



Year 13

**Exam Preparation and
Revision Guide**

2023/24

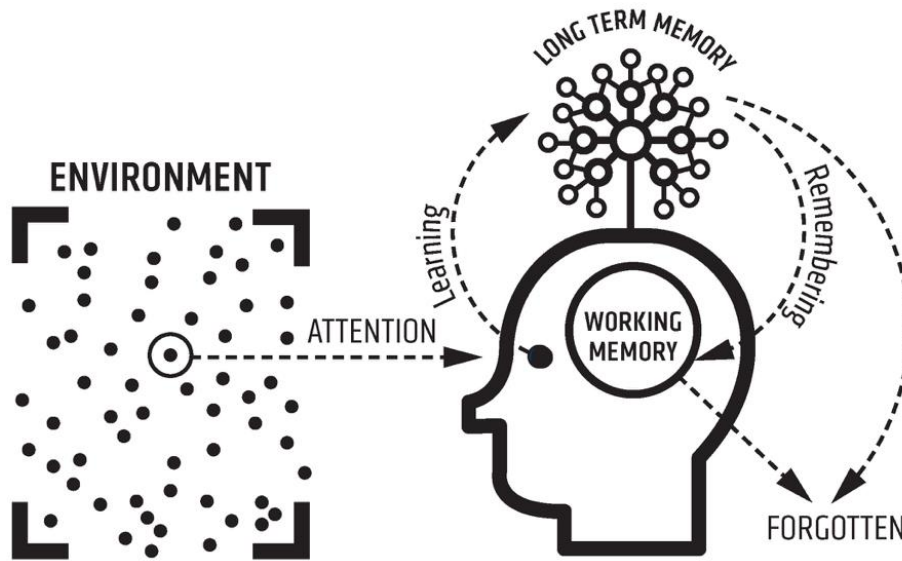
February Mocks

Name: _____

Tutor: _____

How do our brains process, store and recall information?

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



1. We only have a certain amount of attention to give at any one time. This can be limited and can dramatically vary depending on the individual or the **environment** (classroom noise, distractions, etc). 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. We call this **cognitive overload**. Research informs us that the working memory can only deal with around 4 immediate things at a time. Any more and cognitive overload will start to make us confused and forgetful. This is why cramming your revision the night before a test is a bad idea as most of the information will be forgotten before it's even been processed!
3. Information is processed from our working memory to our **long-term memory** through '**learning**' (or **thinking**). The 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, building schema (like spiderwebs of information!). Anything that is not connected or not successfully stored well enough in our long-term memory is forgotten and this is completely natural.
5. Retrieval is basically the term used for bringing information from the long-term memory back to your working memory. If you undertake enough **retrieval practice**, generating the information in our long-term memory, it increases a level of fluency within the subject. Pathways in the brain

become stronger through retrieval, allowing us to recall information more accurately with less effort. Practice makes perfect!

If you wish you can watch these short videos for more in-depth explanations of the learning process.

<https://youtu.be/HKpG6CD3yhM> - The self-testing toolkit, Ivybridge Community College

<https://www.youtube.com/watch?v=r1sDjWfDa4w> - How We Learn – Synapses and Neural Pathways

Why do we forget information that we've learnt in class?

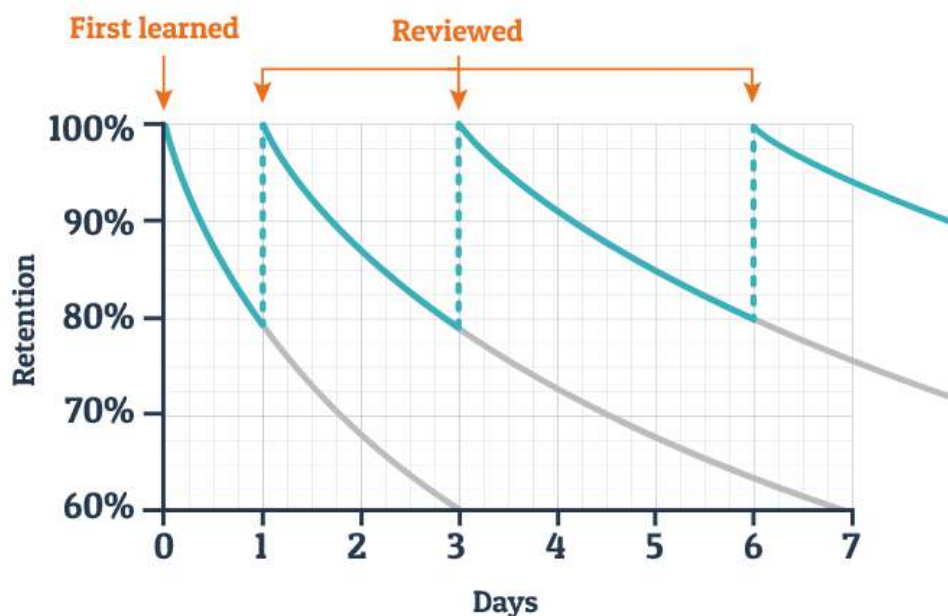
Forgetting is completely natural – otherwise our brains will be so full of useless information that we wouldn't be able to function at all.

