

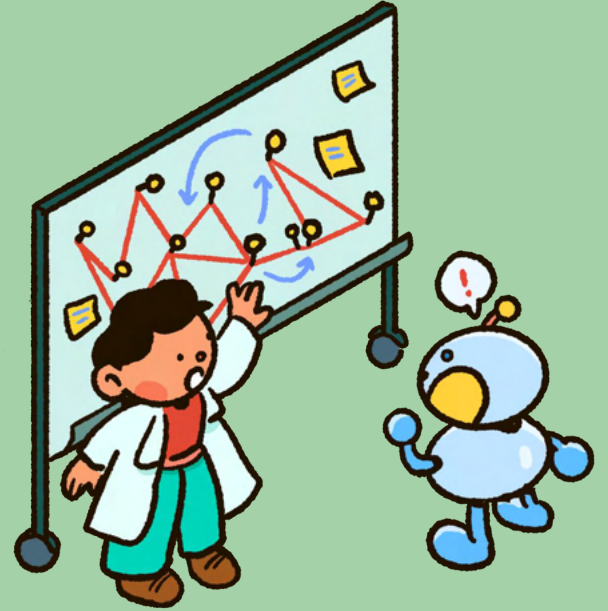
# Boost Memory And Learning With The Science Of Sleep

Discover how getting enough quality sleep is essential for transforming new knowledge into lasting memories.

<https://bit.ly/HYBactivity3>

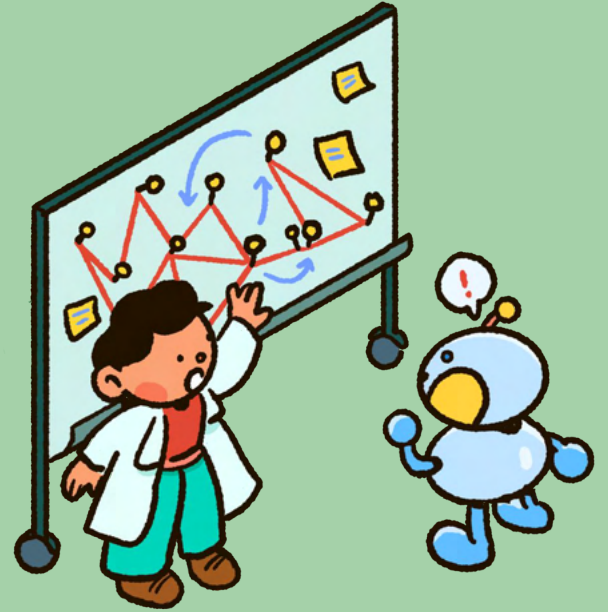
# Absorbing Information

- Your mind is like a sponge, it soaks up information.
- When you experience something your brain remembers that experience.
- However, there are some limits to how much information your brain can hold at once.



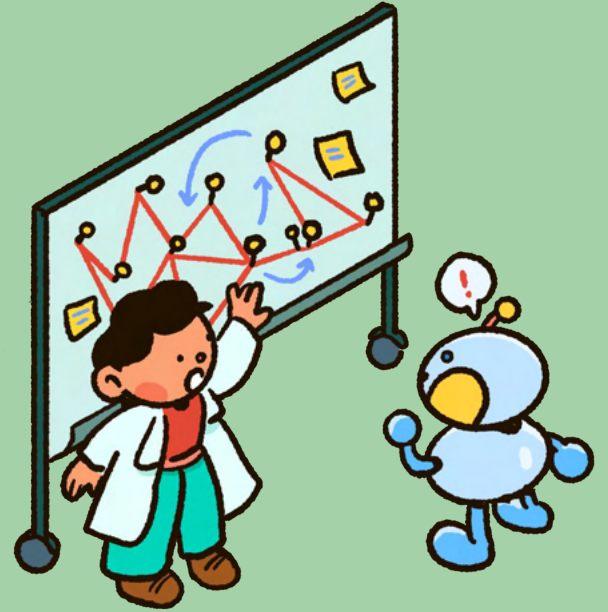
# Absorbing Information

- Let's try an experiment.
- You'll need one completely dry sponge (or a cloth or paper towel), a measuring cup, and water.



