

# LEARN

## HOW TO LEARN

Around 50% of our learning and memory capabilities are determined by our genes; you can't do anything about that. However, the other half can be changed.

Take this chance!

# Before you start learning

“Give me six hours to chop down a tree and I will spend the first four sharpening the ax.”

*Abraham Lincoln*



## MOTIVATE YOURSELF

You need motivation to learn efficiently. If you are not motivated, it is very hard to focus on the learning material, and you will always find excuses to quit. If you lack a general interest in the topic, you might still find certain aspects interesting. Try to find them. You can also motivate yourself by imagining the overarching goal (e.g., to pass the exam). Last but not least, plan to reward yourself after an intense learning session with something you really enjoy!



## ORGANIZE YOURSELF

Before you start learning, get an overview of the material that you need to learn, and identify how much time you will need to study it. Break the material down into digestible, bite-sized pieces, and make a schedule of when you will learn the content and when you will repeat it. Making this kind of plan stops you from becoming overwhelmed by the work, and it ensures that you block out the time needed to learn it. Feeling well-prepared will keep your stress and cortisol levels low during the exam, which is, as you may have learned by now, definitely an advantage.



## RECHARGE YOURSELF

It is very hard to stay focused if you are tired, so getting enough sleep and recovery is essential for efficient learning. Moreover, sleep supports memory consolidation. If you are tired, take a short nap before you start studying.

# Science-based learning tips



## EMOTIONALIZE

Emotions are the strongest memory booster available. Why do you remember that bicycle accident, why that kiss? Yes, because of emotions! Use this mechanism to your advantage when learning, and put the material in an emotional context whenever possible. For example, when you need to learn facts about a disorder, imagine that one of your loved ones has it, and you are eager to learn everything about it. Use emotive stories and weave the learning content into them, using vivid imagery.



## USE MNEMONICS

There are different mnemonic techniques that you can use to memorize different types of information. For example, if you need to remember every item in a list, and in the right order, such as the order of the planets (from closest to furthest from the sun), you just learn the phrase “My Very Educated Mother Just Served Us Nematodes” – Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus, Neptune. But most importantly, find out what works best for you. This could be flashcards, writing summaries, highlighting text, drawings, or listening to recordings.



## TAKE BREAKS

A state of high mental concentration can only be maintained for a limited time (usually between 20 and 60 minutes depending on the person and on the complexity of the learning material). Since it does not make sense to continue studying when you are not focused, be aware of when you are losing focus and take a break of 5-10 minutes. After studying for three hours, you should take a longer break (1–2 hours), and do one of the following three things: 1) Eat something. Glucose is known to support memory consolidation. 2) Exercise, preferably at high intensity, which leads to the release of catecholamines that support memory consolidation. 3) Take a nap. Memory consolidation has been shown to benefit from napping



## REPEAT

We know from Hermann Ebbinghaus – and from our own experiences – that repetition makes us less prone to forgetting. Two things are important for this: A) You have to actively retrieve the information. It may therefore be helpful to ask questions while you learn that you can later use for the repetition. B) Spaced repetitions are the most powerful, e.g., an initial repetition on the same day after you have learned the material, followed by a repetition the next day, then after one week and after a month, depending on when the exam takes place.