Research has shown that over time you will forget the majority of what you've learnt and, unfortunately, this process starts to happen almost immediately after you first process new knowledge in your **working memory**.

Psychologist Hermann Ebbinghaus proposed that our 'memory of knowledge' will reduce rapidly over a short period of time unless the knowledge is regularly reviewed or re-learnt (**Spaced learning** or **Retrieval Practice**). Retrieval of previously learnt information over time **slows the rate of forgetting**, strengthening pathways in the brain therefore making knowledge more accessible for when we need to use it again.

The following diagram outlines this process and is called the **Ebbinghaus Forgetting Curve** (1885).

Typical Forgetting Curve for Newly Learned Information



Practice and retrieval help to break this 'forgetting curve' as it strengthens the long-term memory and stops information from fading. The more you revisit what you have learnt, the more you will remember!

You can find out more about the **Ebbinghaus Forgetting Curve** and **Spaced Retrieval**

<https://www.youtube.com/watch?v=SCsQHe-NpaM> – What is the Forgetting Curve?

<https://www.youtube.com/watch?v=4IXQMIBPljw> – How to study

Setting up the perfect environment for learning

The first (and most important) step to learning is **attention**.

We know that our working memory can only hold a small amount of information at once. Therefore, to revise and learn effectively, you should use techniques which free up your working memory and stop it from being overwhelmed. One way is working in an **environment** which is free from distractions.

For example, some people still think that playing music in the background during study time will improve their learning – wrong! Your working memory has to process what you are listening to so music only reduces your capacity to **think hard** about other things.

So here are some tips for creating the perfect learning environment at home.

Find a quiet, tidy room with minimal distractions – your bedroom, library or classroom.

Put your revision timetable, exam timetable and other documents visible on your wall

Make sure you have a drink and snack with you, staying hydrated and full is important



Put your phone in another room, it is too much of a distraction -

Loud music is a distraction, if you must listen, it needs to be low tempo, without lyrics

Have all your revision materials and stationary on your desk ready to go - make it obvious



Whilst **phones** are a brilliant invention, research has found that they have a negative impact on revision and learning. It can reduce concentration, impacting working memory, impact your sleep due to the bright lights and distractions, reduce your motivation to revise and through listening to music, you are more likely to remember the lyrics to the song than the material you are revising.

As much as we all love our phones, you cannot give your full attention when you are constantly being distracted by Snapchat and Instagram notifications. **Turn off your phone** or simply put in another room during study time. It will not harm you...we promise!

Think about your study area at home. What 4 things could you improve about your learning environment.

1. _____

2. _____

3. _____

4. _____

Establishing strong routines

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:

- **Make it obvious** – revise in one area, leave your materials out ready to support organisation and ensure routines are stuck to. Ensure your environment is clear, uncluttered and comfortable.
- **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 knowledge organisers, mark schemes or checklists to support. Focus on ‘I’m a hard worker’ than ‘I want a Grade B’.

How do you intend to reward yourself after each period of dedicated study? A bar of chocolate and a hot drink? A quick catch up with friends on your phone? A relaxing bubble bath? A walk with the dog?

How would you reward yourself for the following?

- After a 25-minute burst of focused study? _____
- After achieving over 80% correct answers in a retrieval test? _____
- After a day or evening of dedicated study? _____
- After a week of smashing your revision goals? _____
- After your exams are finished and you have done your absolute best? _____

Deciding on what to revise

Whenever you revise, you are doing one of three things:

1. Finding and closing gaps in your knowledge
2. Strengthening fading knowledge in your long-term memory
3. Practising recalling knowledge quickly

Whichever purpose your revision has, it is important that you focus on the weaknesses within your knowledge. It is tempting to revise topics you're already good at. However, if you do this, you waste valuable revision time and you could get a nasty shock when you don't do well in exams or assessments.

Before you start revising for a subject, you should decide what you **need** to focus on.

