



NCEA

Revision – What Works!



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Why do we revise?

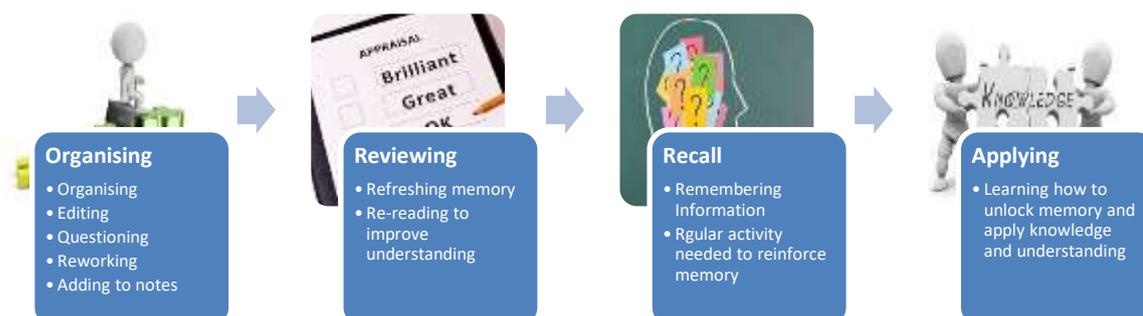
Revision is

- Organising what has been studied so that it can be learnt;
- Improving recall;
- Improving understanding of ideas and processes (how things work);
- Learning to adapt what is known;
- Learning how to unlock memory during exams.

Revision should aim to create a permanent store of information in students’ minds which can be used efficiently. So memory is only one of the aims of revision! Revision is a process that begins almost as soon as we encounter new information and it should be continuous through all work. It should be an active and critical process helping students to develop understanding and the ability to apply information as well as knowledge.

Main Revision processes

The whole process of organising, reviewing, recall and learning to apply key knowledge, skills and understanding is REVISION.



To revise successfully, students need to develop a number of important skills:

Note-taking	Displaying	Organising
Prioritising	Evaluating	Reviewing
Critical thinking	Applying	Memorising
Time Management	Supporting (peers)	Problem solving
Decision making		

Ideally, these skills need to be developed over a longer period of time rather than just being introduced during a revision programme. It is helpful to make these skills explicit and to model their use when they are introduced to students.

What should happen and when?

Subject Support	Date	Tutoring
Take stock! Review progress and achievements from Senior Assessment Week (May) Where can improvements be made?	May	Review targets for success Advice on long-term preparation and organisation
Getting Ready!		
Focus on organisation Provide subject coverage checklists	June	Exam timetables Motivation, concentration and application
Revision strategies Organising revision notes (altering, editing, re-working)	July	Review progress and revision timetables
Review and recall strategies (model techniques)	July	Peer support Focus on motivation
Make it active!		
Increase focus on application of skills, knowledge and understanding to exam questions: <ul style="list-style-type: none"> Practice questions Model answers Peer and self-assessment 	August/September	Emphasis on healthy revision Relaxation Healthy diet
Unlock Memory		
Review Progress and revision timetables for Term 3 holidays	September/October	Maintaining motivation
Sharpen recall and ability to apply skills, knowledge and understanding in externals	October/November	Coping with exam stress Keeping healthy Brain Gym

Key principles of a revision programme

Revision programmes should be:

- Motivational and confidence building – build success into the programme!
- Different – novel, fun and varied!
- Individualised – encourage students to use strategies that suit their learning styles and different concentration spans!
- Collective – using collaborative strategies and utilising peer support and feedback
- Focused and relevant
- Structured but also flexible
- Analytical – of subject skills and content, and of examination technique
- Supportive and supported by additional revision/examination specific materials
- Collectively planned by staff within and across departments
- Participatory – students and staff involved in the design and evaluation of revision programmes. Students can also make a valuable input into the programmes themselves!
- Staff developmental – using feedback from NZQA and experience of marking/moderating externals
- Updated annually!

In the longer term, successful revision programmes will draw upon work from a whole range of 'learning agendas':

- Independent learning
- Student-centred learning
- Critical thinking
- Study skills
- Assessment for Learning
- Motivation and Engagement
- Brain learning (Brain Gym)
- Learning to Learn

Getting Ready!

- Revision begins with organising and revising notes.
- Ideally, this should happen throughout a course of study but this planning and organisation of revision should certainly begin by the beginning of August.
- The aim is to actively rework notes into a better, more accessible form to aid understanding.
- Most students will need help to develop their note-taking skills as they will either not have been introduced to these skills or not have developed approaches that work for them.
- Introduce students to useful ways of organising information in your subject-
 - Diagrams
 - Mindmaps (Add Mindmap to your Google account via the Chrome Webstore)
 - tables
 - flowcharts
 - sketch maps
 - spider diagrams
- Encourage students to be 'critical' of their notes – edit, question, re-work, fill gaps, correct and add to notes.

