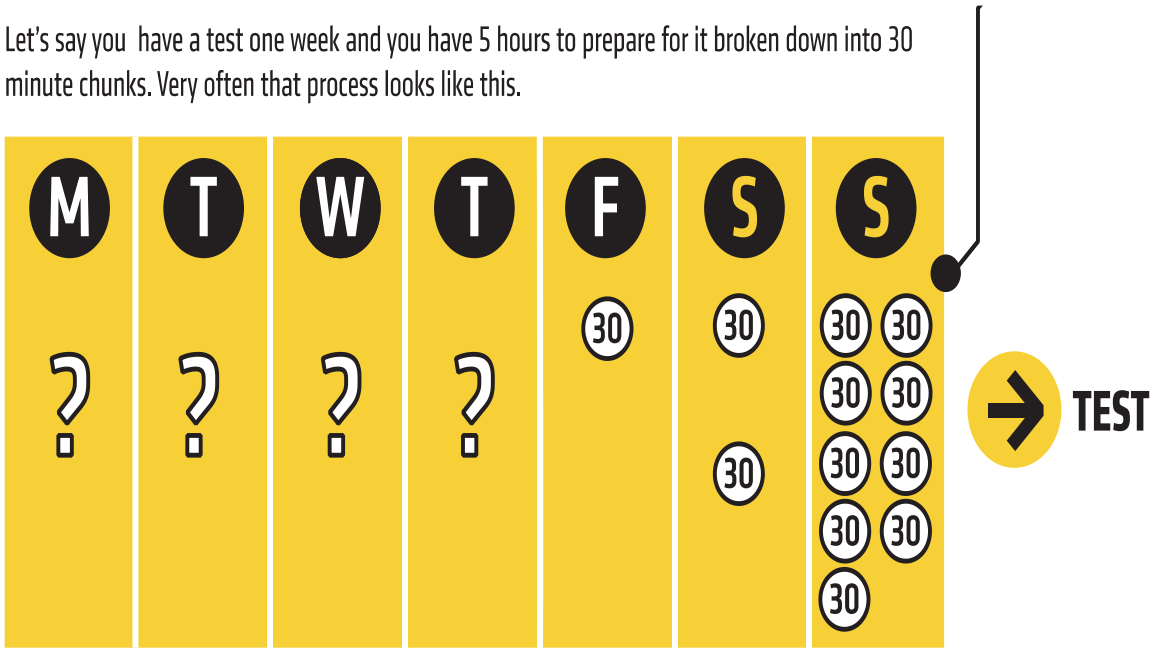


This video will help support you in using the Leitner system:
https://www.youtube.com/watch?v=C20EvKtdJwQ

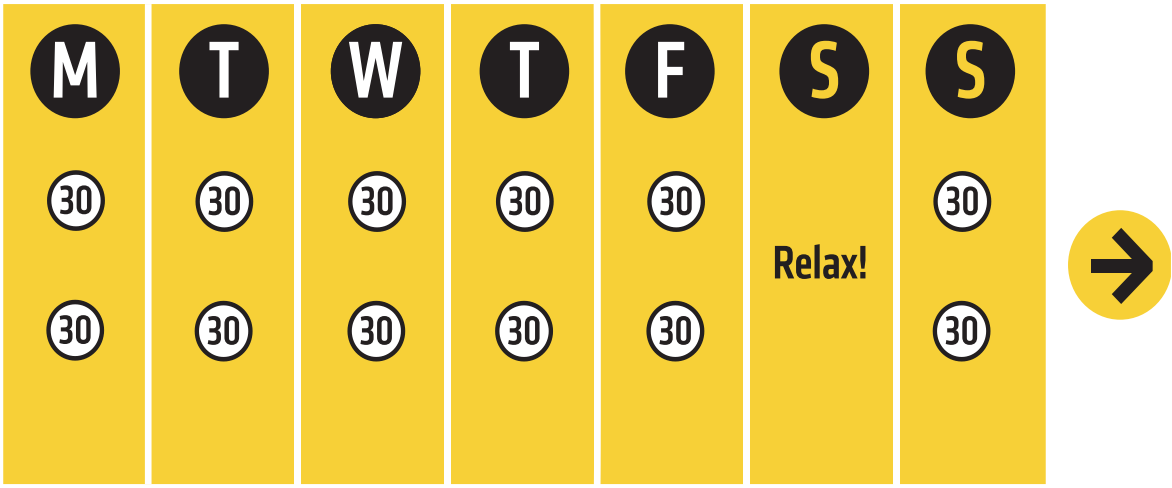
SPACING AND INTERLEAVING – PLANNING YOUR REVISION

Spacing out your revision into smaller chunks over a period of time helps you to remember the material better and ensures you are less stressed with your revision. This ensures you are not cramming as it will overload your memory and make you overconfident. By leaving time between revising and testing, the harder your brain works, the more chance of remembering.

Let's say you have a test one week and you have 5 hours to prepare for it broken down into 30 minute chunks. Very often that process looks like this.



Instead of mass practice, a much more effective way of revising is to space out your revision like this:



By breaking up your revision into 30 minute chunks and spacing out the time between revision, you will consolidate what you have learned and retain the material much more effectively.