When deciding what to revise:

Do:

- ✓ ...gather information about the topics which you need to revise.
- ✓ ...break subjects and topics down into manageable chunks.
- ✓ ...revise topics which you don't enjoy or which you find difficult.
- ✓ ...keep a record of the topics you have chosen to revise and the revision you have completed for those topics.

Don't:

- X ...spend more time making lists of what to revise than actually revising.
- X ...write down entire subjects or topics as areas to revise.
- X ...revise topics you enjoy or topics in which you are already successful.
- X ...expect yourself to remember the areas which you need to revise.

How to decide what to revise:

1. Use information from a range of sources to find out where your weaknesses are.

What topics **don't** I enjoy or feel success in?

What does my teacher think I need to revise?

What are my weakest areas on platforms like Sparx?

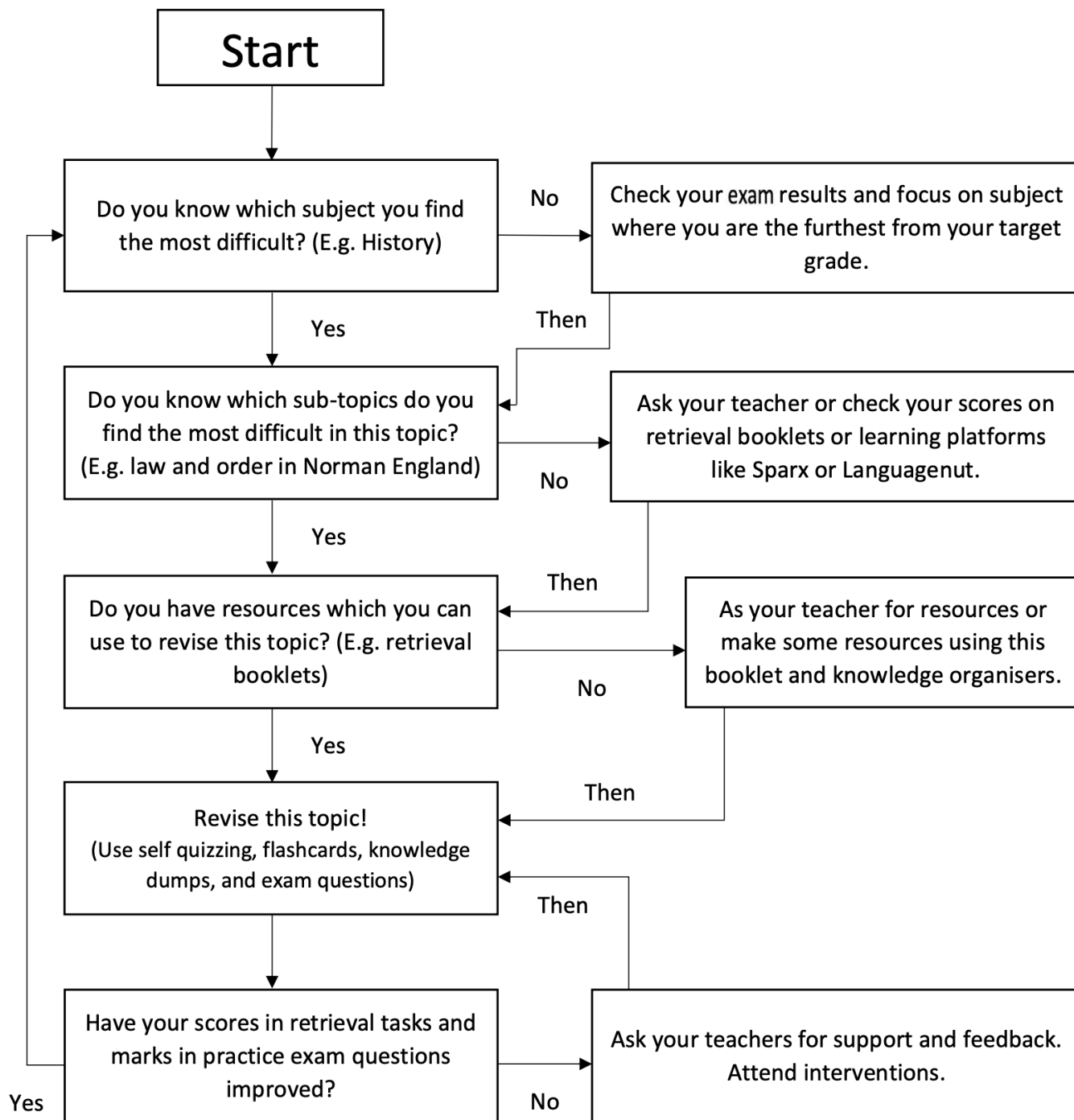
In which topics or questions did I struggle in my last assessment?

