

# Neuroscience Tips to Boost Your Grades

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Mr Brook –

Assistant Headteacher Learning and Teaching



# Which of these do you usually do when revising?

Follow a timetable

Read notes

Test yourself

Highlight textbook

Use visual elements

Write summaries



# Effective revision strategies

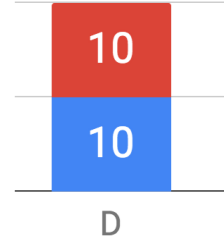
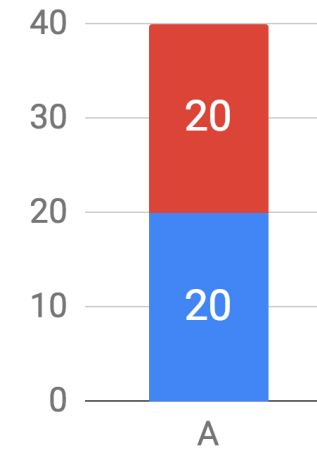


# #1

# Test yourself

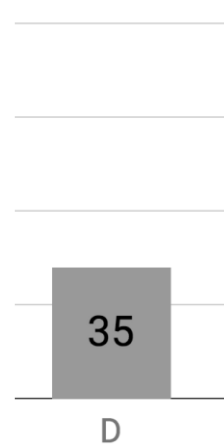
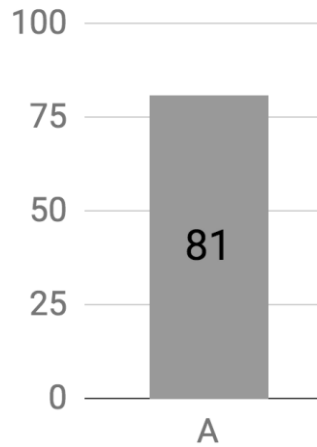


Hours doing  
each type of  
revision →

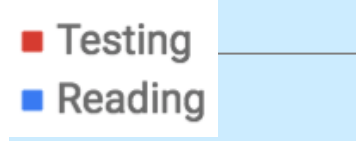
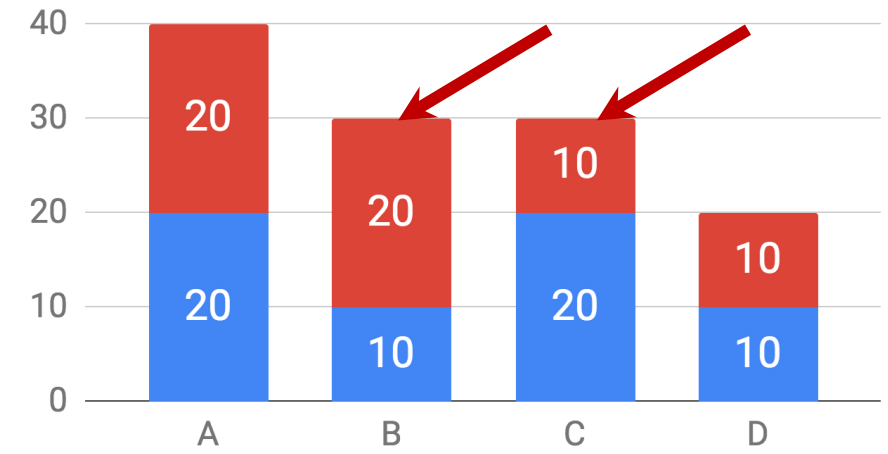