- Visual techniques help memory – use different colours, highlighter pens
- Students need careful guidance with organisation and time-management. Do not assume that they can just plan a revision timetable. Most will have not had experience of planning for such a long period of time (August-November).
- Checklists help! Provide students with checklists of what they have covered in the course. This helps them to identify gaps and to feel confident about the amount of work they have actually done! They can also use these checklists to identify what they are more and less confident about to help focus their revision.
- Provide essential information about the externals in your subject – what they cover; continually re-visit this essential information and ensure that it is built into their revision timetables.
- Provide packs of past externals and assessment schedules/mark schemes where appropriate and ensure that students understand how to use them effectively. These packs will have too much material for some students to wade through and make sense of. For these students, working through a sample of questions and answers, modelling how to approach certain types of question will be more helpful.
- Help students to organise revision timetables into manageable and realistic blocks of time. For some, this may involve a couple of hours each evening through August and September, but for others just one hour will be a result! In each case, they should be encouraged to focus on 2-3 different subjects to avoid boredom and they should aim to revise a specific topic within each block of time so that they can see achievable goals.
- Emphasise the need to build in breaks for relaxation, physical and social activities. The brain can only concentrate for so long (20-40 minutes)!
- Use progress charts to keep motivation going! Help students to review their progress by checking off what has been covered.
- Rewards and incentives should be linked to progress over short, fixed periods of time.

Some tips from students

“The biggest tip that ANYONE can ever give you (and everyone you will ever ask will agree) is to START REVISING EARLY. And that’s NOT the day/week before the exam. I mean MONTHS before your first exam!”

“Organise your subjects into topics. Then revise a topic a week, then go to the next topic. This way you’ll cover everything. To do it properly takes a long time and therefore you NEED to start early. It’s the best tip anyone can ever give you for passing your exams!”

“DO NOT leave all your revision for study leave. It will be impossible to cover everything properly if you leave it for the couple of weeks before exams start. By study leave, you should have covered most of your subjects roughly. The study leave period will be where you take revision up a gear and start focusing on the areas that you are really not sure of.”

Time management

- Help students to decide how much time to spend on each area.
- Emphasise the need to keep revision organised and progress monitored so that they know exactly where they are with their revision.
- Encourage students to review timetables and reorganise them realistically if they slip.
- An example of how to organise revision over the Easter break:
- Organise revision into blocks lasting up to 2 hours
- 3 x 40 minute sessions
- Each session should focus on one topic or task (such as practising one question or skill)



- Include 5 minute breaks to sharpen concentration (e.g. with brain gym activities)
- Build in time for relaxation and social activities
- Relaxation – what works for them? (stretch and re-focus, relaxation exercises)

Make it active

“One of the most profound miracles of the human brain is our capacity for memory.”- Jean Houston, Philosopher

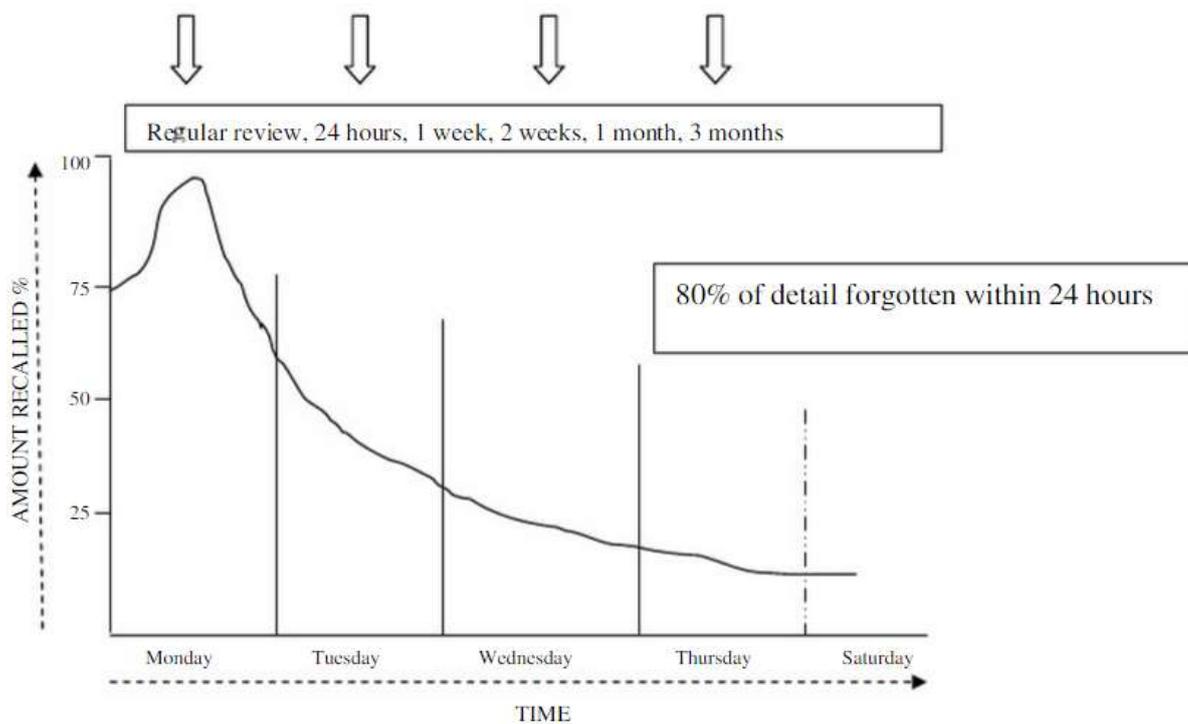
“Memory has been likened to a snowball: the more it rolls, the bigger it becomes, and eventually it will roll under its own momentum.”