2. Create a table of topics and subjects on which you need to focus.

Topic:	Scores:					
Reasons why people migrated West in the 1840s	20%	15%	37%	45%	50%	
The Catholic Church and medicine in the Middle Ages	40%					
Clashes between Norman Kings and the Church	30%	33%				

3. As you complete revision on these topics, fill in your scores. This will allow you to see your success over time.
4. As you become more successful in the areas you have identified, go back to step one. This will allow you identify any gaps in new knowledge or any information which has faded since you made your first list.

Use the flowchart below to figure out one topic which you need to revise. This will only be one topic for one subject. You will then be able to use this method to help you decide what other topics should revise, both within the subject you choose and within other subjects. You can still use other methods.



Top tips for revision success

1. Start revising early

Months before the exam, not days before the exam.

2. Plan your revision using a timetable

Planning out your revision means you can spend more time revising and less time worrying you've forgotten something.

3. Don't spend ages making your notes look pretty

This is just wasting time. For diagrams, include all the details you need to learn, but don't try to produce a work of art.

4. Set up a nice, tidy study space

You'll need somewhere with good lighting, your pens close by, your phone out of sight and your TV unplugged. Try not to revise on your bed, or you'll be dreaming of pink igloos and elephants before you know it.

5. Vary your revision with different activities

Try a variety of different revision techniques — answering practice questions, writing down notes from memory, and using Revision Guides, Flash Cards, Exam Practice Workbooks

6. Do lots of practice papers and questions

You'll find it far easier to answer questions in the exam if you've tried similar ones at home beforehand.

7. Set aside time to do fun things — don't turn into a revision zombie

Don't totally stop yourself from having fun. This'll help you stay motivated, relax, and allow you to keep up with your favourite hobbies.

8. Keep your phone and other distractions away.

Phones are great, but they're a one-stop shop for procrastination. Heed our warnings and stick it in a drawer while you're revising.

9. Don't just read your notes

You have to WRITE STUFF DOWN. This is really basic "how to revise" stuff.

10. Sleep and eat properly

Sleep is more important than you'd imagine — it helps your brain store all the juicy information you've learned throughout the day. Drinking plenty of water and eating healthy foods will also boost your concentration throughout the day.

11. On exam day, make sure you arrive in plenty of time

Nothing adds extra pressure to exam day like the fear of being late. Just make sure you set off at a little earlier than usual. While you wait, if people around you seem stressed about the exam, try to relax and not let their worries affect you. Pack all the right equipment the night before so that you are prepared.

Note Taking – Find a technique that works for you

You may like making a note planner which ensures that you will have an idea of the areas of the curriculum you really need to focus on, as well as the areas that are not that relevant. This also means you can create a checklist of what you have already covered throughout your revision, as well as saving you time revising only the important stuff!

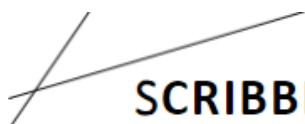
Here is a note making planner for you to use in future. Photocopy it or replicate for every subject or exam paper you need to prepare for.

https://go.elevateeducation.com/ssplanner?utm_source=Plymstock+School+and+Sports+College

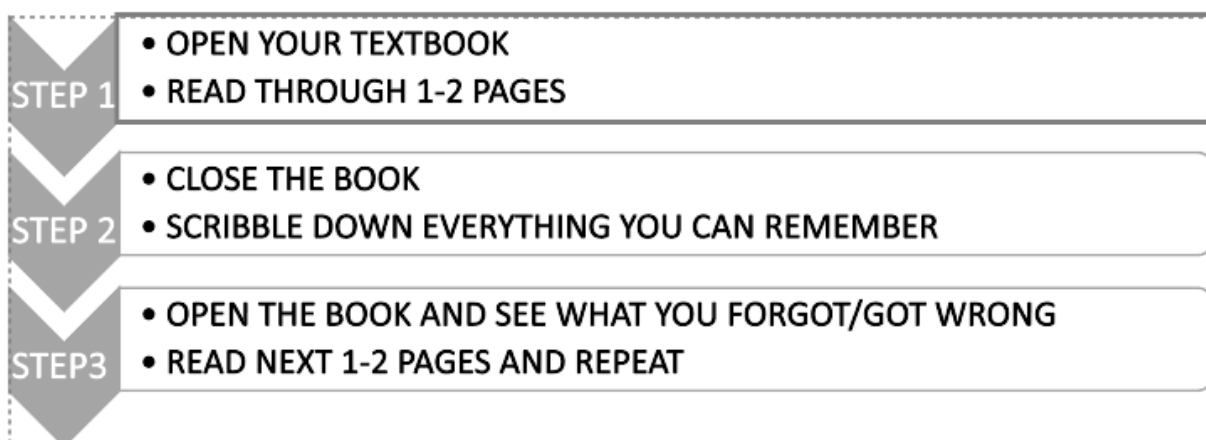
Watch the following clip

https://go.elevateeducation.com/ssnotes?utm_source=Plymstock+School+and+Sports+College

