



How to Study Guide 2024

Years 12 and 13



Know Yourself

Did you have a study programme last year? What worked for you? What didn't work for you?

Which of these study 'helpers' did you try last year?

plenty of sleep	fresh air	brain music
a quiet space	water	brain gym exercises
no distractions - phone on flight mode, TV off	materials readily available	exercise
a timer	comfortable posture	healthy snacks

Remember, study at a time of day that suits you. Talk about your information with others - parents, friends, anyone who'll listen! Sometimes, it can help to move around as you memorise information or use flip cards.

Three ways I can help improve my preparation for a study session:

1. _____
2. _____
3. _____

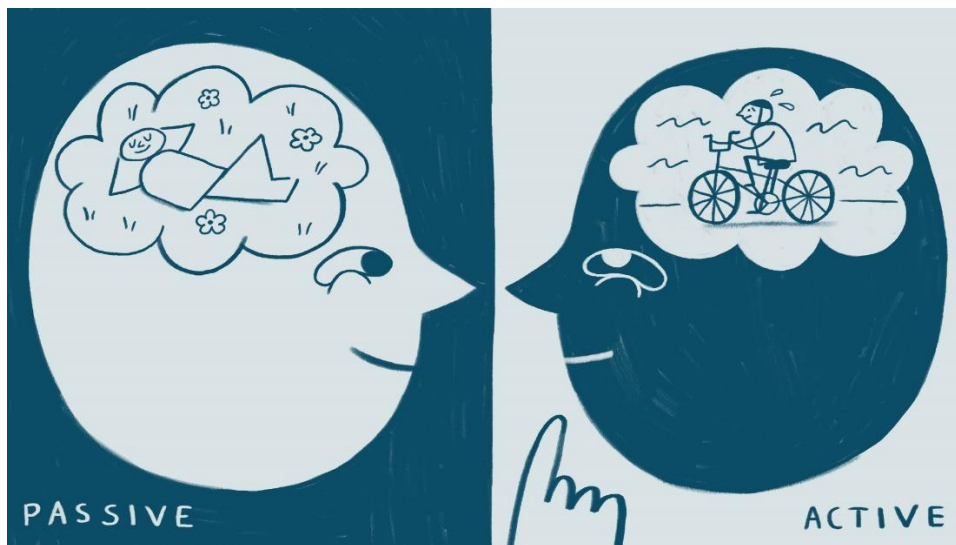
Study Should Be Active

What is passive learning?

Passive learning is when you receive information without interacting with it or applying it. An example might be listening to a teacher or podcast or reading a book, notes or essays.

This is one of the least useful ways of studying.

Were any of your study habits last year 'passive'?