■ Testing  
■ Reading

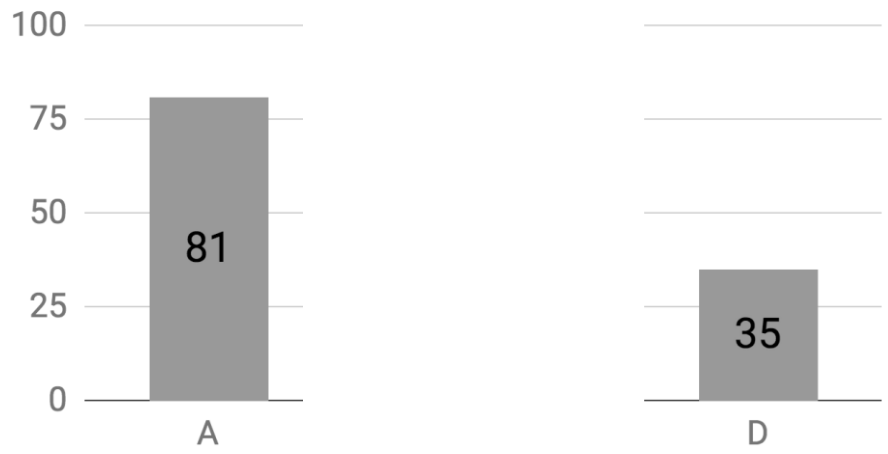
Exam scores →



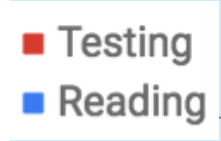
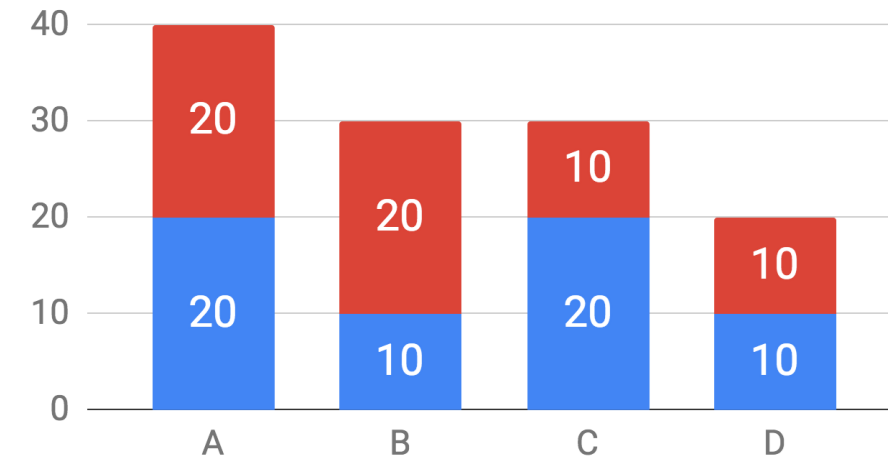
Hours doing  
each type of  
revision →



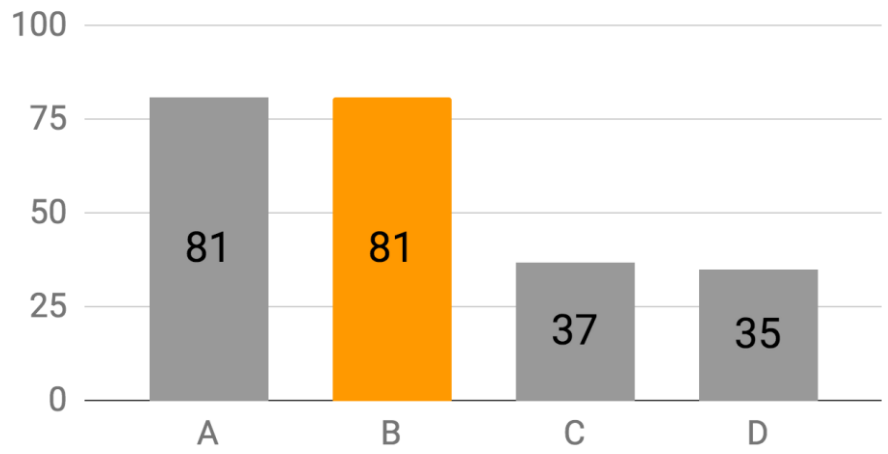
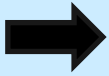
Exam scores →