- This section contains tips and strategies for organising what has been studied so that it can be learnt.
- It is important to use different approaches to meet the needs of different learners.
- Activities and strategies used should aim to improve understanding and skills as well as recall!

How does reviewing work help understanding memory?

Reviewing will keep more information in the mind for longer and when practised over time, will fix it there!

How memory works over time



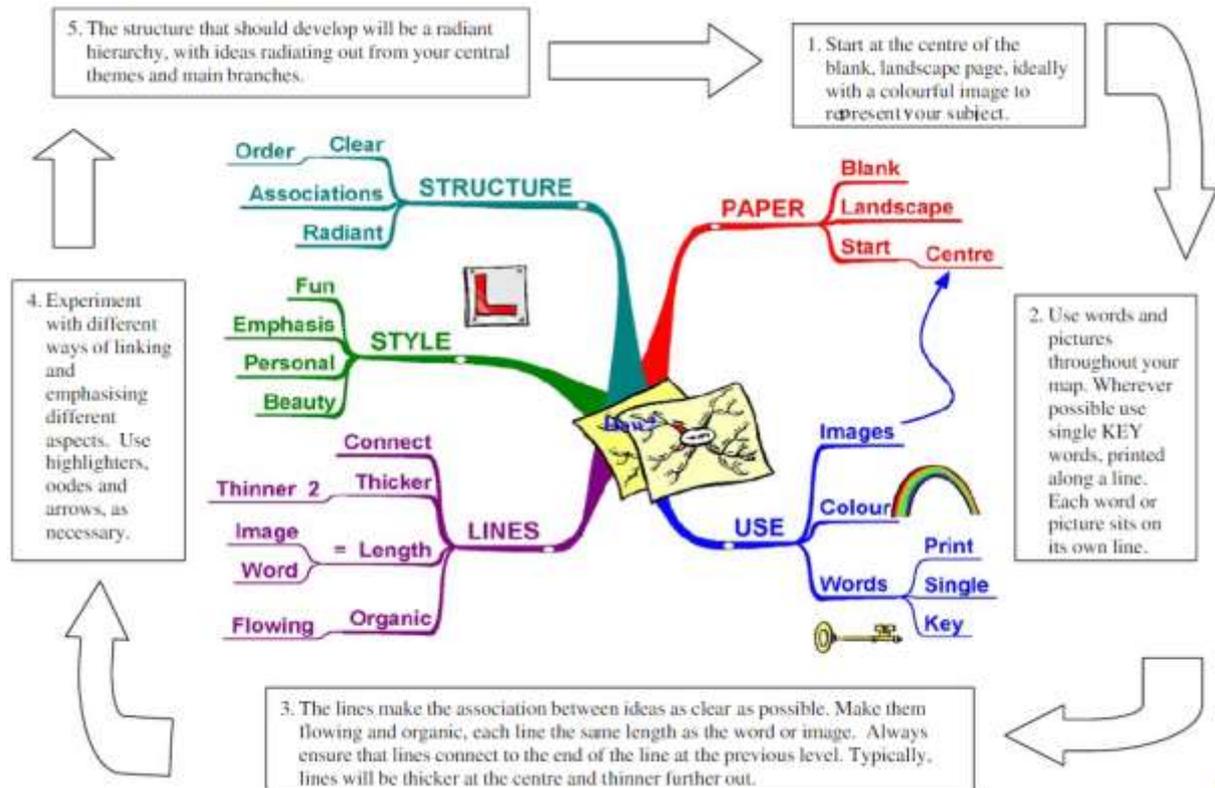
- The more frequently something is repeated, the more likely it is that it will be remembered (as with nursery rhymes and tables!)
- Regular reviews ensure that information stays in long-term memory
- Students should be encouraged to look at notes while understanding is fresh. After 24 hours, much of the meaning of notes starts to be lost.
- “The more you link, the more you learn!”
- Memory works by association and connection. Your ability to understand new information relies on your ability to fit it into a pattern of existing knowledge.

