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INSPIRING BEYOND MEASURE



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Supporting Your Child's Revision



Why 'Fluency' Matters

- Fluency means recalling knowledge automatically.
- The more fluent students are, the more space they have in working memory to think and problem-solve.
- Revision isn't about cramming — it's about retrieving knowledge little and often – what we call 'effortful recall'.
- Fluency in recall will bring confidence, independence and stronger exam outcomes for our students .

Our Aim

- We want to make revision routine, consistent, and effective for our students.
- In school we do daily retrieval practice in lessons, weekly quizzes in tutor time and 100 question cumulative knowledge tests half termly in every option subject.
- Every student has been issued with a folder of knowledge organisers, tailored to their option choices.
- The knowledge organisers are based on the core knowledge that students need to be able to recall
- They are set out as a series of questions and answers to make self quizzing easy to do
- *Parents are key partners in making this work.*

Successful Learning Takes Place Over Time

It's rare for anyone to be completely comfortable with something they learn for the first time. This could be a new piece of music, dance move, language or chemistry. We *all* have to practice. In most instances, the aim is to be at your optimum on the day it matters, e.g. the performance, race or exam. Everything leading up to this point is part of the *process* of improving. It's about the long-term rather than the short-term, which also means there are no quick fixes. During this period, it's okay to make mistakes; it's okay to feel frustrated.

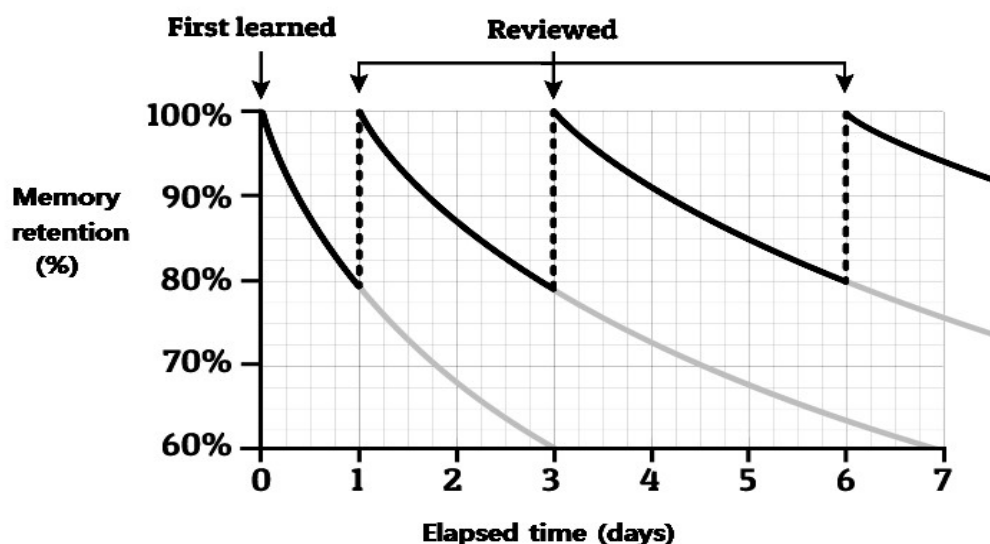
Knowledge and understanding over time



Ebbinghaus developed the idea of the 'forgetting curve'. When we first learn something, if we do not return to it, we forget it. Ebbinghaus' work showed that spacing out study halved the time needed to learn a list of syllables correctly.

Space out your learning on a subject

Spacing out your learning over time is far more effective than last-minute cramming. This is based on research into how we forget and how we remember. The speed at which we forget something will depend on many factors such as the difficulty of the material, how meaningful it was to us, how we learned it and how frequently we relearn or remember it. The last factor tells us that when we learn something for the first time, we need to review it quickly afterwards. The more times we force ourselves to remember something, the longer the gap needed between reviews, which the diagram below illustrates nicely.



Don't study one topic at a time – mix it up!

It's better to mix up your learning within a subject instead of focussing solely on one topic at a time and block studying that. So, rather than studying AAA BBB CCC (each letter represents a topic within a subject), there is a significant benefit in approaching it as, say, ABC BCA CAB because you're more likely to see connections between topics, which will help with your understanding and fluency.