Be an active learner and study actively

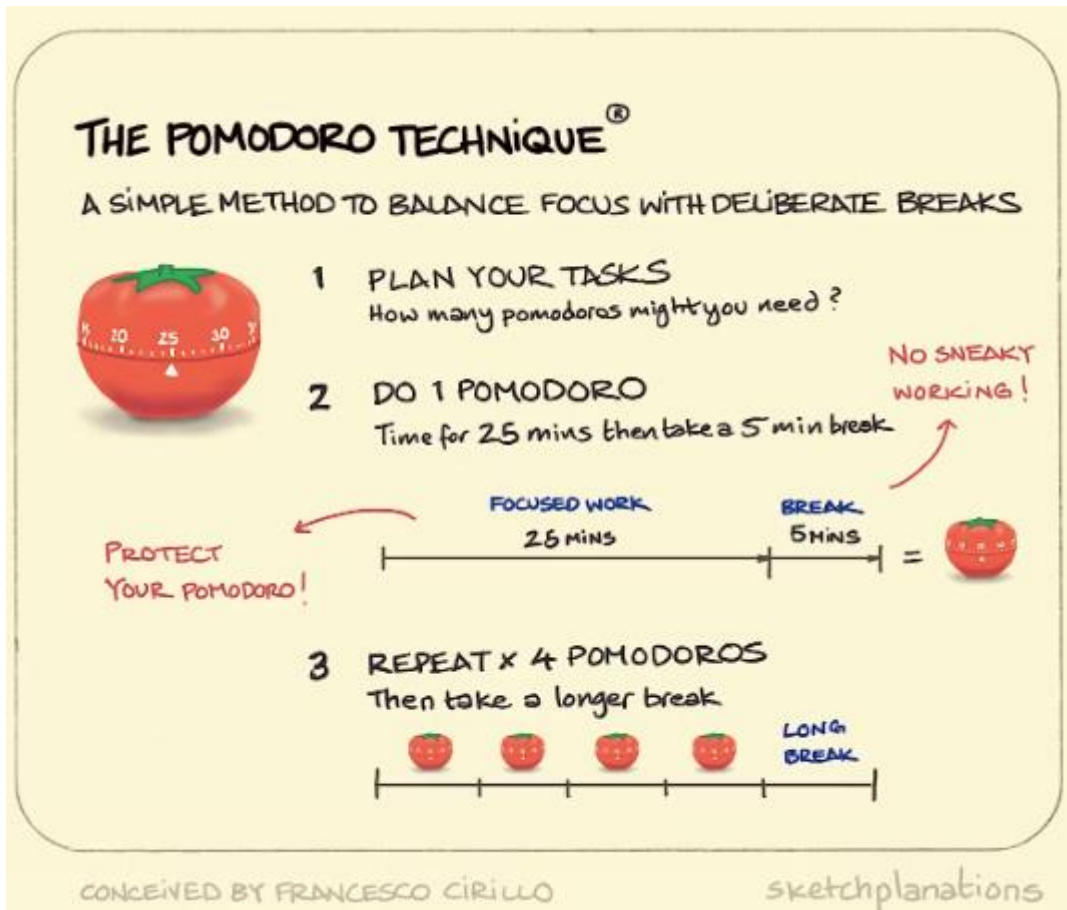
Active learning means engaging with the content in meaningful ways. Actually, doing something with those notes! There are ideas later in this booklet.

- Book time to meet with your classmates as a study group to discuss the content you are studying. You can do this at school or book a room in a public library or online.
- Make sure you don't just do the readings. Also do any associated activities. Create activities like flashcards or a Quizlet.
- Do practice tests and exams- www.NCEA.govt.nz to find previous exams
- Don't cram everything at the end. Study as you go in small increments over the weeks using the Pomodoro Technique.
- If you are overwhelmed talk to your classmates or your teacher for help.
- Make an effort to ask questions.
- Don't wait until exam time – starting now, read ahead before class
- Ask questions in class, or book in to see your teacher during study leave
- Rewrite or summarise the information in your own words.
- Present the information in a different way, e.g., as a mind map, song, through pictures or diagrams, or as flash cards. You can use these to study!
- Explain the information to someone else
- Apply the information to your real life
- Know the 'step-ups' between grading levels.

Let's Get Studying!

The Pomodoro Technique

Effective study is best broken into small blocks rather than longer ones. The Pomodoro Technique can help you to do this in a structured way. This technique is specifically recommended to students by the University of Auckland.



Break your study into 25 minute blocks of time - use a kitchen timer (or your phone in flight mode), then take a five-minute ACTIVE break. Maximum of four blocks in a session. If you are having a study day, then do four then have an hour break before returning to do another set.

When you are a few weeks out from exams, do one Pomodoro session per subject. When you are getting closer, arrange your study into Pomodoro Technique blocks of four.

The Spacing Effect and Interleaving

The Spacing Effect helps our brain undergoes a process known as memory consolidation. When we're learning, new information activates specific neural pathways in the brain. However, these connections are initially fragile and easily disrupted. When we review the same information after a short period of time, these pathways are reactivated, reinforcing the neural connections and making them stronger. This process, called **synaptic plasticity**, is believed to be a key mechanism underlying the Spacing Effect.