Note making checklist – Do you have access to all this equipment?	Yes	No
Blank paper		
Black/Blue Pens		
A range of coloured pens		
Access to the information you need to learn (exercise book, booklet, handouts etc)		
Access to your exam specification (printed copy or online version)		
Revision guide or textbook		
A folder / dividers to store your notes in subject or topic order		



SCRIBBLE TECHNIQUE AN ALTERNATIVE TO NOTE TAKING



Revision Techniques

There are so many revision techniques that can be used but you need to find the right one for you. However, past papers are one of the most effective ways to revision. Using the power hour technique below combines revision and testing.

Power Hour

Choose past paper question/s

Firstly, you need to find a past paper question/s to answer and the mark scheme. Print of a selection of these so you have them ready for when you do power hours.

Revise

Set a timer and spend 20 minutes revising what you need to know to answer the question/s you've chosen.

Use the revision techniques you've identified as being the most successful for you.

Answer the question/s

Set the timer again for 20 minutes and answer the past paper question/s you have chosen. You can adjust the 20 minutes depending on the type of question you are doing you may need a bit longer for an essay question.

Mark your question/s

Use the mark scheme to mark your work.

Don't skip this step. If you don't mark your work, you won't know where you are making mistakes. It will also help you learn what examiners are looking for.

Feedback

If you are unsure how accurate your marking is or you want to know how to improve, show your teacher your work.

Getting feedback will help improve your confidence in your ability to analyse your work.

Other Revision Techniques

1. Mind Maps
2. Flash Cards
3. Post-it Notes
4. Posters to make diagram or summarise a module/chapter on one page. Stick it up where you can see it often so you can quickly recap.
5. Complete online quizzes
6. Make your own quizzes
7. Get someone to test you, friend, sibling, parent.
8. Test yourself
9. Revision notes – summary of your original notes
10. Make an audio recording of a topic and listen back on a walk, run or bus journey
11. Subject podcasts – Spotify have loads
12. Make a video
13. Make a game
14. Play the game 'Just a minute' -try and talk about on a subject for one minute without hesitation, deviation or repetition.
15. Watch a documentary about the subject.
16. Watch a YouTube video about the subject.
17. Create a mnemonic.
18. Find an alternative textbook on the subject to see if it explains the topic differently.
19. Discuss the work with a friend – this is great for complex concepts.
20. Write a condensed argument both for and against an idea or concept.
21. Create essay plans for past paper questions with and without notes.
22. Create a model using playdough or clay to show different stages of a process.
23. Teach someone else.
24. Ensure you know what different command words mean e.g. describe, explain, discuss.
25. Read the information out loud to yourself over, and over again
26. Write the information down over, and over again.

How to use flashcards effectively

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.

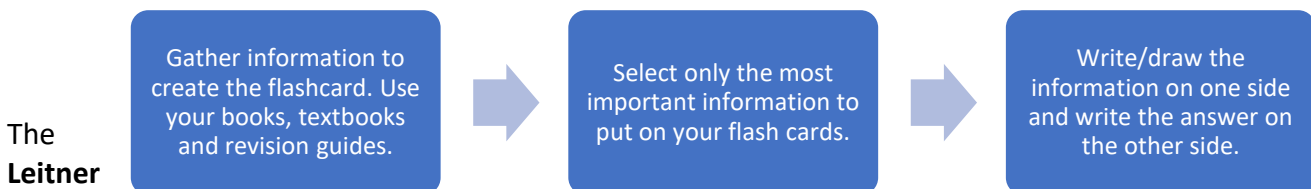
One particularly effective strategy is the creation and use of **flashcards**. Flashcards are generally a card containing a small amount of information on either side as an aid to learning. The use of flashcards is for **low stakes testing** to improve recall and to strengthen memory.

ATTRITION

The action of rock fragments colliding into each other causing them to become smaller and rounder over time.

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.



System is a desired strategy for spaced retrieval/practice testing. Once you have created a set of flashcards, create three boxes/areas marked as the following.