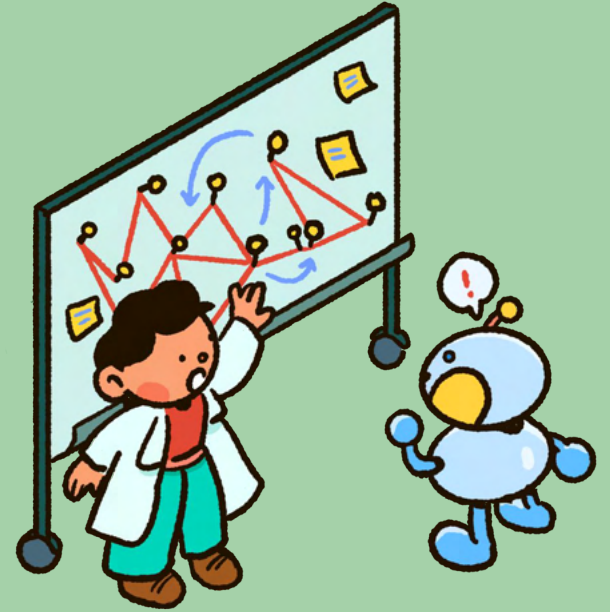
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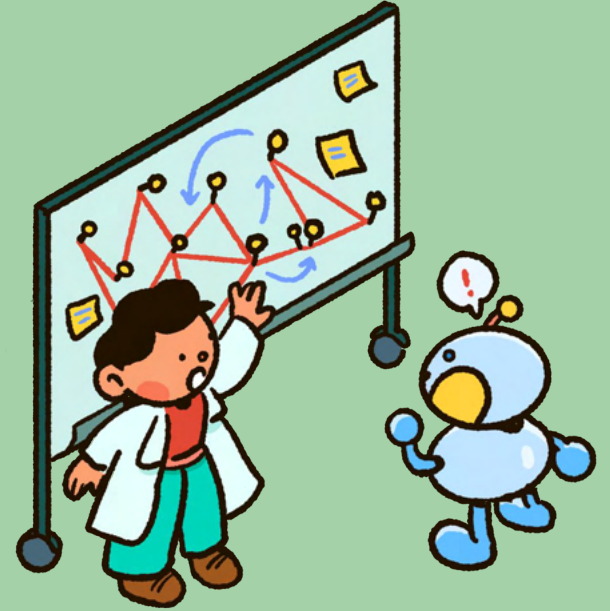
# Absorbing Information

- *Was cleaning up a spill with a wet or dry sponge more effective?*
- *Why do you think that is?*
- The dry sponge is like your brain when you're rested, relaxed, and focused. The soggy sponge is your brain without sleep.



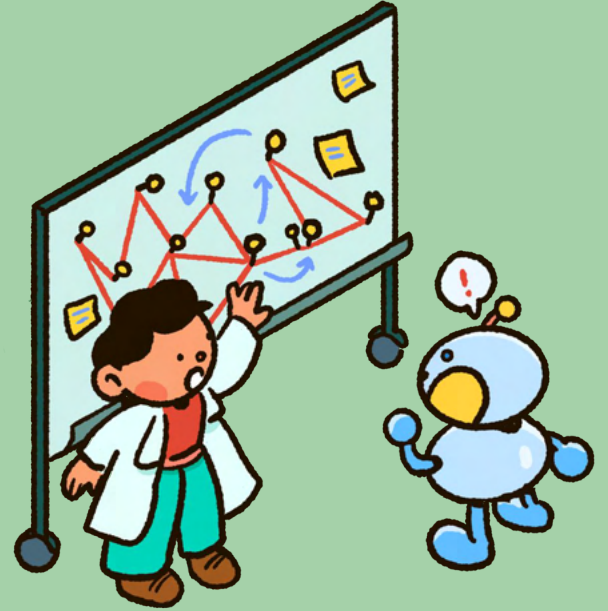
# There Are Many Types of Memory

- Memory is information the brain has encoded and stored.
- There are several types of memory.
- Remembering new information or events relies primarily on long-term and short-term memory.



