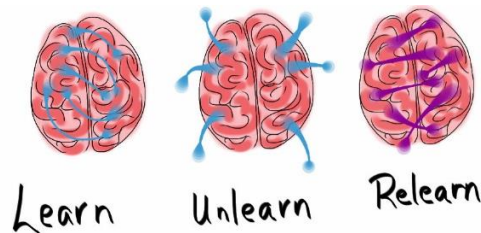




## VCE Exam/Study Tip 26: Keeping Learned Knowledge Alive



### Let's take a look at a common student scenario:

Students attend school where they are exposed to new materials. They then spend significant amounts of time completing homework, which reinforces and extends on what they've learned at school.

They then spend significant amounts of time studying for their school based assessments. Some students perform well, others don't, but one thing that most students have in common is that once a topic has been completed, they push those materials to the side, only revisiting these same topics in the weeks leading up to the exams.

They then pick up **previously learned materials** only to find that they've forgotten most of what they had previously learned! So they go through the learning process once again!

Although some of the previously learned materials don't take that much time to re-learn (memory trace), you will spend up to 80% of the time initially invested in learning new concepts to re-learn this same material in the lead up to the exams. This means that if a student invested 45 hours learning a new topic at the beginning of the year, they'll be required to spend up to 36 hours to re-learn the same materials for the exams.

### Do students really have that amount of free time?

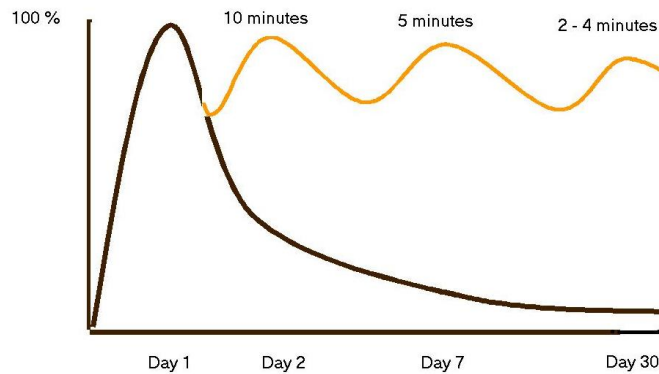
You had learned the examinable materials earlier in the year, so why are you wasting precious time re-learning it when the hard work was previously done?

If simple reviews had been conducted throughout the year, there would be very little to re-learn before the examinations. Students could then dedicate the weeks leading up to their assessments consolidating what they've learned, practising past examination questions **and** performing to a much higher standard in the exams. These students would also be suffering from significantly less stress and anxiety than their peers as the time spent revising materials on a regular basis would be significantly lower than re-learning materials before the exams.

In order to cut down on how much work is required in the lead up to the exams (and to maximise examination marks), it's important that students keep any recently learned materials or any new knowledge acquired **ALIVE** by engaging in regular reviews.

## The Curve of Forgetting

The **Curve of Forgetting** (in black, below) describes how much knowledge is retained after a one-hour lecture or class that addressed **new materials**.



We enter such a lecture/class with no knowledge of the materials being addressed. At the end of the lecture, we “know” 100% of what we remembered.

In general, if we’ve done nothing with the information we learned (e.g. thought about what was learned, read through summary notes, worked through questions etc.), we will have lost 50%-80% of what we learned within 24 hours! By Day 30, we only retain 2%-20% of the information that was presented across the one hour class or lecture.

A series of simple, well structured reviews can, however, keep information stored in long-term memory for extended periods of time, as shown by the orange curve in the diagram above.

- **Within 24 hours of learning – Spend 10 minutes per learning hour revising learned materials.**

Re-read your notes or work through select questions or past exam papers. Alternatively, you may choose to write summary notes or summary cards.

This will raise the knowledge retention curve back up to almost 100%, and keep the information in long-term memory for about a week.

**Note:** Some information, particularly the harder concepts or the materials that are completely new, must be reviewed the next day if you need this information to remain in long-term memory. Some materials, such as the easier concepts or the materials that are extensions of materials that have already been committed to long-term memory can wait as long as a month before they need to be reviewed. In general, the harder or newer the materials are, the sooner these materials should be revised.

- **Revise materials 1 week after learning.**

It will only take you 5 minutes to reactivate the knowledge learned across the initial one hour lecture/class, and keep information in long-term memory for about one month. This review can be conducted by reading through summary notes, re-working questions that you found challenging or answered incorrectly, as well as working through select past/potential examination questions.

**PTO**

- **Revise materials 1 month after learning.**

It will only take you 2-4 minutes to reactivate the knowledge learned across the one hour lecture. This review will keep the information in your long-term memory for about 6 months.

This review can be conducted by reading through summary notes, re-working questions that you found challenging or answered incorrectly, as well as working through select past/potential examination questions.

### Alternate Revision Schedule

**Step 1:** Revise new/challenging materials with 24 hours and simple materials with 3 days (complete homework and/or write up notes and/or practise questions).

**Step 2:** Revise materials at least twice before a topic test. Otherwise, revise materials at least twice in that term.

**Step 3:** Dedicate some time to revision across **each** school holiday.

### Important Notes

- There will be times, when despite the best intentions, students will struggle to adopt the suggested reviews. If you are struggling with time, simply implement a review as soon as you possibly can. You will, however, need to spend a little more time than that described in this study tip to raise the knowledge curve back to almost 100%.
- The first review is the most critical (the one within 24 hours) where new and/or difficult materials are concerned. If you need to cut back on the number of reviews, the review at the 1 week mark is the least damaging review to skip.
- The more frequently you revise materials, the more firmly information becomes ingrained into long-term memory, and the better your performance in tests and exams.
- Once a topic has been learned well (e.g. for a test), keep learned knowledge alive by investing a few hours each term holiday working through exam-style questions and reading through notes/summaries. This will significantly decrease workloads in the lead up to the major examinations.

Regards,  
The Team at TSFX.