



COWLEY
INTERNATIONAL COLLEGE

What does good study look like?

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PE & Science Teacher
Assistant Principal - Staff Development & CPD

John Dunlosky – Study Skills

| | | | | |
|---|---------------------------------|---|---------------------------------------|---|
| Studying different topics during revision (Interleaved Practice) | Highlighting/underlining | Explaining why information is true (Elaboration) | Self-explanation | Summarising information (Re-writing notes) |
| Practice tests/quizzing | Keyword mnemonics | Spacing learning over time (not cramming) | Imagining revision information | Re-reading notes |

Re-reading



Why don't they work?

Re-reading, re-writing and highlighting are easy tasks.

They take time but can be done in autopilot.

Re-writing



“The Illusion of Knowledge”

Familiarity IS NOT Understanding

Highlighting



“Memory is the residue of thought”

Daniel Willingham (Cognitive Scientist)

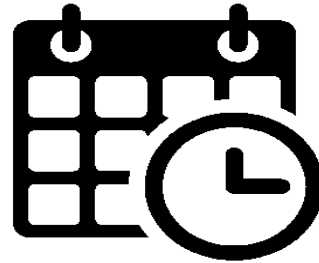
What strategies should you use?

Retrieval



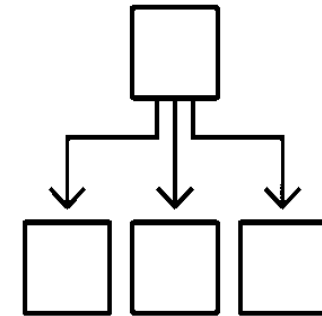
Remembering information from memory boosts the strength of the memory

Spacing



Short study sessions spread out over time to regularly interrupt forgetting (not cramming)

Elaboration



Explaining the why & how to think deeply & create strong links between things you know

Retrieval Practice – The testing effect

Students retrieve previously taught information from the long term memory.

This might include:

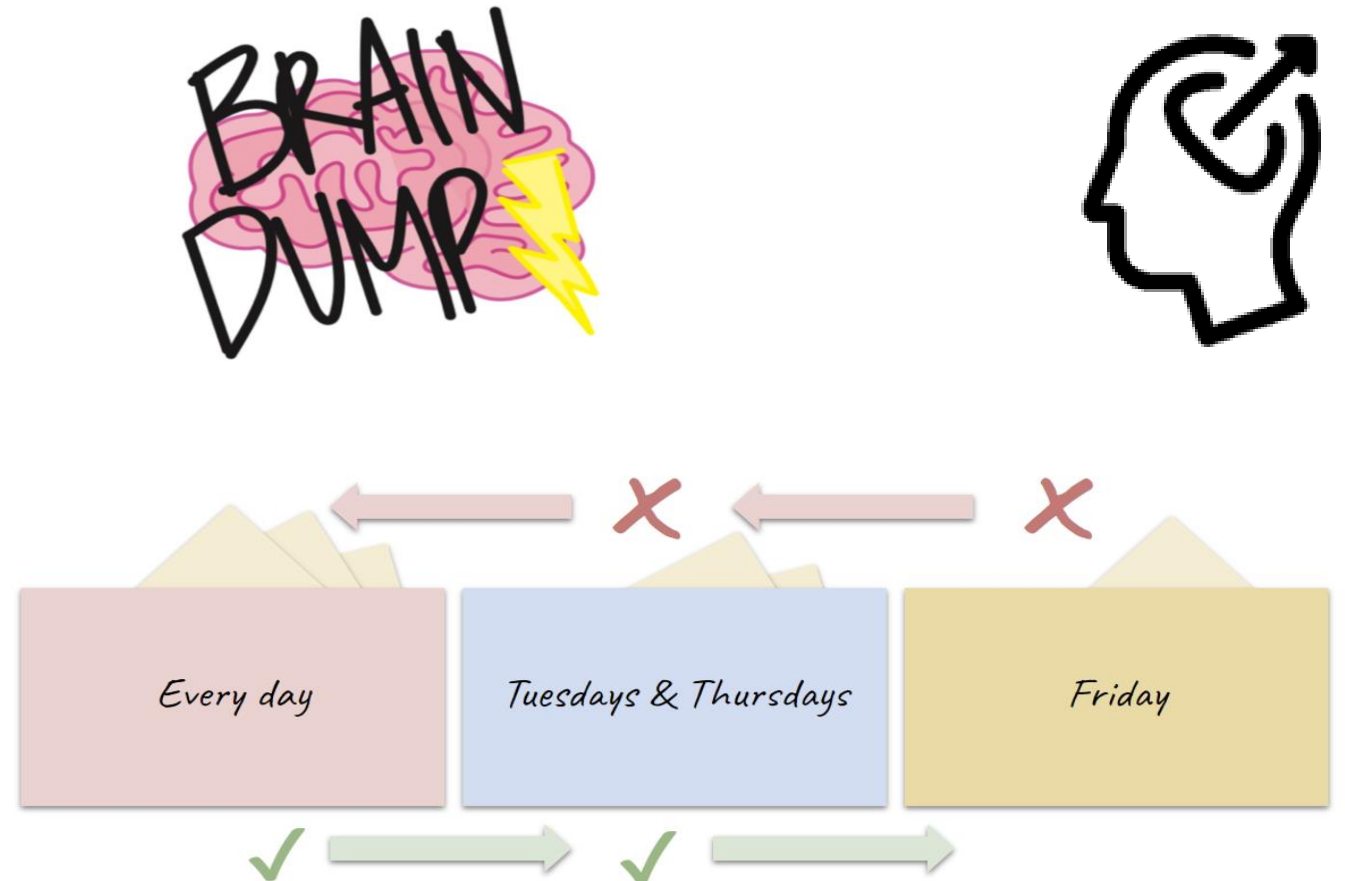
- Quizzes (GCSE Pod / Educake)
- Brain dump
- Flashcards
- Completing exam past papers