Some useful active revision techniques

- Look, cover, write, check! Re-working notes – Look at a revision card, case study summary or page of topic notes for a fixed period of time (5mins) – Cover up the notes – Then try to write down everything you can remember from the notes in a limited period of time (5 mins) – Then check back against the original notes, adding what has been left out or forgotten in a different colour. Use these re-worked notes when revising this topic again – The mind will focus harder on the words written in a different colour (i.e. what it found difficult to remember the first time!). This technique can also be used for remembering diagrams.
- Mind-mapping
 - Mirrors how the brain works
 - Makes use of linking
 - Makes use of different learning styles
 - Saves time as only key words are recorded
 - Ideas are easy to remember
 - Stimulates the right (pictures) and left (words) side of the brain
 - Easy to review and to recreate from memory
- Linking to remember. Show students 10-20 words, images or objects – Ask them to write down as many as they can remember. Then look at ways of grouping these words, images or objects (based on topic themes etc) – Cover them up again and ask the students to see how many they can remember this time.
- Stories can be another powerful memory tool. Link words in a story and ask students to visualise the story(similar to remembering a shopping list.
- Rehearse it out-loud. Students speak what they are learning onto an audio-tape or podcast. They play it back and listen to the information. This can add variety to revision and aid concentration.
- Encourage students to use colours, images and diagrams to help them remember things. Labelling diagrams and photo images with key words and names of features or processes can aid memory.
- Build in unusual information – the brain will remember things that are different or funny.
- Create an interest! Encourage students to find reasons why they might be interested in learning something.
- Regular review. Students could stick posters, mind maps, diagrams, key word flash cards around a room so that they can return to them regularly giving the brain lots of opportunities to refresh the memory.
- Move it around! Write and draw things on cards and post-it stickers, then move them around while trying to learn these things.
- Traffic lights. Use this technique to check progress with revision. Green = got it! Amber = not sure? Red = don't get it! Students check with others and help with their red and amber topics (peer teaching)
- Experiment with music. Try playing some relaxing music in the background while trying to learn something. Research shows this has a positive effect on brain waves!
- Back-to-back. Students sit in pairs, back-to-back, close enough to hear. Student A is given visual material (an image or diagram). B has a plain piece of paper and a pencil. A describes the visual to B who draws it. B can ask questions too. After a few minutes, the partners compare the original with the copy. De-briefing should focus on the technical language needed. This strategy can help to develop students' skills for describing and explaining.



Mindmapping



'Unlocking' memory

- Learning to adapt what is known and understood.
- Practise exam skills – learning how to 'unlock' memory and apply understanding in exams.

Another student tip:

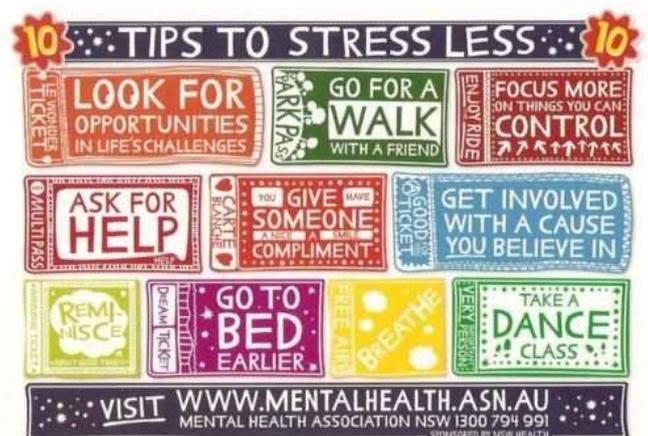
"As an alternative to revising alone, which can get so tedious and boring, find someone who is as dedicated as you to help you. You will learn things from each other. Teaching someone something is the best way of learning what you want to learn."

