

Revision Evolution



Learning how the brain works and how to optimise your revision!

Name:

Form:



Revision

What does the word revision mean? What does that look like in practice? What works? What doesn't? When are we taught about good revision practices? Is revision something we do just before exams?

At St. Bernard's, we are committed to developing revision as a practice that is taught and modelled consistently across the subjects you study, and not just before exams, but as a meaningful habit for effective learning.

In this booklet, we will look at all the revision methods below, why some are more effective than others, and give you a chance to practise.

Revision methods

Traditional Revision	Effective Revision
 Cramming before a test Re-reading notes Last minute interventions 	 Retrieval Spacing Dual Coding Interleaving Flashcards Mind Maps Blurting Deliberate practice

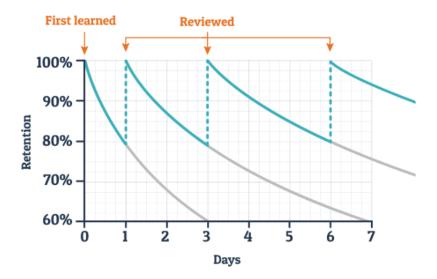


Why do we revise?

Revision is a practice that students are told to 'do'. But why? Revision is a word whose origins mean 'to re-examine' or 'to see again'. As tests and exams have become more central to academic success, revision has become more important to students and their teachers!

However, if we want to revise properly, we must already have learned and stored the correct knowledge in our memory.

Memory is tricky though, when we acquire a piece of knowledge, it won't always be available when we need it later. An old but important study shows how quickly we forget:



This shows us how important it is to retrieve our knowledge, revisiting it regularly. At form time 'Revision Revolution' sessions in school.

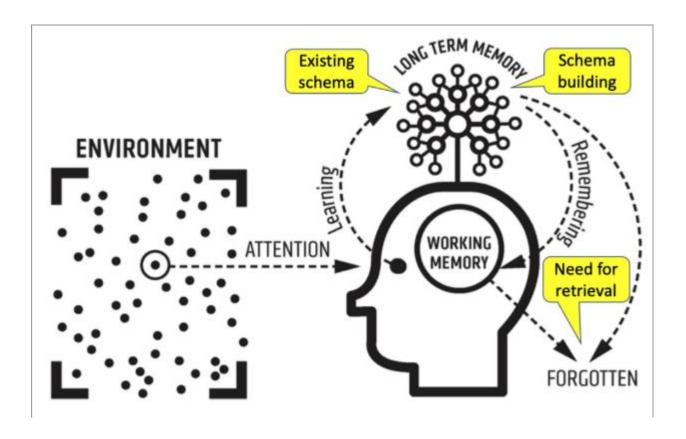
The best idea is to space your revision, so you don't go over subjects in 'blocks'.

It is a good idea to plan your revision in two-week sections: Week 1 & 2: English Literature poetry. Week 3 & 4: Maths Paper 1 etc.

Your Revision Revolution sessions in school do not replace home revision. You will be expected to learn how to revise effectively in school and apply the methods at home!



Memory



Working memory is very small: This means we forget new information quickly.

Long term memory is very large: This means that we can remember things from years and years ago.

Transfer between working memory and long-term memory is key for learning.

This can be facilitated through several strategies such as retrieval practice.

Unfortunately, cognitive load can hinder this transfer. During revision, this overload can be reduced by avoiding distractions such as mobile phones, screens etc.



Highlighting

Research shows that highlighting is often mis-used and therefore it can be one of the least effective methods of revision.

When we highlight, we are usually highlighting 'key information' in the hope it stays in our memory. However, since we are simply isolating lots of phrases and sentences, or simply re-reading texts, this information is unlikely to be retained successfully.

- × Highlight huge chunks of information
- × Highlight and do nothing with the information
- × Highlight without understanding
- ✓ Highlighters can be a useful tool in categorising information to make connections and links on self-testing resources such as flash cards
- ✓ Highlighters can be useful in identifying, on practice answers, where you have met assessment criteria and where you need further learning/practice.

Try now:

- 1. Create a set of flash cards to revise a particular topic and use a highlighter to make links between those cards. Explain those links to a friend.
- 2. Highlight a practice answer from a past paper where it meets your assessment criteria. Identify where you have not met the criteria and create a flash card to list the knowledge you need to develop. Have another go once you have learned what you need and again, highlight where you have met the assessment criteria.



Past Papers

It is important to complete past papers as the experience will help you manage timing and develop an awareness of the expectations of the exam. However, the most important thing is not completing the paper itself, but what you do with the answers.

You might self-mark or ask a teacher to mark it for you, but this does not necessarily secure progress. Simply knowing the score will not enable you to make progress.

A more effective method is to complete the past paper, use the mark scheme to help you self – assess and then prepare a checklist of revision strategies to help you address the areas requiring improvement. Then you need to attempt the question, section or paper again to see if your revision methods have worked.

- × Complete past papers with no follow up
- × Complete past papers without knowing the success criteria
- ✓ Complete the past paper only when you know how it is assessed and what the success criteria is.
- ✓ Completing the past paper is only the small part of the revision process. You need to follow this up with self-assessment (where you can use your highlighters to identify where you are meeting the assessment criteria). You should revise the areas needing improvement and test again.