Rules:

No notes/books

Time to struggle

Check & correct answers



[Leitner system - https://youtu.be/d9u3KxGCio8](https://youtu.be/d9u3KxGCio8)

What techniques will help the most?

1. Look – Cover – Write – Check
2. Key Question Quizzing
3. Brain Dumps
4. Application / Exam Questions

These techniques are supported by research



Students achieved at least **2 grades** higher using these techniques

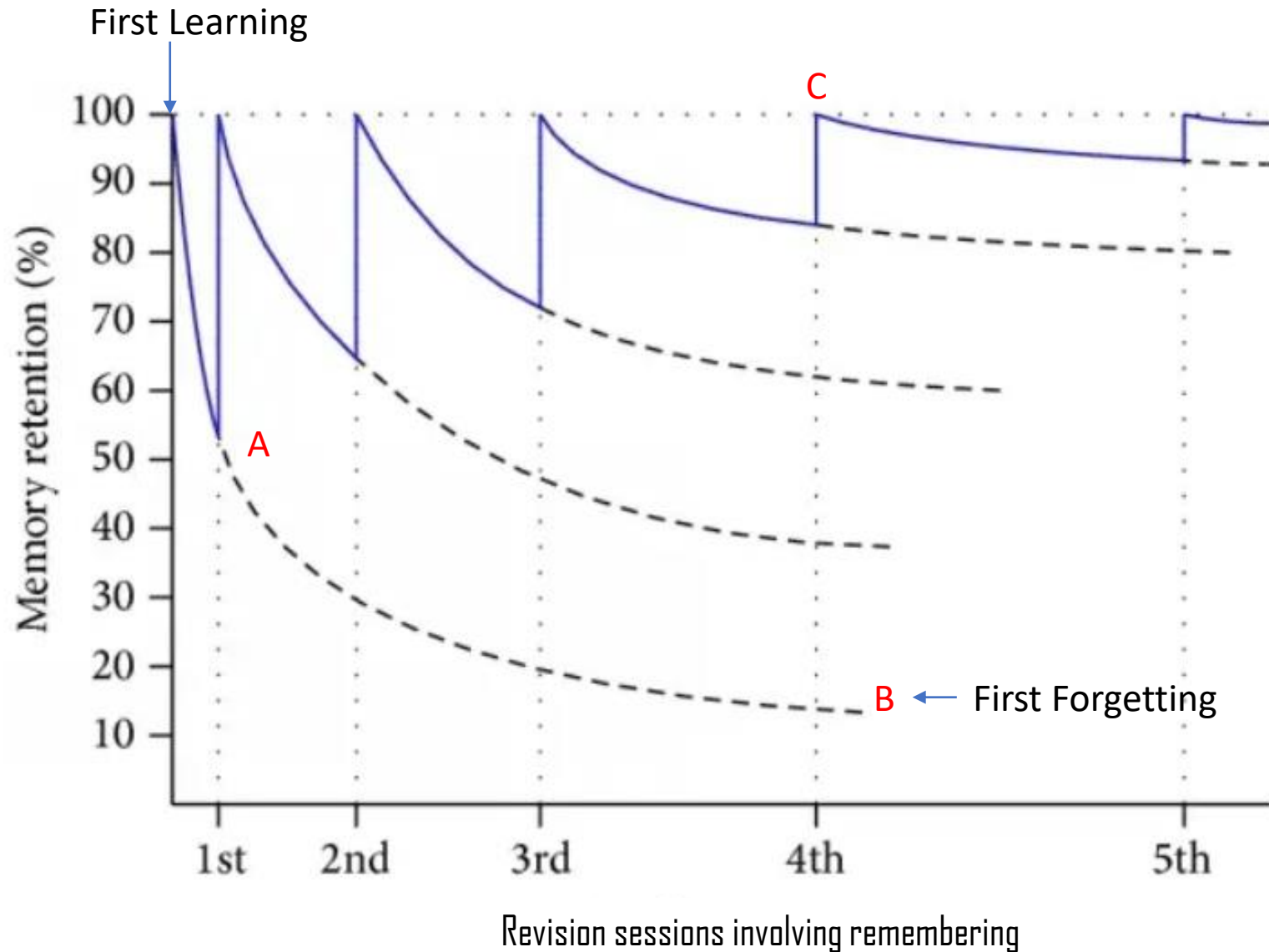
These worked for former Cowley students = They will work for you