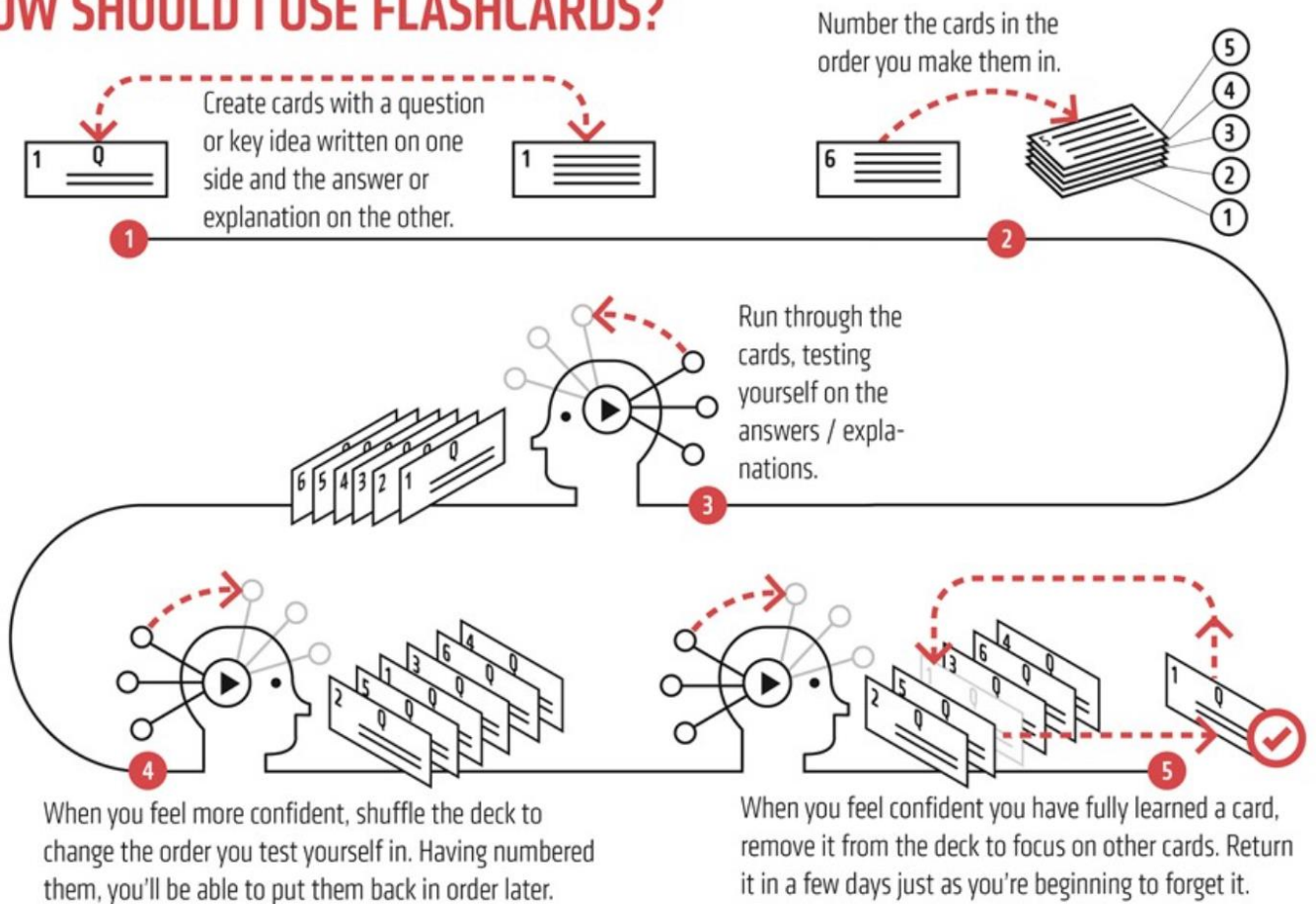
BOX 1: Every day	BOX 2: Twice a week	BOX 3: Once a week
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- Test yourself on the flashcards in the **Box 1** pile. If you get the answer correct on the flashcard, move it to the **Box 2** pile. If you get it incorrect, it **stays in Box 1**.
- Twice 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 goes **back to Box 1** to be tested every day until you get it correct. The aim is to get all of the flashcards to **Box 3**.
- After you can confidently recall the information in **Box 3** without forgetting any information, move the flashcards out and store them away. Plan to recall this information at a later date to see if you can still remember it (maybe 1-2 months later).
- Replace the learnt flashcards with new cards and begin the process again.