Hours doing  
each type of  
revision

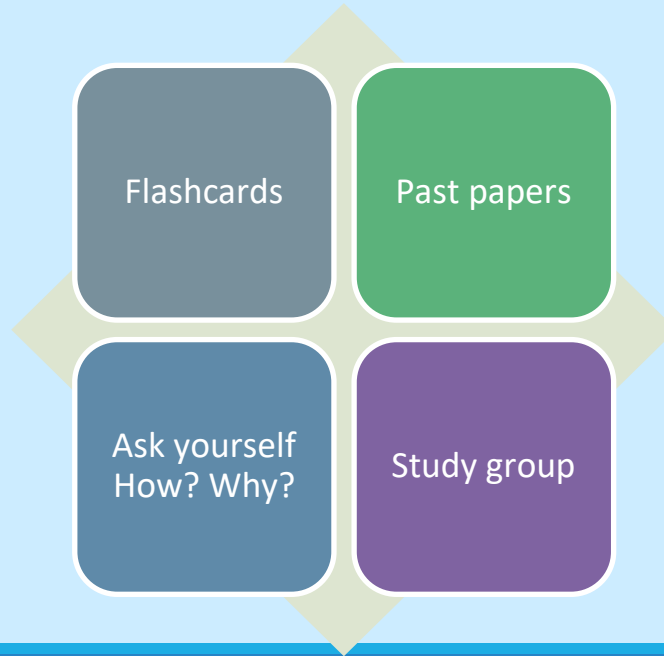


Exam scores



# #1 Test yourself

Actively bring information to mind instead of passively absorbing it





# #1 Test yourself

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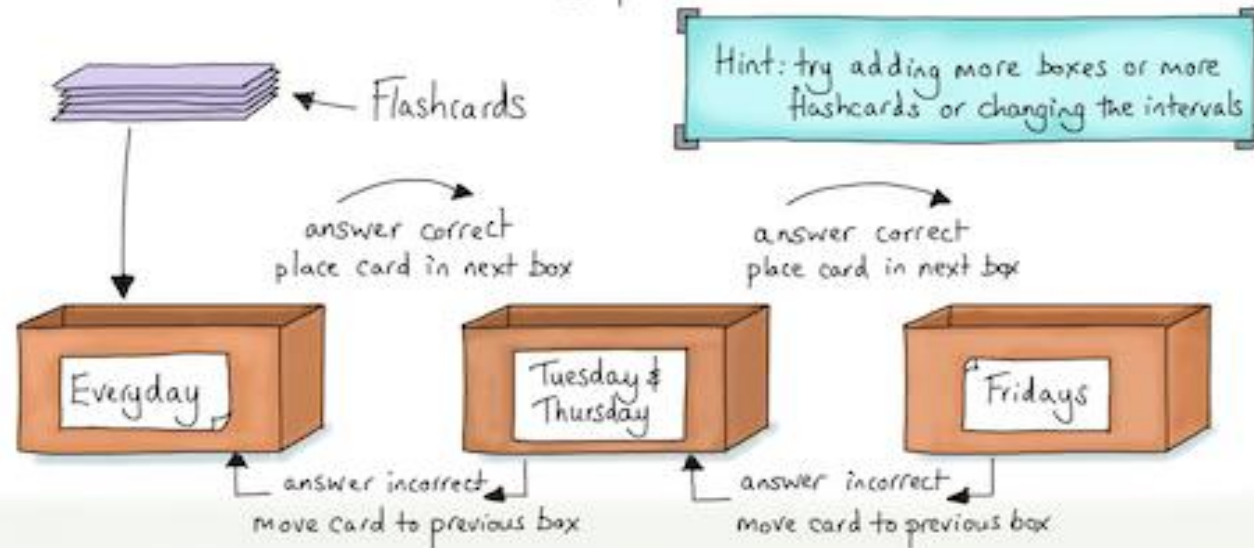
Some ways you can do this are:

**Using flashcards** - put a question on one side and the answer on the other side. Ask yourself the question and try to remember what's on the other side. Do this over and over.