How do you choose which technique to use?

The one that offers the right amount of challenge for the specific topic (particle model, photosynthesis etc). This will depend on:

1. **Repetition** – How many times have you covered the topic e.g. during classwork, homework, revision for assessments etc.
2. **Understanding** – How successful were you when the topic was taught? Did you improve the amount of questions you got right in class? Did you do well on the topic during assessments?
3. **Time** – How long ago did you last cover the topic in class or in your independent revision?

| Level of challenge | Revision technique | Choose this technique if: |
|--------------------|---|--|
| 1 | Look – Cover – write – check (LCWC) | <ul style="list-style-type: none"> • You haven't studied this topic for a long time and/ or you don't have a good understanding of it. • You usually re-read or re-write information for revision and would like to make your revision more effective. |
| 2 | Key Question Quizzing - Written | <ul style="list-style-type: none"> • You have studied this topic recently and / or you have some understanding of the topic. • You are not sure which revision technique to choose. • You have recently used LCWC for this topic. |
| | Key Question Quizzing – Verbal Flashcards | <ul style="list-style-type: none"> • As above • You would like a technique that builds in the correct spacing needed to concentrate on your weaker areas more often. |
| 3 | Brain dumps | <ul style="list-style-type: none"> • You have studied the topics recently or regularly and you have a good understanding of it. • You have revised successfully using techniques 1 & 2. |
| 4 | Application / Exam Questions | <ul style="list-style-type: none"> • You have revised successfully using techniques 1-3 • You have a very good understanding of the topic. |



Person A

Understood all of the info when it was first taught. Has only studied it once but it was recently = Key Question Quizzing

Person B

Understood all of the info but only studied it once, and it was a while ago, so has forgotten most of the info = LCWC

Person C

Understood all the info. Has studied it several times, recently, with success = Brain dumps or Exam questions

Pick a topic to revise and use this information to help you decide which technique to use



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HEALTHY POSITIVE
ASPIRATIONAL CONTRIBUTOR

INDEPENDENT

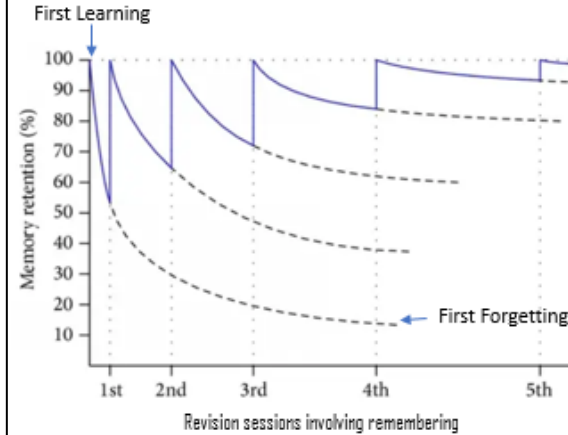
GOOD COMMUNICATOR CONSIDERATE

STUDY SKILLS

*One research informed guide
Two grades of improvement
Three of the most effective strategies
Four easy to use techniques*

Revision – A quick summary to what works

Forgetting is a natural part of the learning process:



The whole point of revising is to stop you forgetting what you first learnt by re-visiting the information.

If you revise effectively, you will interrupt the forgetting curve and the speed of subsequent forgetting will slow down (see graph).

However, your revision will only be effective at doing this if it makes you think **deeply** about the information and it happens **regularly**.



These are the most common revision strategies **BUT** they are the **LEAST EFFECTIVE**.

Forgetting will continue if you rely on these for your revision.

Use them only to support the most effective strategies below.

Why are they ineffective?

1. They can be done without think hard about the content
2. They give you an illusion of knowledge because you will be familiar with the content when you read it. This gives you the false confidence that you know more than you actually do.

What strategies should you use?