Revision strategies

Research has shown that every time you bring a memory to mind, you strengthen it. And the more challenging you make this retrieval, the greater the benefit. Self-testing improves the recall of information, transfer of knowledge and making inferences between information. Equally, there are many indirect effects, such as a greater appreciation of what you do and don't know, which helps you plan your next steps.

Self Quizzing using **LOOK-COVER-WRITE-CHECK**

1. Look at a short section of your Knowledge Organiser for a designated time e.g. 2 mins
2. Cover up the answers (there is a card provided for this in the knowledge organiser folder)
3. Write down the answers from memory
4. Check for accuracy and correct mistakes in a different colour (in school we use a green pen for example)
5. Repeat until you can recall **everything** accurately.

Flashcards

Flashcards have the potential to be a powerful learning aid. However, how successful this is will depend on the thought you put into making them in the first place and then how they're used. It's very important to remember that they're for testing, not summarising.

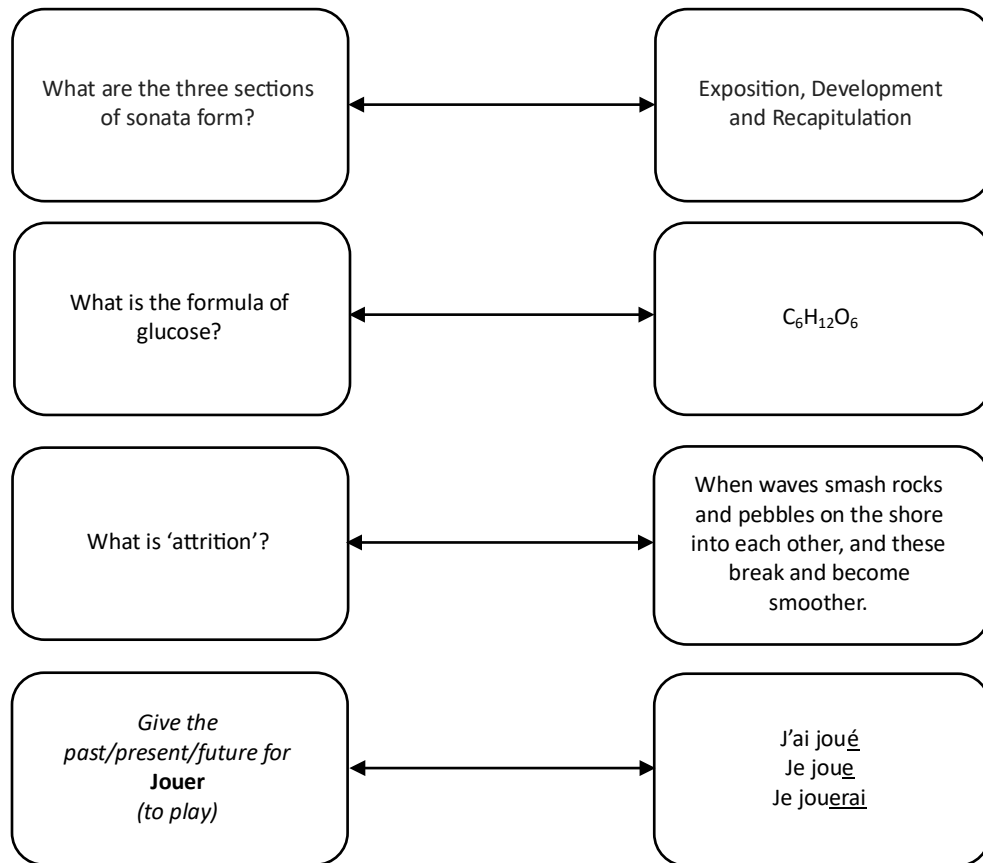
Making good flashcards

- One side of the flashcard should be a single question and its answer on the reverse.
- Select the essential information to go on each flashcard. You can use class notes, booklets or knowledge organisers to help you choose.
- Break complex concepts down so that they cover multiple cards.
- Use annotated diagrams to illustrate answers where appropriate.