1. Improving long-term retention

2. Enhancing Retrieval Practice

3. Reducing cognitive load (reducing content so as not to become overwhelmed by it).

How to do it:

Step 1: Plan and prioritise

Map out what you need to know for each examined standard, then create a study schedule that incorporates regular spaced study sessions for each topic.

Identify the most critical concepts, pieces of information and skills that will require more frequent review and practice. These are the areas that need more focus and should be allocated more study time and spaced out more frequently throughout your revision schedule.

Step 2: Chunk information into Pomodoros

Break down the content into Pomodoro-sized chunks to study during each session to allow for focused, targeted learning, without becoming overwhelmed.

Chunking helps enhance memory capacity due to the nature of grouping concepts together. This allows for meaningful connections to be made, making information faster to recall from memory.

Step 3: Use Interleaving

Rather than focusing on a single concept for an extended period, you should alternate between different concepts during their study sessions to get the benefit from the Spacing Effect. This approach, known as Interleaving, improves your ability to identify patterns and make connections between concepts.

By challenging your brain to switch gears and adapt to different subjects, you will develop a more comprehensive understanding of the material.

<https://www.innerdrive.co.uk/blog/the-spacing-effect/>

Make a Study Plan/Schedule

A well-planned study schedule should be detailed, realistic, flexible, and varied. Good time management is an important skill to learn.

- Create or purchase a wall chart of other study planner for the time between now and your last exam. Colour coding this can be really helpful.
- Prioritise tasks that are urgent (internals)
- Do you know activities and techniques to help you study?
- Chunk large pieces of work into bite-sized pieces
- Alternate the parts/concepts of a subject you study in your Pomodoro – this is called ‘interleaving’. How many Pomodoros will you need to do it overall?
- Write these on your Study Planner and spread them out across the weeks
- Organise well-spaced out re-cap/repeat time for sessions already completed across the weeks – this is called ‘spacing’ and is a highly effective technique to improve retention.
- Use spare minutes of time to look at your flash cards etc – keep them in your pocket.
- Include exercise on the schedule
- Make sure you are in bed with lights out at a reasonable hour. Sleep matters hugely!

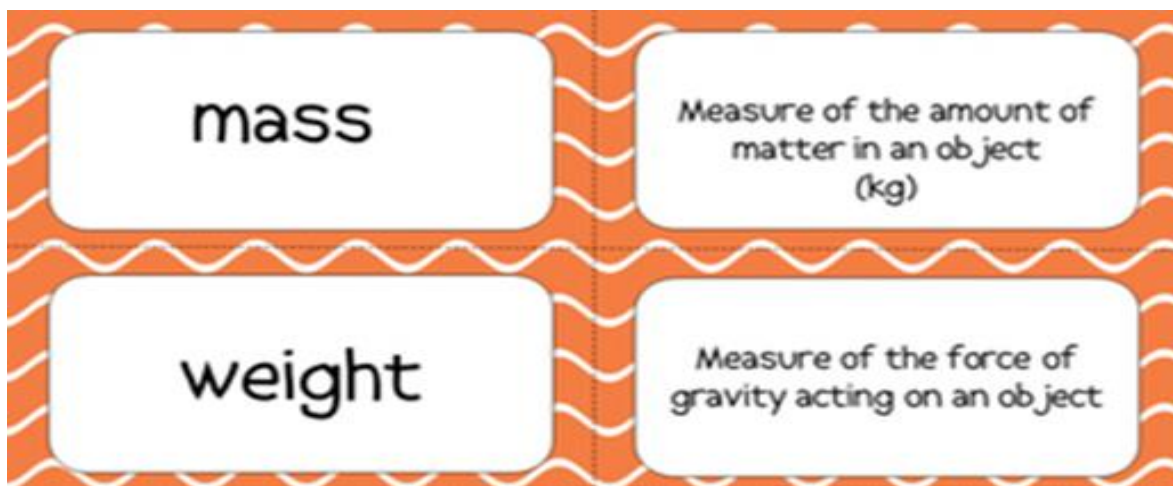


Organising your information

The information will not get stored in your brain from just reading it – learning is active. You need to work with it and use and reuse the information for it to be available for recall.

