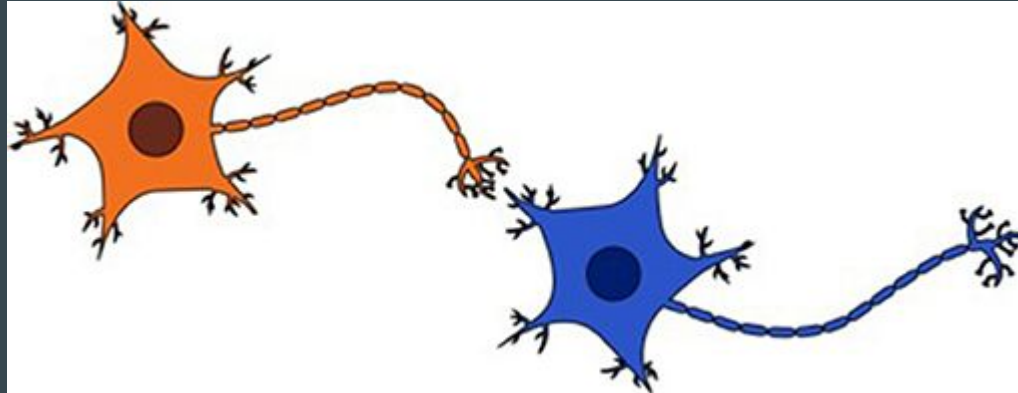


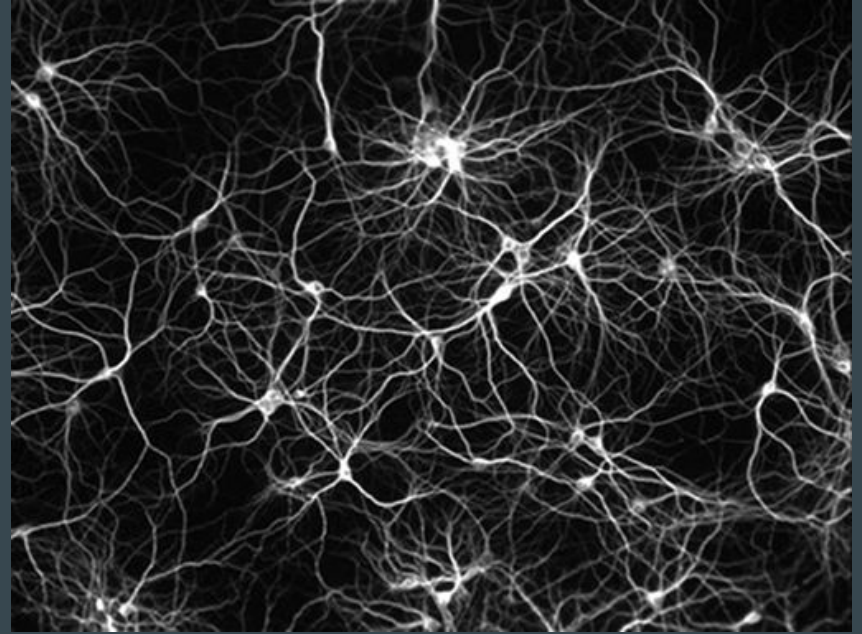
How Our Brain Works

Your brain is primarily composed of about 85 billion neurons, which is more than the number of stars you can see with the naked eye in the night sky. A neuron is a cell which acts as a messenger, sending information in the form of nerve impulses (like electrical signals) to other neurons



For example, when you are writing, some neurons in your brain send the “move fingers” message to other neurons and this message then travels through the nerves (like cables) all the way to your fingers.

The electrical signals that are communicated from one neuron to another are therefore what allows you to do everything you do: write, think, see, jump, talk, compute, and so on. Each neuron can be connected with up to 10,000 other neurons