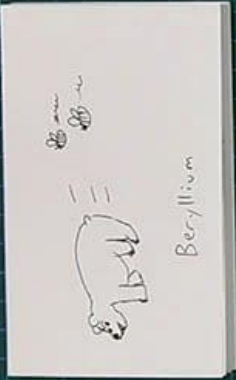
# LEITNER Flash card method

@ImpactWales



An effective use of flashcards to prompt & recall learning using spaced practice proposed by Leitner in the 1970s. It focuses on the proficiency of recall of the learner. Information which is easily recalled has a longer time lapse before the next recall opportunity.

Box 1



Every Day

Box 2



Every Other Day

Box 3



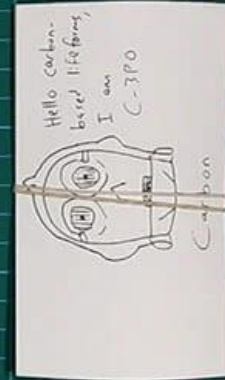
Once per week

Box 4



Once bi-weekly

Box 5 (retired)



Review Before Test



# #1 Test yourself

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Some ways you can do this are:

**Answer past papers** - by practicing past papers you are actively having to recall information to answer the questions.

*Revision Guides and the internet are two places you can find practice questions.*



# #1 Test yourself

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Some ways you can do this are:

**Study group** - talk about what you need to know with your friends and test each other on pieces of information.



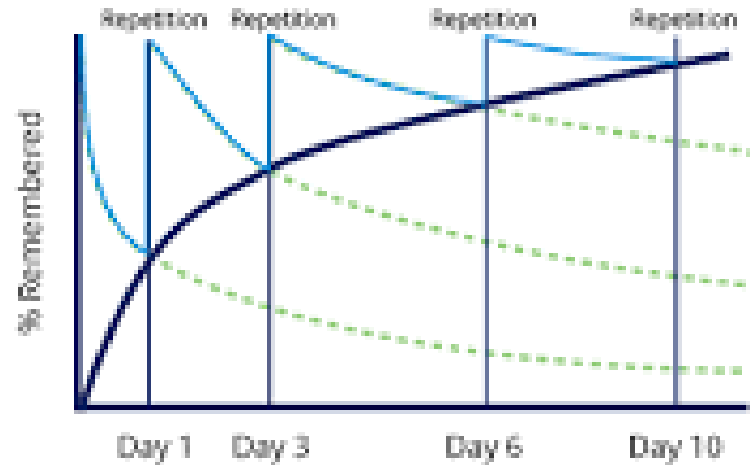
# #2

Follow a  
timetable and  
revisit  
learning  
regularly



# Spaced Learning and Repetition: How They Work and Why

## Spaced Repetition



# #2 Follow a revision timetable

Revise in small sessions spread out over time

Switch between topics every now and then

Do not cram

| A        | B  | C  |
|----------|----|----|
| 2h       | 7h |    |
| 2h       | 7h |    |
| 2h       | 7h |    |
|          | 4h |    |
| 2h       |    |    |
| 2h       |    |    |
| 4h       |    |    |
|          |    |    |
| 2h       |    |    |
| 2h       |    |    |
| 4h       |    | 2h |
|          |    | 7h |
| 2h       |    | 8h |
| 1h       |    | 8h |
| Marathon |    |    |





# Find it hard to concentrate on your own?

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Revising as a group can be very effective – both asking and answering questions provides you with a chance to practice formulating answers to possible questions.

Working with others can also help you stay on task – it is harder to get distracted if other people are looking at you for an answer!

Working on your own? Using a timer (eg Pomodoro Technique – [click here for a guide and link to a timer](#))

Study Buddy websites can also help with this (eg [StudyMD](#) or [Tan Yi](#)) can also help to develop the ability to focus on work for an extended period of time.