Using flashcards

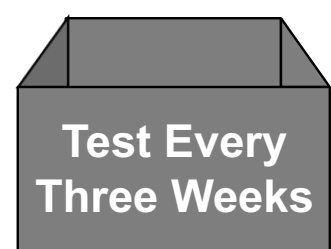
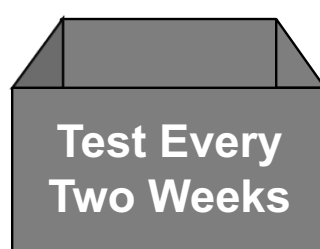
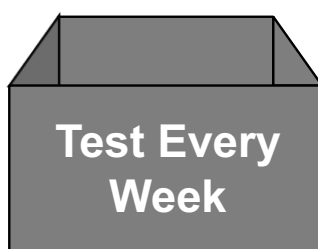
Use your flashcards to test yourself. Say your answer out loud and not just in your head. You must be fully committed to your response. Even better would be to write your answer out as you would have to do in an exam.

Use them both ways – look at the answers and say what the question is.

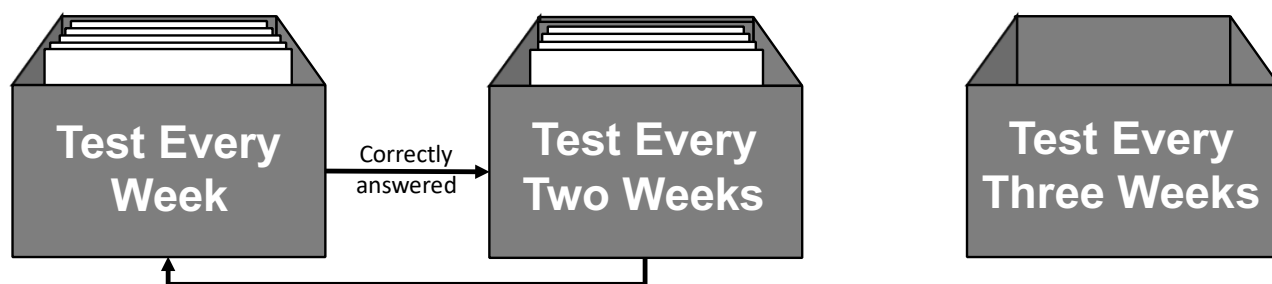


Flashcards – The Leitner System

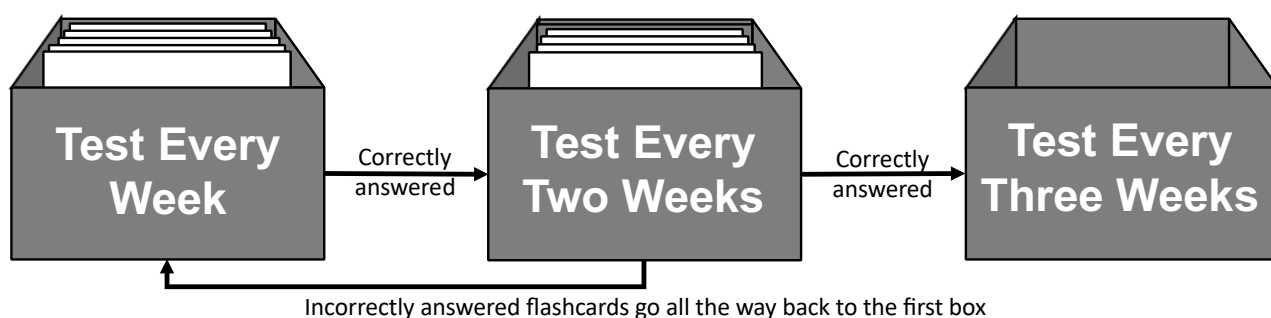
This is an excellent method of using flashcards over a sustained period of time and requires commitment. However, there can be a great return to your effort as the Leitner system allows you to see clearly that your learning is improving. Begin by finding three boxes that your flashcards can go in. Each box will determine the frequency you test yourself on the flashcards it contains (note: you decide how many boxes and the frequency you look at them). For example:



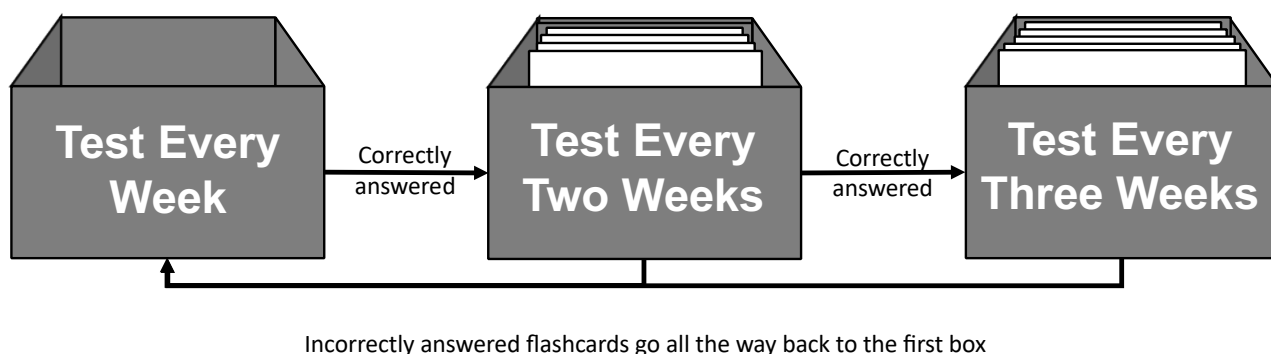
Place ALL your flashcards in the first box and test yourself. If you get a card right, move it to the second box. If you get it wrong, it remains in the first.



You test yourself on the card in the first box the following week and the second in two weeks. Whenever you get a card right, you move it to the next box. However, if you get it wrong, you move it back to the first book. You must be strict about this.



Continue testing yourself according to each box's frequency.



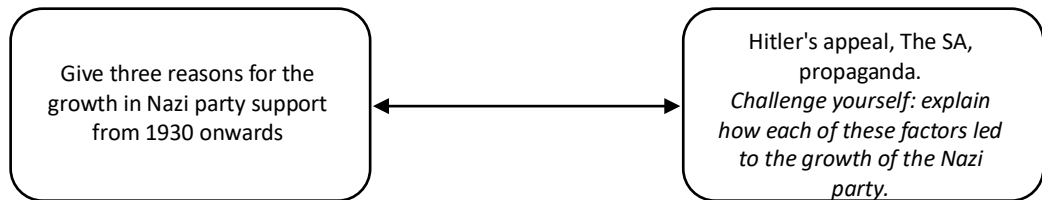
When you start, all the cards are in the first box. Hopefully, these will move to the later boxes as you use the system, measuring your progress.

The underlying idea is that the better your mastery of the core knowledge, the less frequent the practice. However, if it's important to retain, it will never disappear entirely from your set of practice boxes.

Taking things further: making meaning with flashcards

Ask yourself questions about individual cards. Then, once you can remember the information on the back associated with the prompt on the front, raise questions such as, 'What else is this related to?', 'Why is this important?' and 'How would I apply this information?'