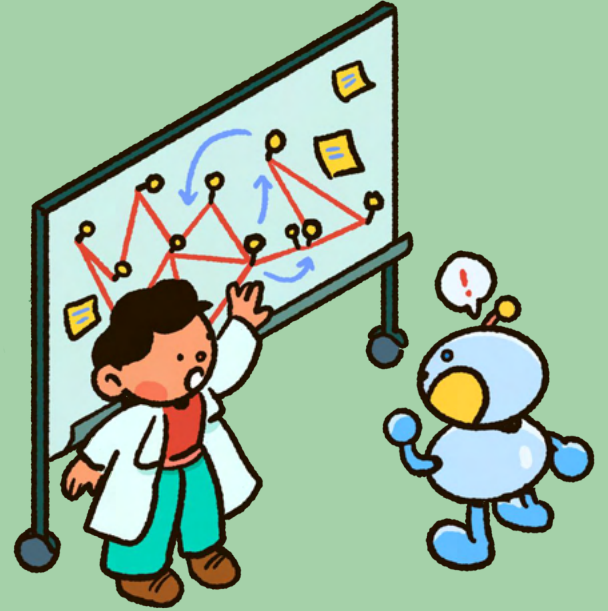
# There Are Many Types of Memory

- **Long-term memories** can last a lifetime.
- It can be further broken down into two categories.
  - **Declarative memory** (explicit) is the memory of facts, data, and events.
  - **Non-declarative memory** (implicit) involves unconscious recall.



# There Are Many Types of Memory

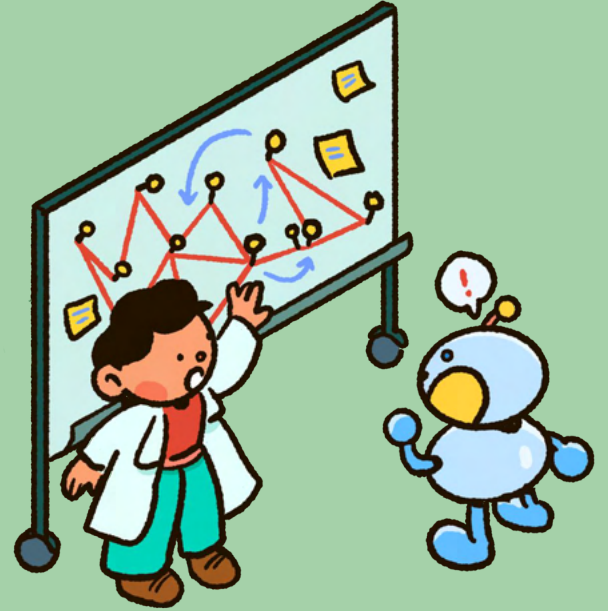
- **Short-term memory** is what's actively in, and on, your mind right now.
- Short-term memory has a small capacity and can only hold onto memories for a few seconds or minutes.