First thing to do is go through your notes and identify key points/info:

- Highlight key information
- Chunk it into groupings (five works well) and use headings
- Create mindmaps and diagrams
- Make flash cards
- Summarise your notes



Summarising

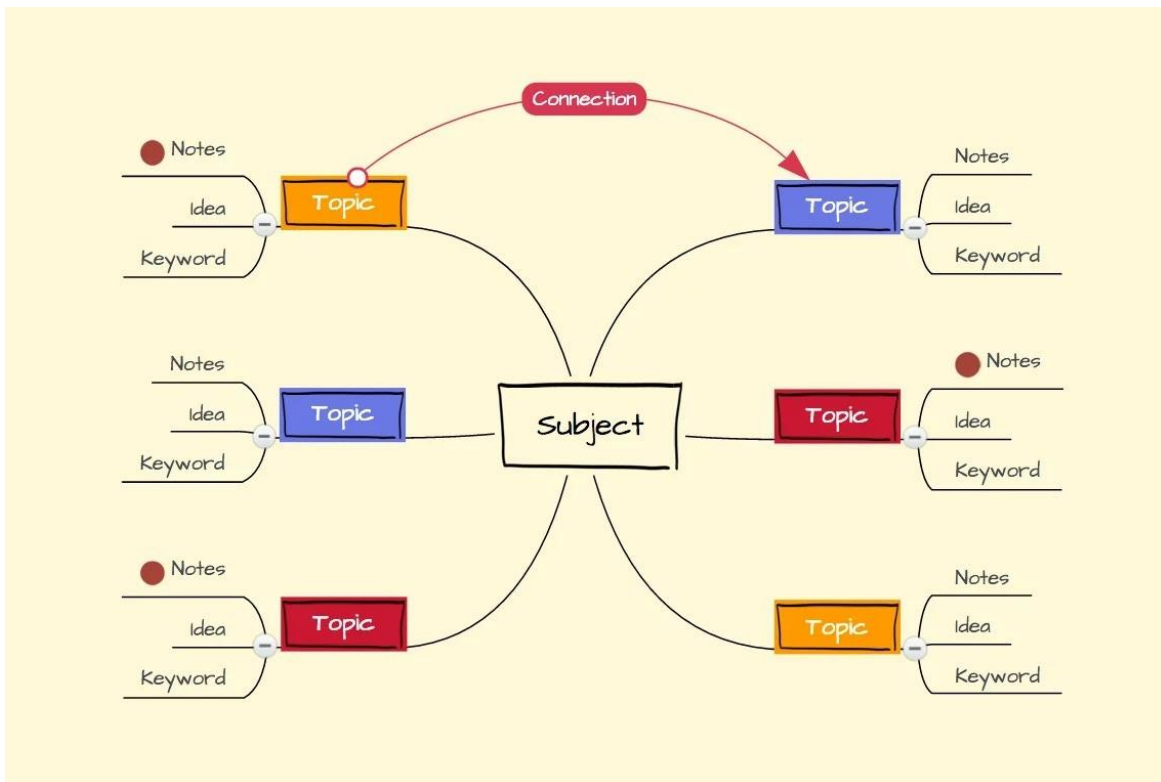
- Consciously decide to reduce the amount of information you need to learn
- Decide which things are most important from the page of information
- Prioritise your list of points
- Make your summary portable – this means you can use the notes anywhere
- Compare with your friends Make sure your summary addresses the question or includes all key information

Mind Mapping

This is a really effective visual method of making notes. You can do it via a range of apps or freehand. Coggle.com provide easy to use, free, mindmapping software.