# Take regular study breaks

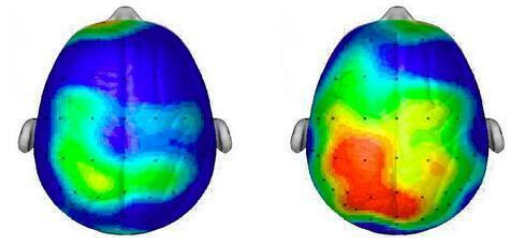
If you begin to feel stressed, tired and that no new information is entering your head, **take a break**.

There is no point forcing yourself to study for hours upon hours as this will not result in a positive outcome.

Taking regular study breaks and exercising is proven to be engaging your brain in studying and improve your exam performance in the long-run. You should aim to do something active, not just sit and doomscroll!

The diagram to the right shows that taking a break and doing something different can increase the activity in your brain when taking a test.

Composite of 20 student brains taking the same test



After sitting quietly

After 20 minute walk

Research/Scan compliments of Dr. Chuck Hillman University of Illinois

# STUDY TIMETABLE

 SCHOOL  
 FREE TIME

|           | MON     | TUE     | WED     | THU     | FRI     | SAT     | SUN |
|-----------|---------|---------|---------|---------|---------|---------|-----|
| 9-4       | SCHOOL  | SCHOOL  | SCHOOL  | SCHOOL  | SCHOOL  |         |     |
| 4-5       | CHEM    | BAND    | BAND    | ENGLISH | BAND    |         |     |
| 5-7       |         |         |         |         |         |         |     |
| 7-7:30    | BIOLOGY | TRUMPET | ENGLISH |         | MATHS   | HISTORY |     |
| 7:45-8:30 | GEO     | CHEM    | MUSIC   |         | ENGLISH | MUSIC   |     |
| 8:30-9    | HISTORY | MATHS   | BIOLOGY |         | BIOLOGY | MATHS   |     |
| 9-9:30    |         |         |         |         |         |         |     |



# #3

## Add visuals



# #3 Add visual elements

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This makes notes easier to understand and remember

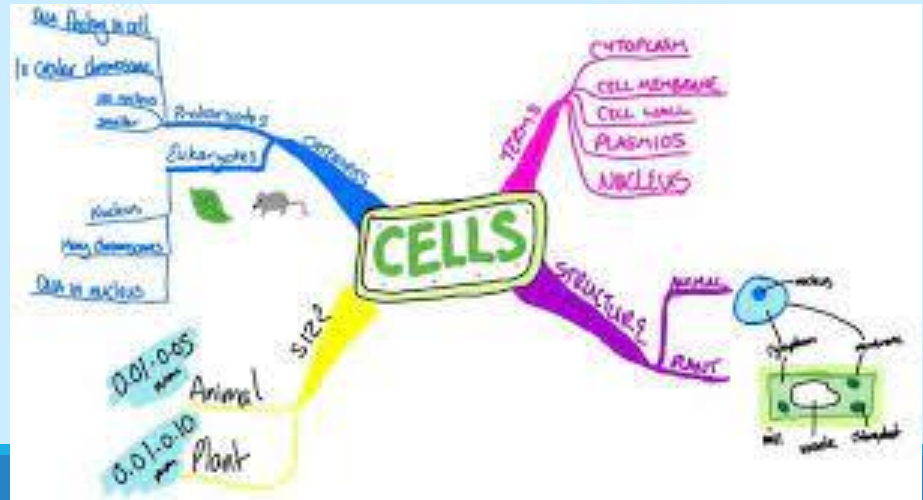


# Use Mind Maps to connect ideas

If you find it difficult to remember tons of new study notes, Mind Maps may be the key to improving your memory. The **theory behind mind mapping** explains that making associations by connecting ideas helps you to memorise information easier and quicker.