Try now:

- 1. Select a question paper and read the assessment criteria. Highlight what you think are the key requirements. Summarise this information on a flash card. Practice with the flashcard until you are confident you know what is required. Check with your teacher. Highlight your answer using the assessment criteria to see where you should improve your revision.
- 2. Read a sample answer. Highlight to see where the student has or has not met the assessment criteria. Mark it using the assessment criteria. Have a go yourself and compare. List information or knowledge you need to improve.



Flash Cards - Leitner method

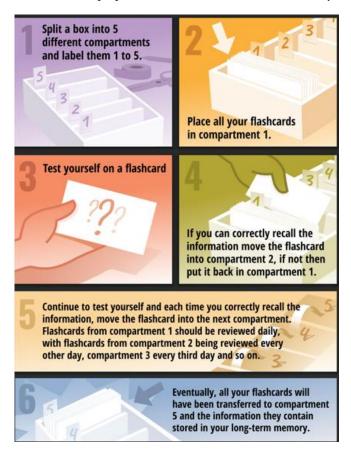
Flash cards remain one of the most popular methods of revision. Many students just don't use them in the best way.

The Leitner method is one way of more thoughtfully working your way through flash cards so that you focus on gaps in your knowledge.

You will need:

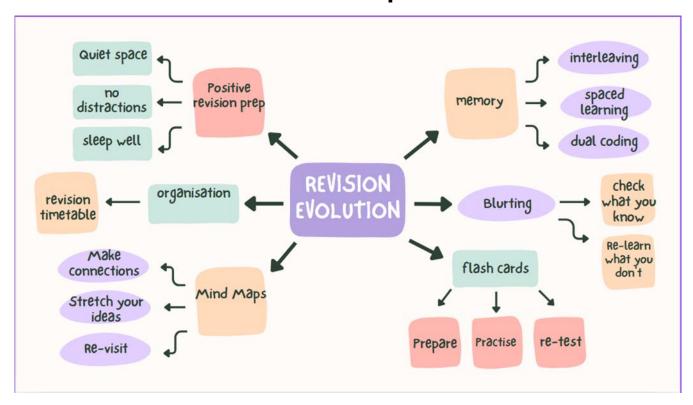
- 1. A topic to revise
- 2. A series of flash cards with a key word/question/character/problem etc on one side, and the answer on the other.
- 3. You will need three envelopes or boxes labelled 'everyday' 'Tuesday and Thursday' and 'Friday'.

Once you have this ready, you will need to follow the process below!





Mind Maps



Mind maps are visual diagrams that represent concepts, thoughts, or tasks around a central subject. They use branches to show connections.

- 1. Define your central topic and create an image to represent that topic.
- 2. Create your first branches; these are the main ideas related to your central topic.
- 3. From each of these first branches, grow your ideas further with additional information, facts, quotations.
- 4. Apply images to your mind map to support with dual coding.
- 5. Apply a colour scheme to your mind map to categorise information.
- 6. Create links between your branches to extend your thinking.
- 7. Interact with the mind map: use it to check your thinking or when checking tests or flash cards.
- 8. Compare your mind maps to others. See how their thinking can help unlock yours.

9.



Dual Coding

Dual Coding is a research-backed learning strategy that enhances student understanding by combining verbal and visual information. By presenting concepts in both words and images, students process information through two <u>cognitive</u> <u>channels</u> - verbal and non-verbal - improving their ability to retain and recall key ideas.

Cognitive psychologists have identified six highly effective learning strategies for improving long-term memory, and Dual Coding is one of them. This approach is based on the idea that when students see and hear information simultaneously, they have two ways to encode knowledge, making it easier to retrieve later.



1. 1. Think of an idea, theme, process, event, character etc and then find an image you think best represents this idea.

My example is a ruler, which I have chosen to represent Mr Birling.

2. Explain the connection between the image and the idea.

My example is a ruler that represents Mr Birling because he is a character who measures others against himself, measures profit and social status and is unbending.

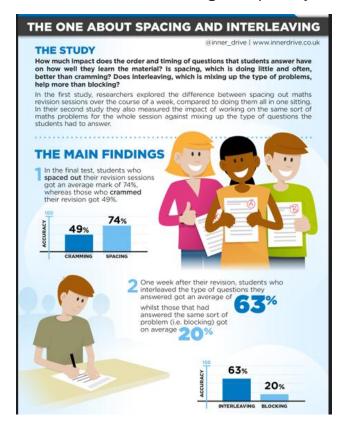
- 3. Reverse the process: now remove the text and only look at the image. Recall how the image represents the idea.
- 4. Apply this. Add images or symbols to your mind maps, flash cards etc so you can more easily visually recall the idea/information.



Interleaving and Spaced Learning

Interleaving: this is when you switch between topics in your revision instead of proceeding from one topic to another in the order it was taught. This process allows you to think harder about links when you revise. For example, in Geography, you might choose to revise urban issues alongside challenges with physical landscapes in the UK.

Spaced Learning: This is when you spread your revision for a particular subject over a specific timeframe – usually over a long period of time. The technique encourages students to review, practise and quiz themselves on the same topics on multiple occasions. This allows the neurons in their brains to form connections between the ideas and concepts over time which strengthens their knowledge and recall ability. This means you need to revisit material and knowledge frequently.



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