You learn the information in a number of ways:

- By reading notes and selecting information to include
- By organising and grouping the information while you are mapping
- By making further connections
- By using your mindmap as a plan to write practice answers
- You can use your mindmaps again and again



Memorising:

It can be tricky to memorise information, especially terminology, quotes, and key facts. There are lots of ways to do this:

- Create mnemonics (shorty catchy phrases to remember key info)
- Use rhymes or turn it into a rap or song – easy and fun!
- Repetition – lots of it
- Chunk – group things in fives
- Flash cards
- Quizlet – create your own sets and then use them to test yourself
- Picture prompts
- Colours

What is a Mnemonic?

Mnemonics can really help you to remember specific information in the correct order. Acronyms and sayings, or even song lyrics, can work in the same way.

The diagram illustrates a mnemonic for the alkali metals. On the left, a vertical list of words in different colors: HIS (red), LAST (purple), SON (green), PLAYS (brown), RUGBY (blue), CRICKET & (pink), FOOTBALL (black). An arrow points from this list to a second list on the right: HIS (HYDROGEN) (red), LAST (LITHIUM) (purple), SON (SODIUM) (green), PLAYS (POTASSIUM) (brown), RUGBY (RUBIDIUM) (blue), CRICKET (CAESIUM) & (pink), FOOTBALL (FRANCIUM) (black). To the right of this second list is a vertical strip of the periodic table showing the elements H, Li, Na, K, Rb, Cs, and Fr, each with its atomic number and name. Arrows connect the words in the second list to their corresponding elements in the periodic table strip.

1	H	Hydrogen	1.008
3	Li	Lithium	6.941
11	Na	Sodium	22.990
19	K	Potassium	39.098
37	Rb	Rubidium	85.468
55	Cs	Cesium	132.905
87	Fr	Francium	223.020

What are the mnemonics that are used in your classes already?

For example, Year 10-12 English students at SMC use an acronym to remember the paragraph structure, which is similar to a mnemonic:

T	Topic sentence
E	Explanation
E	Example
P	Purpose of writer
E	Effect (on reader)

Mnemonics (or similar) from my other classes:

Use digital platforms for revision:

- Schoology
- Education Perfect
- Study It <https://studyit.govt.nz/>
- NZQA (for past exam papers and assessment schedules)

Year 13 Note-taking Method (Cornell)

Title of lesson		Date:
<p>Cue column</p> <ul style="list-style-type: none"> • Most important information • Headings • Topics 	<p>Notes column</p> <ol style="list-style-type: none"> 1. Record: During the lesson, use the note-taking column to record the lesson using short sentences. 2. Questions: After class, formulate questions based on the notes in the note-taking column. Writing questions helps to clarify meanings, reveal relationships, establish continuity, and strengthen memory. Also, the writing of questions sets up a perfect stage for exam-studying later. 3. Recite: Cover the note-taking column with a sheet of paper. Then, looking at the questions or cue-words in the questions and cue column only, say aloud, in your own words, the answers to the questions, facts, or ideas indicated by the cue-words. 4. Reflect: Reflect on the material by asking yourself questions, for example: "What's the significance of these facts?", "What principle are they based on?", "How can I apply them?", "How do they fit in with what I already know? What's beyond them?" 5. Review: Spend at least ten minutes every week reviewing all your previous notes. If you do, you'll retain a great deal for current use, as well as, for the exam. 	
1/3	2/3	
<p>Summary</p> <p>+/- 8cm</p> <p>After class, use this space at the bottom of each page to summarise the notes on that page.</p>		

Sourced from <http://onlineresources.blogs.auckland.ac.nz/cornell-note-taking-method-word-doc/>

On Exam Day

- Try to relax the night before
- Use the breathing exercises your teachers have taught you
- Get up in plenty of time
- Eat a healthy breakfast
- Check you have everything you need for the exam
- Arrive a bit early
- Listen carefully to instructions
- Read over the entire exam first then plan your time carefully
- Attempt all questions – return to difficult ones at the end if you have time left over
- Highlight key words in the questions
- Plan your answers
- Never leave before the end – check and recheck your answer!
- Stay positive!
- Remember, if you've planned your study programme well, there should be no surprises.