

How we...

ENCODE MEMORIES

so they stick!



Matt is creating a new password and wants to remember it. As he types the letters and numbers, they enter the brain as a sensory memory.



He focuses his attention on these stimuli, allowing the password to move to short term memory



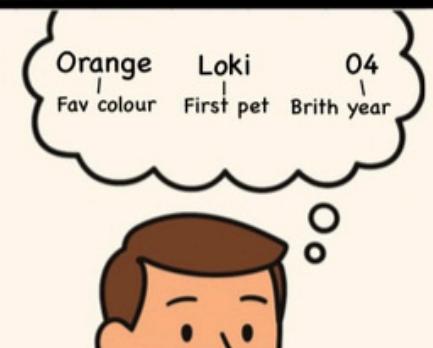
The password has now entered his short term memory, but is in a very fragile stage, so it will fade if Matt doesn't do something with it



To keep the password active Matt repeats it several times over in his head

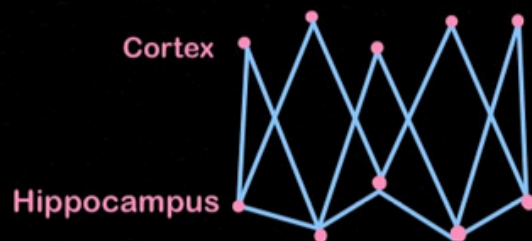


Next, Matt needs to break down the password into smaller chunks



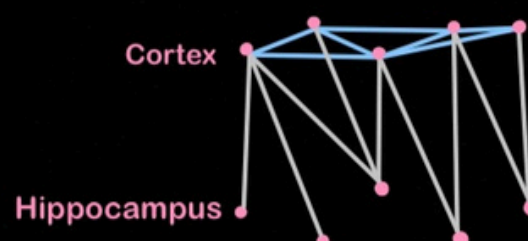
He will now encode these smaller chunks with personal meaning, to allow for deeper processing, helping the brain store it better

Inside the brain...



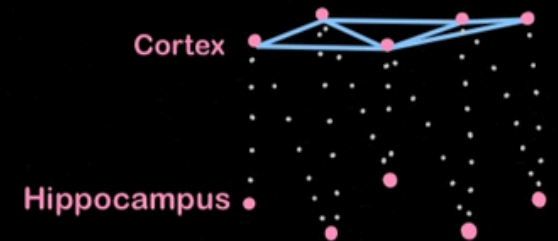
Now in Matt's brain over the next minutes and hours synaptic consolidation is occurring. Neurons are strengthening their connection as he thinks about his password

SHORT TERM

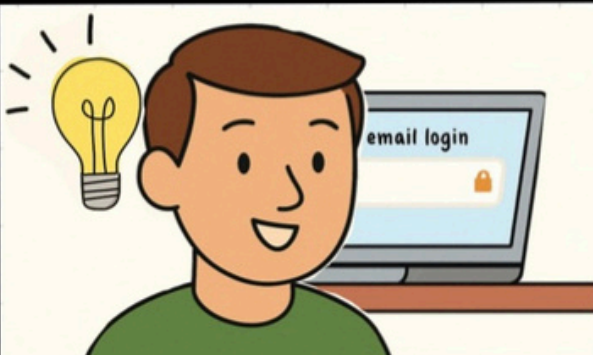


Overtime the connections in he brain based on Matt's new password shifts from short term reliance on the hippocampus to long term storage in the cortex

LONG TERM



During the next days and weeks the password has becomes reliant and stored in the cortex



The email login screen now acts as a cue for Matt



The cue triggers his brain to recall the password



Now when the cue occurs in future, Matt's successful recall will make the memory stronger