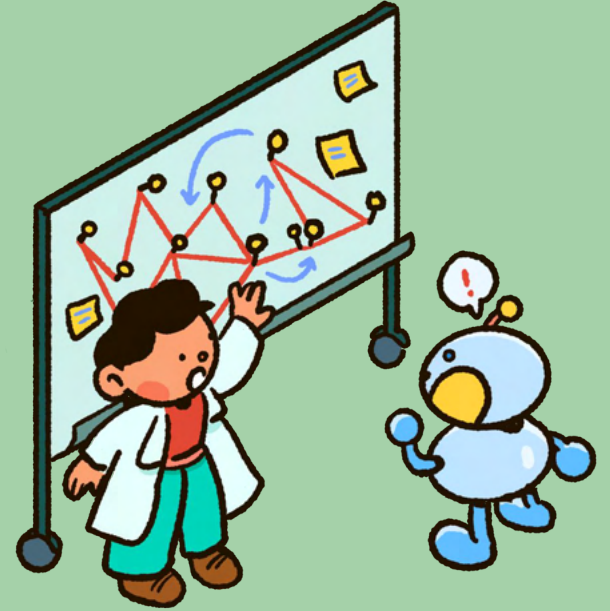
# Sleep Helps Your Brain

- The **hippocampus** is where information is gathered and stored.
- It is also involved in consolidating short-term memory into long-term memory.



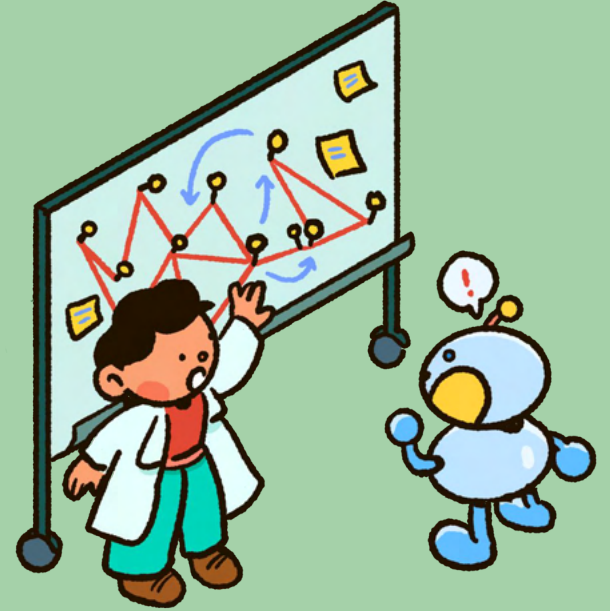
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- Sleeping after learning helps the hippocampus process short-term memories.
- During deep sleep, the information is transferred from the hippocampus to the **cortex**, which stores information as long-term memories.



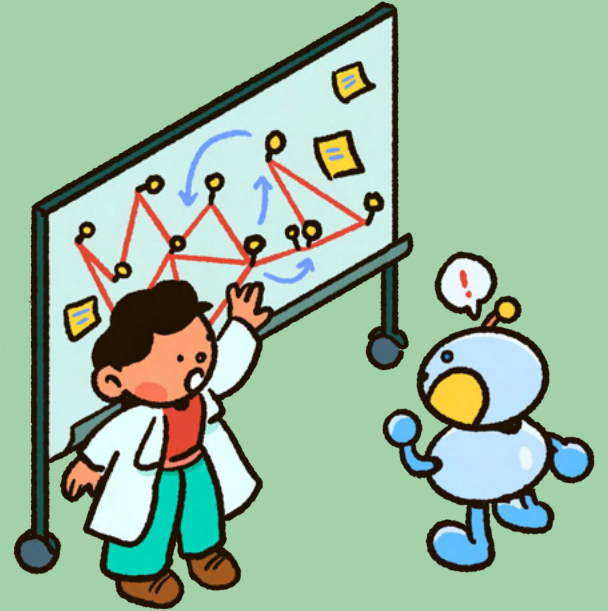
# Sleep Helps Your Brain

- Without a good night's sleep, your brain won't absorb and store new information well.
- When you get enough sleep, eight to ten hours for teenagers and more for children, your brain will be ready to absorb lots of new information.