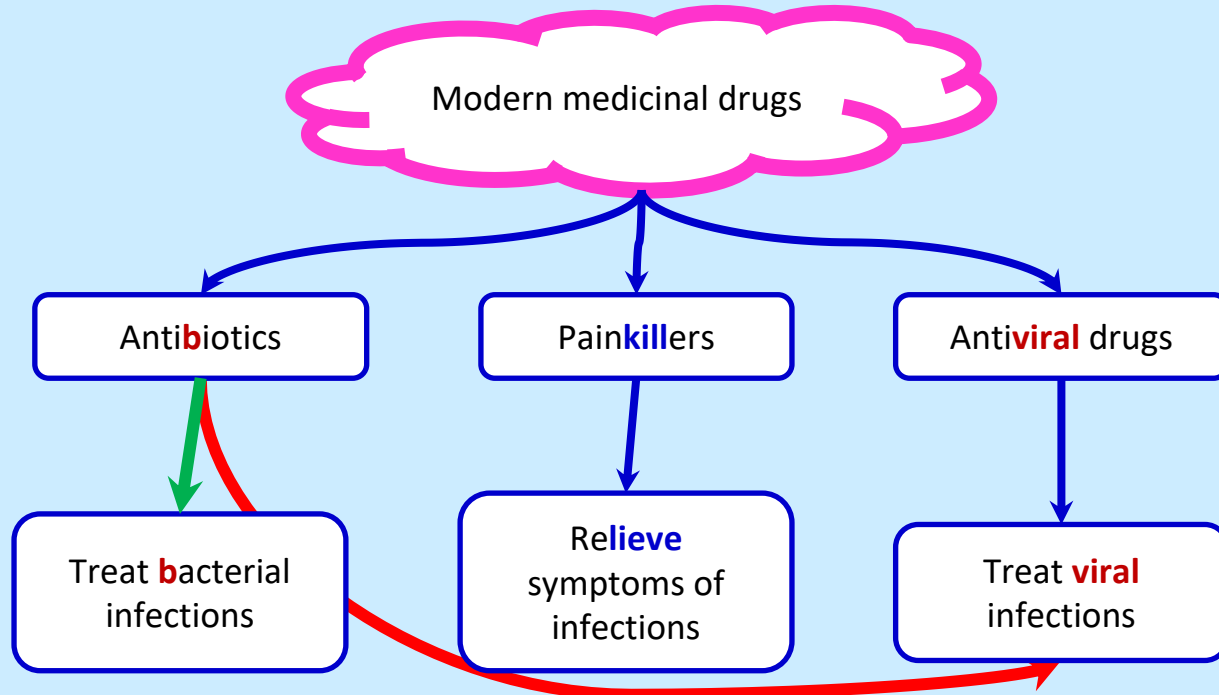
There are many free mindmap tools on the internet, **such as this one**. Otherwise you can create them yourself with A3 paper and coloured pens

This guide to mindmapping has many hints and examples to help you get started: -  
<https://felt-tip-pen.com/mind-mapping/>



Modern medicinal drugs can be divided into three types. The first type is antibiotics. The function of antibiotics is to treat bacterial infections. Antibiotics do not work against viral infections. The second type of modern drug is painkillers. These drugs work by relieving symptoms of infections. The last type of modern drug is antiviral drugs. Unlike antibiotics, these drugs treat viral infections.

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# Summary





# Summary

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## #1 - Test yourself

- Past papers, colleagues, flashcards,

## #2 - Follow a revision timetable and revisit learning regularly

- Do not cram, spread out, switch topics, see it often

## #3 - Add visual elements

- Timelines, diagrams, mindmaps, ...



# *Don't forget to adapt for Different GCSE Subjects...*

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It may seem obvious but many students try to study for different subjects using the same study methods. **Your GCSE revision should take account of the difference between your subjects** and the challenges they represent.

For example, **Flashcards** are an ideal study aid to help you prepare for MFL, PE, and Science where you need to remember key definitions. An **Online Quiz (eg Sparx)** is a great way to test your GCSE Maths skills, while you might benefit more from using **mindmaps** to study English.

Once you understand that your subjects need to be approached differently, there is no stopping you!