Use it or lose it

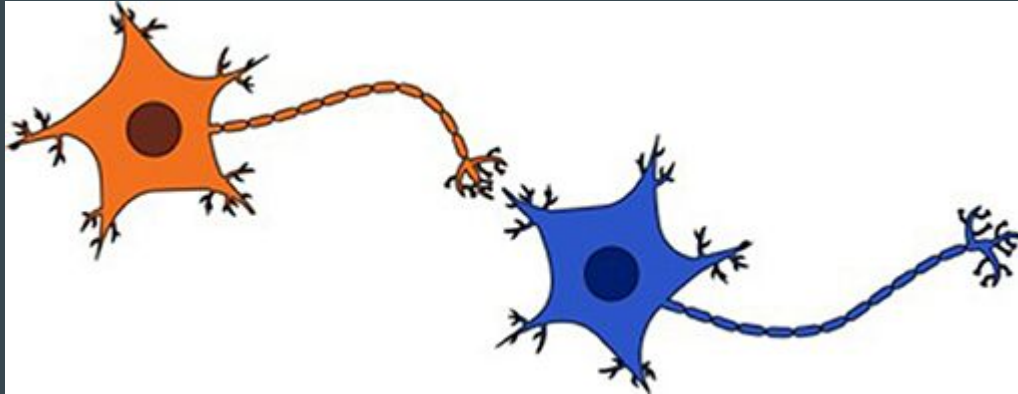
The more you practice, the stronger these connections become. As your connections strengthen, the messages (nerve impulses) are transmitted increasingly faster, making them more efficient . That is how you become better at anything you learn whether it is playing football, reading, drawing, etc.

When you stop practicing something, the connections between your neurons weaken and can ultimately be dismantled or pruned.

But don't worry - you can strengthen your neurons

The fact that learning rewires your neurons shows how dynamic (plastic) your brain is—that the brain changes and does not remain fixed.

Practicing or rehearsing repeatedly activates your neurons and makes you learn.

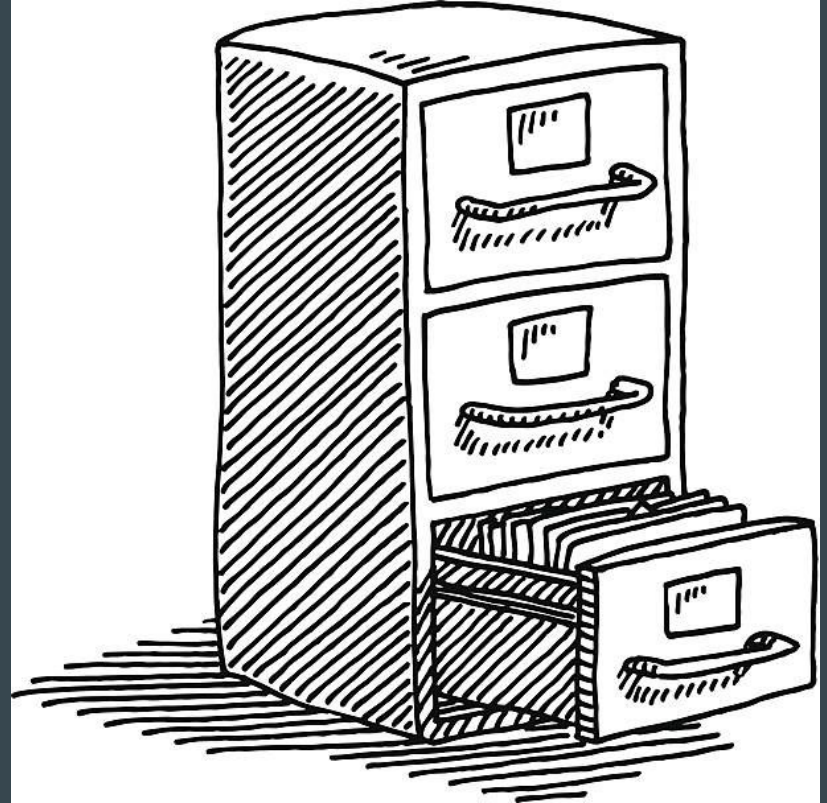


Activate your neurons often!

The connections between your neurons need to be activated multiple times to become stronger and more efficient, a first and crucial strategy is to repeatedly activate them. This means that to learn your times tables for instance, you have to practice it repeatedly, to establish the “trail” between your neurons.

You have to try recall the answer yourself to activate your connections. We are not saying that this is easy to do! However, scientists think that this “struggle” improves learning because the challenge is an indication that you are building new connections.

This includes how often you revisit the subject matter as it take time to go into your long term memory



Activate your neurons often!

When you do try to recall what you have learned and make a mistake, it can help you identify gaps in your learning and give you an indication of which trail still needs to be worked on.

Use:

- ★ Quizzes
- ★ Flashcards
- ★ Mind-maps
- ★ Presentations

Your learning environment

Your brain can only cope with four things at once.

If two of those things are your phone or noise or your ipad or your cat - that means you only have capacity for fewer pieces of information.

Your brain will go into cognitive overload, and your revision won't be as effective.



Planning is key

By having a plan it might reduce your stress.

But it needs to be achievable, so it doesn't cause more stress.

Remember to stop cognitive overload 'revise in small chunks' 20 minutes then a break. (Unless you are doing a practice paper)