# Making Stronger Memories

- Want to use science to level up your studying?
  - Make connections
  - Ask and answer questions
  - Organize
  - Take breaks
  - Prioritize sleep
  - Avoid “illusions of learning”
  - Be an “active” note taker

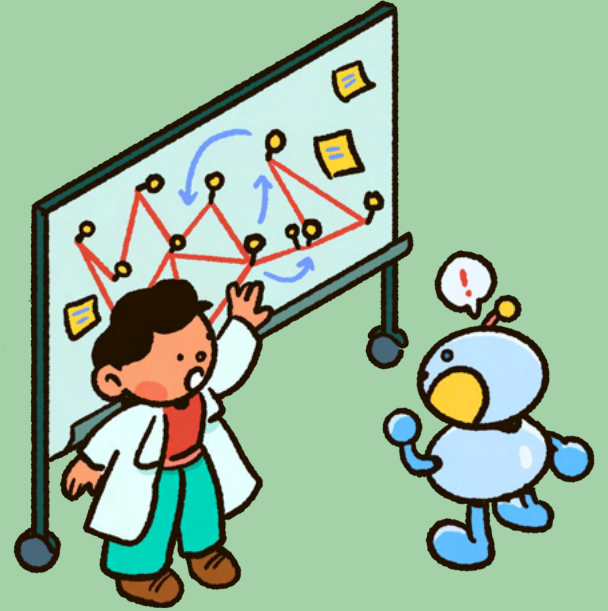


# Try This: Study Habits



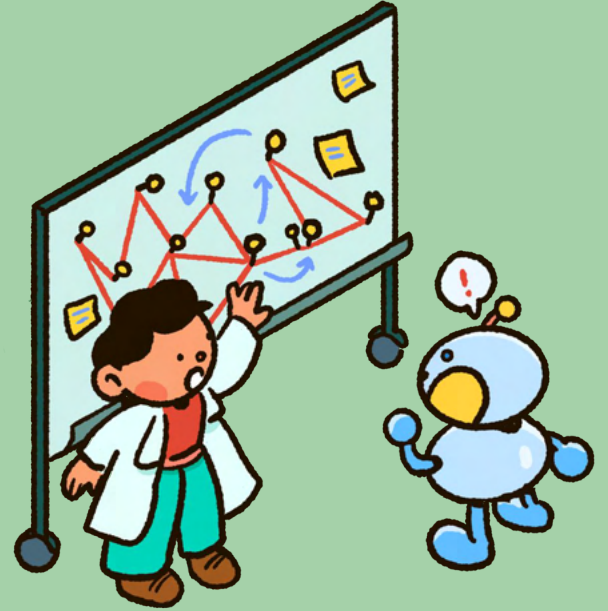
# Share out!

- *What would you add to the list of tips for studying?*
- *What helps you remember important things?*



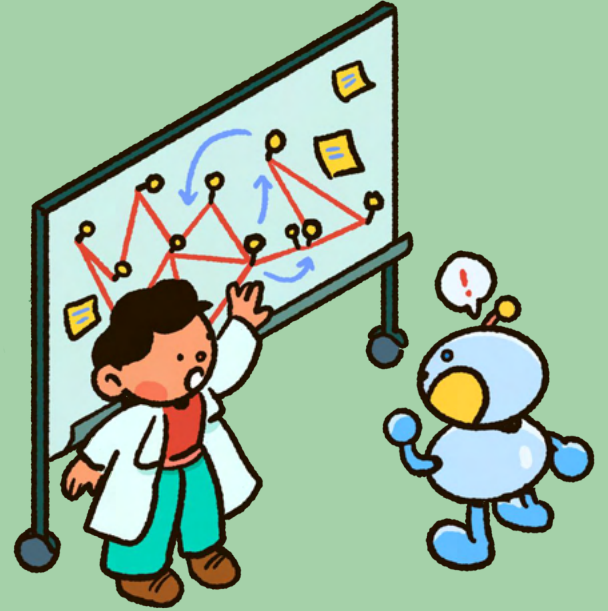
# Challenge Time!

- You are about to do a small short term memory test.
- A few letters will flash on the screen for 3 seconds.
- Your job is to write down as many letters as you can remember after they disappear.



# Challenge Time!

- Find a piece of paper and pencil!
- START TEST!