Group
cards
together
in

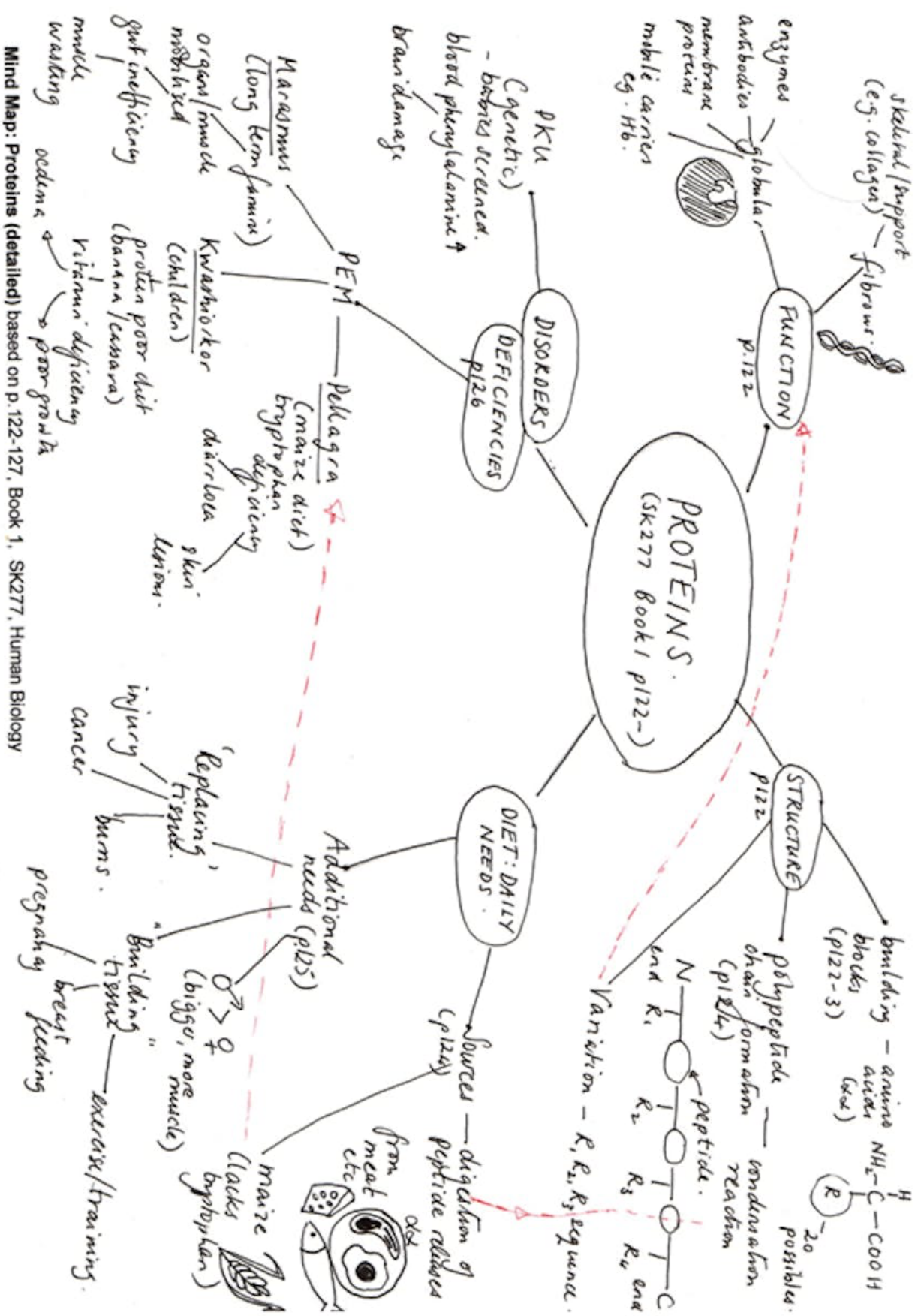


themes or colour code them. Taking this additional step forces you to ask yourself, 'Which cards have something in common with others?'. This also serves as a form of chunking, which helps you remember information together instead of separately.

Create a mind map with the cards. Explain all the connections you see between individual cards and between groups of cards. A related strategy is to use yarn or string to connect cards.

Mind Mapping

Mind mapping is a brilliant way of organising and learning information. It helps you break down complex information, memorise it, and see the connections between different ideas. It can also be an effective way of testing what you know about a topic after you have used the other revision strategies outlined in this guide. Start with a topic title in the centre of a page. Then draw in subheadings at the end of each branch. Sub divide each sub heading with key facts. You can carry on this method of sub division to add in examples too. You can draw connections between the different branches or examples that you have noted. You may wish to use colour and simple diagrams to help you represent key points.



Mind Map: Proteins (detailed) based on p. 122-127, Book 1, SK277, Human Biology