- Answering practice questions. This is most effective when done over fixed time periods with marking and feedback following soon afterwards. During the early part of the revision period, work through a plan of how students might tackle a question, then give them the same amount of time to write an answer as they would get in the examination. Over time, provide less help with planning answers.
- Provide different approaches for working through past papers. Some students can work through lots of past questions. For others, there is too much material in past paper booklets and working through a few carefully, modelling answer strategies can be more effective.
- Help students to understand assessment/mark schemes and show them how they can be used effectively.
- Model approaches to answering different styles of examination question.
- Practise different examination subject-specific examination skills.
- Model approaches to planning answers
- Planning - Divide up a model answer into discrete sections and label each section. Students have to give each section a heading and then decide which order they should go in. This can help them to plan a coherent structure to longer answers (extended writing).
- Use model answers carefully as overuse can lead to rigidity and prevent some students from applying what they know flexibly to different questions.

- Peer assessment - Students answer a question over a fixed period of time, then peer assess their partner's answer with the teacher explaining how to use the assessment schedule. Immediate feedback aids understanding of the success criteria!
- Peer testing - Students can get someone to test them with questions on different topics and key word definitions. Parents can help too if allowed!
- Beat the teacher! Read or write a passage of text, demonstrate an activity, work through a calculation, draw a diagram or explain a concept. Include some mistakes. The students have to spot, make a note of and correct the mistakes.
- Revision Bingo - Write key words from a topic onto a bingo grid. "Eyes down!" Read out definitions in a random order. The students cross off the words on their cards when they match a definition. When they call a line, they have to read back the key words and their meanings.
- Other useful games for adding variety to revision-
 - Mastermind
 - Dominoes
 - Who wants to be a Millionaire?
 - Blockbuster
 - Speed-dating

Healthy Revision

- Some key messages to reinforce with students
- Short, sharp and regular is best!
- Don't revise all the time! Students should be encouraged to take breaks to relax and do things they enjoy.
- Get regular exercise.
- Eat healthy food regularly.
- Drink lots of water to hydrate the brain.
- Get plenty of sleep.
- Use brain gym techniques to stimulate the brain.
- Change hands when brushing teeth and using a computer-mouse etc (uses both sides of the brain)
- Breathe slowly and deeply when feeling anxious.
- Use relaxation techniques if helpful.
- Don't bottle it up!
- Encourage students to talk about it if they feel stressed. Many feel pressurised into hiding their feelings out of embarrassment or concern not to burden family or friends.
- Look out for signs of stress
 - lack of sleep or irregular sleeping patterns
 - loss of appetite or irregular eating
 - low energy and lack of concentration
 - loss of interest
 - panic attacks and difficulty breathing
 - tight, knotty feelings in stomach.
- Organise a place to work
 - try to clear this space of distractions
 - make it comfortable and organised for how they
 - ensure there is enough light
 - agree working conditions with family and friends (how they work best and when not to be disturbed)



“Whatever anyone says, you cannot spend 10 hours solid revising each day. After about 3 of those hours, your brain will have switched off and your effort will have been wasted. So don’t aim to spend an extraordinarily stupid amount of hours revising. Be realistic. There’s always tomorrow!”

Useful resources

Barwood T (2005) “Learning to Learn Pocketbook”, Alresford: Teachers’ Pocketbooks

Ginnis P (2002) “The Teacher’s Toolkit: Raise classroom achievement with strategies for every learner”
,Carmarthen:Crown House Publishing

University of the First Age (2002) “Brain Friendly Revision”, Network Educational Press
Bennett J (2006)

“Camel Study Skills: Improving memory, revision and exam techniques”, Tiercel Publishing

Useful Websites

Identifying your preferred learning style (survey) - <http://www.educationplanner.org/students/self-assessments/learning-styles.shtml>

NZQA Search for exams and exemplars -

<http://www.nzqa.govt.nz/ncea/assessment/search.do?query=&view=exams&level=01>

NCEA ESA Study Guides - <http://esa.co.nz/collections/study-guides>

StudyPass for NCEA Maths and Science - <https://studypass.com/>

NCEA Eagle - <http://nceaeagle.co.nz/>

Studyit for NCEA - <http://www.studyit.org.nz/>



Excellent Science revision resources including notes, Flashcards, Test yourself activities and PowerPoints -

<http://www.nobraintoosmall.co.nz/>



NCEA Campus – A youth-led, not-for-profit organisation that runs ½ day revision courses during the October holidays

- <http://www.nceacampus.org/>



NCEA Revision in Maths, Physics and Science - <http://www.ncearevision.co.nz/>

A great Pinterest board on Revision Tips - <https://www.pinterest.com/georgiaxelliex/revision-tips-and-methods/>