This video will help support you in using the Leitner system.

Another effective method of using flashcards is the **shuffle technique**.

HOW SHOULD I USE FLASHCARDS?



The

<i>Retrieval and Flashcards 'Do':</i>	<i>Retrieval and Flashcards 'Don't':</i>
<ul style="list-style-type: none"> Put a single piece of information on each flashcard. Sort your flashcards according to your confidence with them (see above). 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. <i>Practice the information you struggle and need to improve on.</i> Use mark schemes, knowledge organisers, checklists or revision guides as a way to monitor your retrieval practice. Move beyond recalling simple facts to detail and analysis. 	<ul style="list-style-type: none"> Spend more time making the flashcards than using them. Put lots of information onto each flashcard. 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.

two

most effective techniques were **practice testing** (asking yourself questions about what you studied) and **retrieval practice** (studying in relatively small segments over a period of time).

The other techniques varied in effectiveness from moderate to low. Curiously, recent surveys cited by the authors indicate that students seem to favour re-reading and highlighting, two strategies that have relatively low impact.

What is clear from the study is that **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.

What is cumulative quizzing?

Watch this video to find out - https://youtu.be/NacP_WbEOw0 – Ivybridge Community College

WHY SHOULD I DO CUMULATIVE QUIZZING?



Is it useful to build-up a quiz over a longer period of time?

Yes. Gradually adding questions to a quiz will help you in two ways. Firstly, by testing yourself from the start of the quiz each time, you will force yourself to go back over old learning just before you forget it. Secondly, by answering the same questions every few days you will get quicker at recognising the knowledge and skills needed to answer them.



Isn't it pointless to keep answering questions I already know the answer to?

No. Scientists studying the brain have shown that spacing out the time between testing yourself will help you to recall the knowledge and practice the skills needed to answer questions. By gradually adding questions to quizzes over longer periods, you will let just the right amount of time pass between answering them. Because we are always gradually forgetting, the more often we remind ourselves the easier it becomes to remember. Eventually, it will be like riding a bike or speaking a language...no one will need to remind you or show you how to do it because you will be able to do it without a second thought.



HOW SHOULD I DO CUMULATIVE QUIZZING?

1 Study a topic and add a question or two to your quiz based on what you have learned.



2 Write down the answer somewhere hidden e.g. on the back of the page.

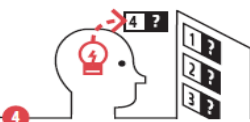


3 The next time you are about to study, take out your cumulative quiz and test yourself on all of the questions you have written previously.



4 Have a go

4 Add a question each time you finish studying the next section of a topic.



5 Answer all of the questions that are building up each and every time, before you study fresh material. The list will get longer, but answering the questions will get easier.



Use one of your exercise books/textbooks and write down a few challenging questions in the left hand column. Write the correct answers to the question in the right hand column.

Now cover the answers and practice recalling the answers completely from memory. It is ok if you get some answers wrong as this will help strengthen your memory recall, giving you a better chance of remembering information more accurately in future.

Questions	Answers

USEFUL REVISION WEBSITES

<https://getrevising.co.uk/>

<https://senecalearning.com/en-GB/>

<https://quizlet.com/en-gb>

<https://www.physicsandmathstutor.com/>

<https://corbettmaths.com/category/a-level/>

<https://www.savemyexams.com/a-level/>

<https://studywise.co.uk/a-level-revision/>

<https://www.youtube.com/c/tlmaths>

<https://www.physicsandmathstutor.com/english-revision/a-level-aqa/>

Revision Timetables

There are lots of ways of devising a revision schedule. The key thing is it shouldn't be over-complicated, it should be realistic and it should enable you to cover what you need to cover and include repetition. The Layering Approach enables you to do all of those things.

LAYERING APPROACH

The layering approach allows you to revise all your subjects 3 times (or more if you start early enough).

Layer 1

The aim of Layer 1 is to understand and learn all the material, rather than trying to cram before your exams.

During this stage you will have time to go through the more complex areas of the course to ensure you fully understand them.

1. Use the specification/textbook so you know what content you need to cover.
2. RAG the topics.
3. Use your textbook and go through each chapter thoroughly. Either start at the beginning or start with the topics you feel least confident in.
4. Spend time learning the key principles using various different resources (i.e. revision guides, websites, YouTube)

Layer 2

Layer 2 focus' on preparing for the exam, you should not be covering or trying to understand concepts for this first time. At this point you should have covered all of the content needed for the exam.