Interleaving involves switching between ideas and topics during a study session and not revising in blocks of topics. This ensures that you are not studying one idea or topic for too long. Mixing up your revision and chunking it supports learning and strengthens your memory as we know you need to review information over time to reinforce learning. *If a subject involves a narrative (story), revise this in one piece.*

Instead of organising your revision like this:

M	T	W	T	F
Topic 1	Topic 2	Topic 3	Topic 4	Topic 5
Topic 1	Topic 2	Topic 3	Topic 4	Topic 5

This would interleave topics, think about connections between topics too.

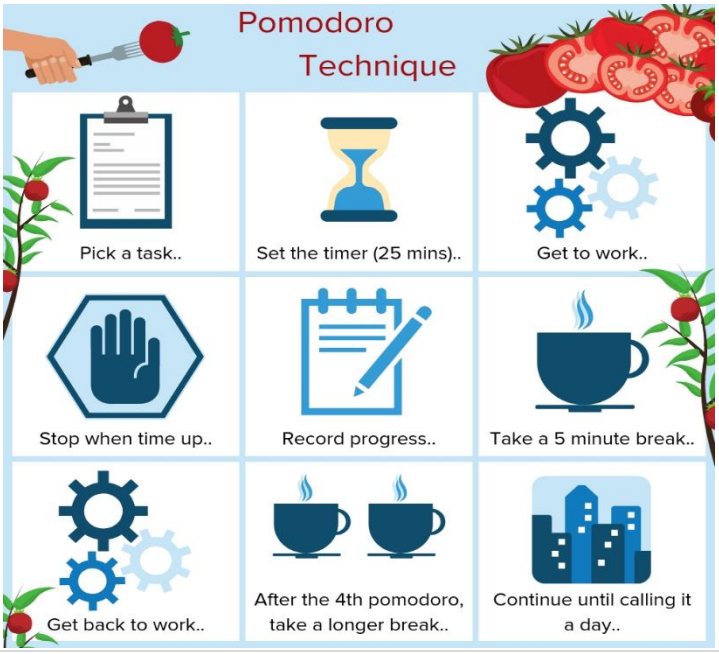
M	T	W	T	F
Topic 1	Topic 3	Topic 1	Topic 3	Topic 1
Topic 2	Topic 4	Topic 2	Topic 4	Topic 2

And then rotate you can rotate topics and subjects as you remember more.

DELIBERATE PRACTICE

Practice is essential. You can revise all you like but without practice, it is wasted. 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. A technique to support deliberate practice is the **Pomodoro Technique**.

Practice should be applying the knowledge and skills you need to succeed so may involve exam questions or planning answers.



Deliberate Practice 'Do':	Deliberate Practice 'Don't':
• Spend time practising what you will be tested on. • Practice the areas you struggle and need to improve on. • Make sure you review your practice – get a teacher to check it or review your notes and answers against mark schemes.	• Use notes, the point is you are doing it from memory! • Only practice areas you find easy or do well at. • Spend too long on a question – stick to timing and practicing what it will look like in exam conditions.

INEFFECTIVE REVISION STRATEGIES – WHAT DOESN'T WORK

With the above in mind, it is vitally important to think about strategies that students may employ that have a limited or no real benefit on learning or memory. 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'.

DEVELOPING REVISION ROUTINES AND HABITS

Within your revision, it is vitally important to establish a strong routine. Having goals are good for setting a direction. What do you want to achieve in *this* revision session? Habits are incredibly powerful in helping you to succeed. If you have the mindset of wanting to be a better student and build the habits to become the person you want, the results will come. Getting one percent better every day counts for a lot in the long-run.

In order to support the forming of good revision habits, there are a number of areas to consider:

- Start small and build up – reduce distractions where and when you revise and get your family to encourage the creation of a revision timetable and placing it somewhere visual in your house. Ensure someone else is knowledgeable of this timetable to enable accountability and aid support. Start revising for a short amount of time and build up over time.
- Make it attractive – collaborative focused revision (with friends) is beneficial (alongside attending interventions or revision sessions) but you could also ensure there is a 'reward' at the end of a revision session. *If I complete this, I can do this.*
- Make it satisfying and rewarding – challenge yourself, track your own revision progress and ensure you stick to your revision timetable. Small steps build success and motivation. Use checklists to support. Focus on 'I'm a hard worker' than 'I want a Grade _'.

CREATING AN EFFECTIVE REVISION ENVIRONMENT

CREATING A REVISION TIMETABLE

1. Collate all your topics and determine where you need to focus your time for the half term.
2. Create a table for a week with 30-minute revision slots and breaks built in.
3. Write the subjects in the table, leaving yourself time between each subject.
4. Type it up so you re-use it and edit it. Ensure it is easy to check and find.
5. Put it somewhere visible and tick off completed sessions = see the success! Share it at home and set rewards linked to your revision.
6. Move between subjects week by week. You cannot revise all subjects in one week.

For an example revision timetable, see below. *This involves only English, Maths, Science and Options to show how a timetable may look but please ensure all subjects are included depending on the focus at a given moment.*

Subjects				English	Maths	Science	Options
	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
30 mins	Homework	Homework	Homework	Homework	Educake	English-Youtube	Educake
30 mins	Flashcards-Literature	Homework-Mathswatch	Educake	Maths watch	Educake – other subjects	Mathswatch	Homework

CAREERS SUPPORT

19th October – Careers Fair

Mock Interview Practice

25th June 2024– West Lancs college

27th June 2024-Wigan and Leigh College

Winstanley College / St John Rigby Masterclasses

1st – 5th July 2024 Work experience

Year 11 Apprenticeship Support

Opening Visits