# Challenge Time!

U M

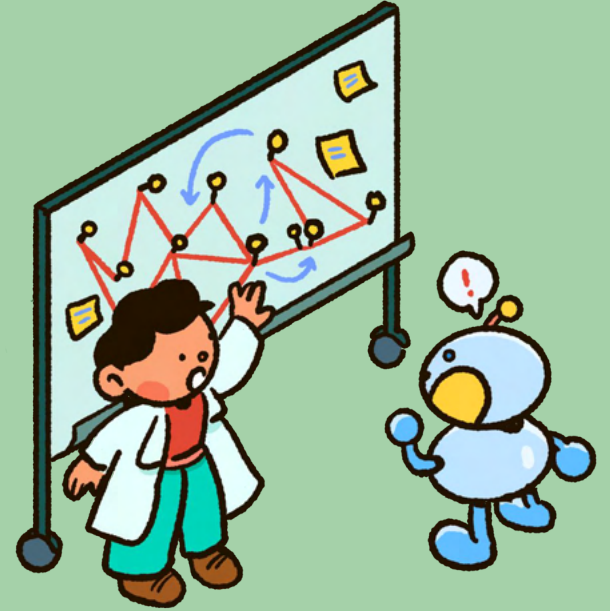
T Z L D

K X C E J O

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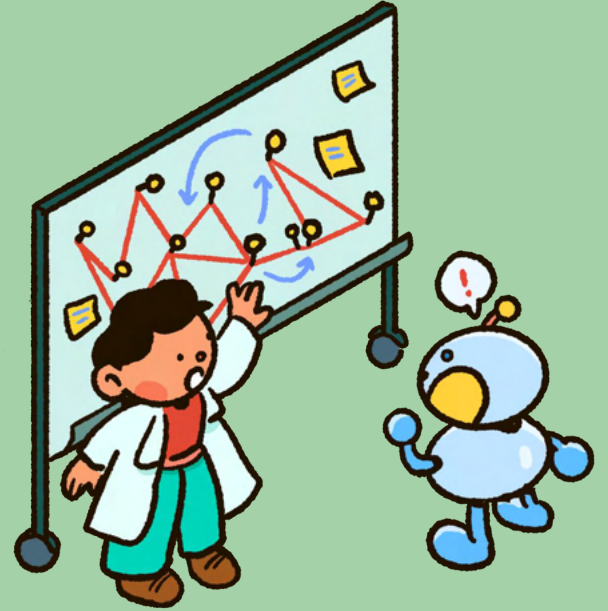
L B F Q R P M A U X

Z Q E C T B U M O N R V



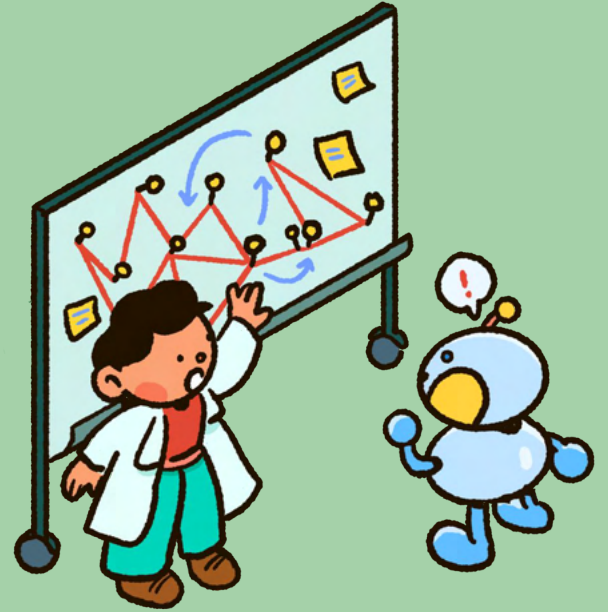
# Challenge Time!

- How many letters from each trial did you remember?
- Is there a "pattern" to the letters that you remembered?
  - Did you remember the first few letters better than the middle letters?
  - Did you remember the last letters?



# Brain Builder

- This puzzle demonstrates that memories are formed by creating connections.
- You must fold the paper, making connections, to reveal a completed image.
- Once you do, a secret code will be revealed.



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