Retrieval



Remembering information from memory boosts the strength of the memory

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Short study sessions spread out over time to regularly interrupt forgetting (not cramming)

Elaboration



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Revising using these strategies = effective learning
(see the back of this guide for more info)

What techniques will help you to use these strategies ?

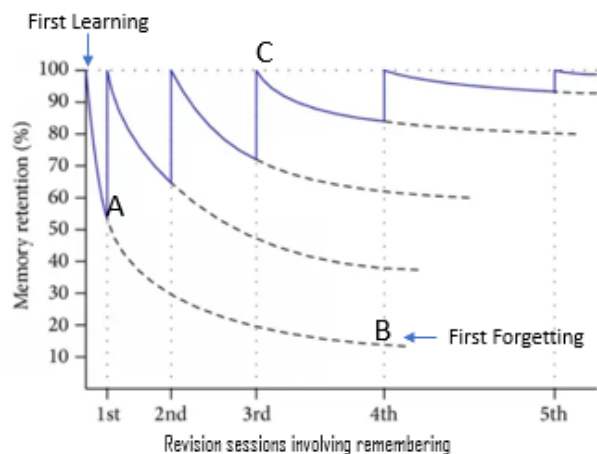
1. Look – Cover – Write – Check
2. Key Question Quizzing
3. Brain Dumps
4. Application / Exam Questions

How do I choose which technique to use?

It is important that you choose a revision technique that has the right amount of challenge for you and the specific topic (particle model, photosynthesis etc) you are revising. This will depend on:

1. **Repetition** – How many times have you covered the topic e.g. during classwork, homework, revision for assessments etc.
2. **Understanding** – How successful were you when the topic was taught? Did you improve the amount of questions you got right in class? Did you do well on the topic during assessments?
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Look – Cover – Write – Check

How to do it?

1. Look



- Read over a short section from the information (maximum of 3 sentences/definitions/facts)
- Highlight the key words in the section
- Re-read it out loud at least x 3
- Read the first half of the sentence/fact, look away and try to finish it off from memory
- Repeat for each sentence/fact x 3

2. Cover



- Turn it over / place a piece of paper over it and don't look
- Say the information out loud x 3

3. Write



- Write the topic heading
- Now remember the information without looking at the sheet and write it down
- If you struggle to remember, give yourself time to think deeply
- Your sentences do not need to be exactly the same but they need to make sense and contain all of the keywords you highlighted

4. Check



- Uncover the information sheet and compare it to what you written
- If your sentences make sense and you have used all of the keyword accurately then move on to the next 3 sentences/definitions/facts and repeat the process
- If you didn't remember it accurately, add improvements, cover it up and then repeat the process with the same information
- Spend a maximum of 30mins on one topic

What you need:

1. An information sheet on the topic you select to revise:
 - Knowledge organiser
 - Class notes
 - A page from a revision guide
2. Pen & paper/note pad
3. Distraction free environment

What if you need an extra challenge?

- Increase the amount of sentences/definitions/ facts you need to remember
- Once you have gone through all the information remembering 3 sentences/ definitions/ facts at a time, turn your writing over and try to remember everything again from the beginning

What if it is too difficult?

- Just try to remember 1 sentence/definition/fact at a time

What if you are short of time:

1. Do Look-Cover-Say-Check instead
- Make sure you say it out loud
- It is not as effective as writing it down

Top tips to supercharge this revision session:

1. Increase the chances of you remembering the information by using elaboration as you are reading and writing the information down (refer to the elaboration revision strategy to learn how to do this)
2. Apply the spacing revision strategy by coming back to this topic and revising it again in 1-3 days time (see the spacing technique to learn how to do this)
3. Use a more challenging technique next time such as flashcards or a brain dump
4. If needed, organise the information in a memory friendly way (see the guides to note taking & mind maps)

Pick a topic to revise and use this information to help you decide which technique to use

5 Benefits of Spaced Retrieval Practice

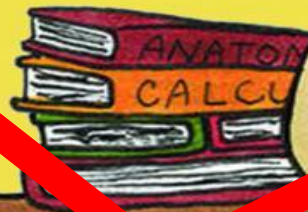
Benefit 1: The testing effect: Retrieval aids later retention

Benefit 2: Testing identifies gaps in knowledge

Benefit 3: Regular testing causes a reduction of exam anxiety
(one study = 72% less nervous)

Benefit 4: Testing can facilitate retrieval of material that was not tested

Benefit 5: Regular testing reduces the amount of cramming needed





Effective Study Tips



- 1. Use regular retrieval practice**
- 2. Use rewriting and highlighting to aid retrieval only**
- 3. Short study sessions spaced out over time**
- 4. Promote deep thinking by eliminating distractions**
- 5. Keep organised (use your planner & revision timetable)**

