

# Optimising Student Success – J Macnamara, Attainment Mentor Kinross High School

For more info please refer to the KHS website <https://www.kinrosshighschool.org.uk/pupils/extra-curricular-and-supporting-study/>

## How we learn

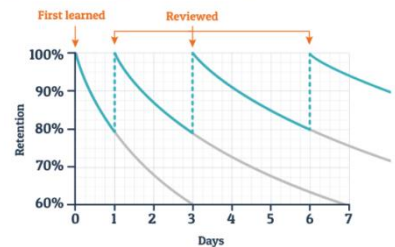
For learning to be successful all 3 of the following stages need to occur.

1. Encoding = being introduced to new material = uploading information.
2. Storage = Information needs to be stored in a way we can find it again.
3. Retrieval = Accessing stored information = downloading it = being able to use it in assessment situation

## Why do we need to revise/study to be successful in assessments?

As soon as we are exposed to new information, we start to forget it. This is completely normal. We cannot expect to be exposed to new content once in a lesson and remember it in a future assessment situation. The Ebbinghaus forgetting curve shows that if we return regularly to the same information (revise) then we are more likely to remember more of it.

Typical Forgetting Curve for Newly Learned Information



## Evidence based strategies

Revision/ study myths 🐎	Revision/ study facts 📄
1. Last minute cramming	1. Start early and spacing out
2. Re-reading/copying notes	2. Testing/ quizzing is more effective
3. Highlighting text	3. Looks pretty but is ineffective.
4. Studying one topic	4. Better to mix up topics
5. Listening to music helps	5. Reduces concentration/ focus
6. Learning is easy	6. Learning is hard, it requires effort

In recent years there has been a huge amount of research in cognitive science with focus on how to optimise student success. It is important to note that learning can occur with the methods on the left side (revision myths) BUT it will take much, much longer compared to using evidence-based strategies (revision facts). E.g. you can revise with music on but research tells us that students who revise without music perform 60% better than those who revised listening to music with lyrics.

The key is that learning is more likely to occur when practice (revision) is **spaced** out (e.g. 4x30mins over two weeks rather than 2hrs the night before a test) and

**interleaved** (mixed up rather than always in the order in which it was taught). This is explained in the recorded presentation on the KHS website.

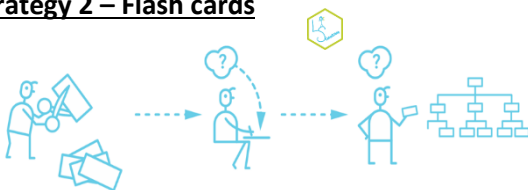
### Strategy 1 – Brain dump. 🗒️



Choose one topic from a subject, set a 10-minute timer and without looking at any books/ notes etc. try to write/ draw everything you can remember about that topic on a piece of paper. Then check to see what you have been able to remember. This is powerful because it allows you to see what you

can and can't remember (we often overestimate the amount we can remember).

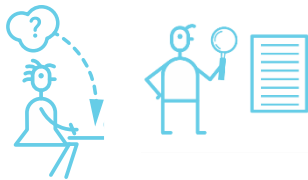
### Strategy 2 – Flash cards 🗒️



Use your notes to make them so you know that they are accurate. Test yourself/ get someone else to test you. Ensure that you can answer the question either by saying it or writing it. It is not enough to think I know the answer to that. You can look for links between cards and physically move them into groups. There are

numerous digital versions including Quizlet. You can search for sets of pre-made digital flashcards (again make sure you include SQA the subject and the level N5/H/AH). You can also use the Leitner System which is explained in the powerpoint presentation on the KHS website.

### Strategy 3 – Quizzing



Create quizzes/ sets of questions for each topic in a subject. These will be more powerful learning if the order is mixed up. Answer the questions from memory and check the answers. Tick off those you get right and do those you get wrong repeatedly until you get them right.

### Strategy 4 – Challenge grids

Again, use questions but this time assign points to questions depending on how long ago information was introduced. E.g., 1 point for content from the last week, 2 points from last month, 3 points from last term.

#### Logistics and where to start

To be successful course content needs to be learnt and exam technique honed = effective revision + timed past paper questions.

Last lesson 1	Last week 2	Previous unit 3
Draw the Burgess Model.	Explain the push and pull factors for an example of forced migration you have studied.	What is urbanisation?
Describe how street pattern varies through a typical MEDC city from CBD to suburbs.	Describe 3 causes of traffic congestion in Rio	State 5 reasons birth rates are high in some LEDCs.
State 5 reasons death rates are low in MEDCs.	Describe how building density varies from CBD to suburbs.	State 3 solutions to traffic congestion in Rio.

1. Make sure there is somewhere with a table that is quiet. It can be challenging for some to focus on revision if they are alone in a room. You may need to supervise study at first to embed good habits.
2. Use the monthly planners on the website to add in dates of assessments/ exams.
3. Then use a week planner to first block off existing commitments then add in 30 min revision sessions.
4. You can only concentrate effectively for short bursts. Around 30 minutes maximum then a short break.
5. It is very challenging to revise effectively from classwork/ jotters. Some subjects (e.g. Geography) provide topic summaries and revision resources on Google classroom or paper. For other subjects BBC Bitesize is a good place to start or there are numerous subject revision guides available. (Ensure it is SQA subject version)
6. Find out which topics are in the exam. Again, ask class teachers, check Google Classroom/ BBC Bitesize or a revision guide. Use these to create a list of each topic for each subject – this is what needs to be revised.
7. Decide which of the evidence-based revision strategies you want to use. A brain dump or set of questions can be powerful strategies to start to assess how much is already known and what needs to be gone over.
8. Focus revision on what you are unsure of – it is easier to go over the already familiar. There is a need to focus on the unfamiliar.
9. You need to test, test and re-test to check for understanding. Remember the key ideas are repeatedly go back to the same information at intervals to interrupt the forgetting.
10. When confident with content move on to timed past paper questions from the SQA website. use the mark schemes to check answers.

Revising in this way is difficult and challenging (which is discouraging compared to highlighting and copying) but this is exactly why it sticks and works! (desirable difficulties). Remember the harder you work the luckier you get.

#### Motivation

It can be very challenging trying to motivate young people to revise with all the digital distractions that exist now. Some are highly intrinsically motivated whereas other require more guidance/ encouragement. It should be made clear that no one is going to just give a young person qualifications - they need to be earned (considerable time and effort is required). N5/ H/ AH are the gold standard of Scottish education so we should expect to have to work for them. Try to start with the why? Emphasising that the more qualifications they have the more options it will give them can help. At the end of the day no one else can do the revision it has to come from them BUT as a parent/ carer you need to put guidelines/ expectations/ rules in place to encourage them. You are in charge – remove the phone when they should be revising!

#### Volume of revision – DEPENDENT ON AGE/STAGE

Every individual is different but at this stage aiming for 2 or 3 30 min slots in an evening would be a good start.

Key resources: A great place to start is the book Powerful Teaching – A guide for parents by Patrice M. Bain. For links to the SQA and BBC Bitesize website and more info please use the KHS website detailed on the previous page.