1. Read through the entire subject content – you should be able to get through the content faster as you covered it in Layer 1.
2. Complete past papers.
3. Time yourself and ensure you stick to the exam timings.

Layer 3

Layer 3 is your chance to recap.

1. Skim read the specification content.
2. Skim through any notes/revision resources you have made.
3. Go through past papers and mark schemes.

Recap

1. Skim through any notes/revision resources you have made.
2. Go through past papers and mark schemes.

No. Of Days	Plan	
Day 80-70	Revise Subject 1: 1st thorough repetition	Layer 1 Total 40 Days
Day 70-60	Revise Subject 2: 1st thorough repetition	
Day 60-40	Revise Subject 3: 1st thorough repetition	
Day 40-30	Revise Subject 4: 1st thorough repetition	
Day 30-25	Revise Subject 1: Moderate repetition	Layer 2 Total 20 Days
Day 25-20	Revise Subject 2: Moderate repetition	
Day 20-15	Revise Subject 3: Moderate repetition	
Day 15-10	Revise Subject 4: Moderate repetition	
Day 10-8	Revise Subject 1: Brief repetition	Layer 3 Total 8 Days
Day 8-6	Revise Subject 2: Brief repetition	
Day 6-4	Revise Subject 3: Brief repetition	
Day 4-2	Revise Subject 4: Brief repetition	
Day 2-0	Skim through material and rest	Recap 2 Days

Developing an Exam Routine

Mock exams provide you with practice in preparation for your real exams in the summer. Mock exams are a perfect way for you to experience what the exam will feel like, as well as provide you with a better understanding of what you already know, and where your gaps in knowledge are.

All exams are important. In the past, your teachers have heard so many excuses from students who have left things to the last minute and feel under-prepared for their mock exams.

“I haven’t done any revision because I want to know how much I already know in the mock exams”

“Mock exams are not important. I’ll just make sure I revise for the real exams”

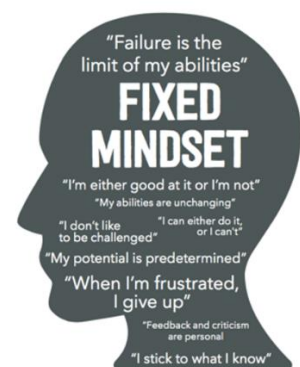
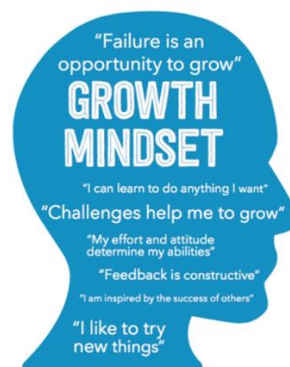
“My coursework mark is already high so I don’t need a high mark to get my target grade”

“I’ll just stay up before the exam to cram the revision”

These types of excuse almost always end up with the same outcome – a poor performance in the exams. This will be a wasted opportunity to sharpen your exam technique and identify your strengths and weaknesses.

However, mock exams can still be stressful and it’s important to look after yourself. Developing your own personal exam routine is a good way of reducing anxiety and make you feel more in-control of your emotions.

Mindset



Your mindset helps guide you to realise what you are capable of and ensures that you achieve. These elements are key to a good mindset



We asked young people to give us some wellbeing advice for exam time and this is what they told us:

1. Always take a moment just to breathe, whether in the exam, before or after
2. Remember that school does offer support, just reach out and ask!
3. Keep your work balanced. Spend time revising but socialise and relax too
4. Keep a self-care routine so that your revision is the most productive it can be whilst you feel as good as possible
5. Break up revision with food and exercise to make sure you stay energised
6. Remember that results do not define you
7. Find a revision space and style that works for you
8. Work to your own pace – everyone is different in how they work
9. If you feel nervous about the time pressure of an exam, practice timing yourself when you revise, or try some test papers
10. Plan in some treats to reward yourself and celebrate when it's all over!

Using the list above as a guide commit to 3 things that you can do to look after your own wellbeing.

Commitment 1:

Commitment 2:

Commitment 3:

Developing an exam room routine



Watch this video on the importance of developing an exam routine -

https://go.elevateeducation.com/ayeexamroutine?utm_source=Plymstock+School+and+Sports+College

Use this template to ensure you've prepared everything in the lead up to your exams.



Exam Check List

Task	Complete?

Do you have all your exam equipment?

Exam Equipment	Yes / No
At least 2 black pens	
Pencil	
Ruler	
Clear Pencil Case	
Scientific calculator	
Sharpener	
Rubber	

Best of luck in your Exams!