

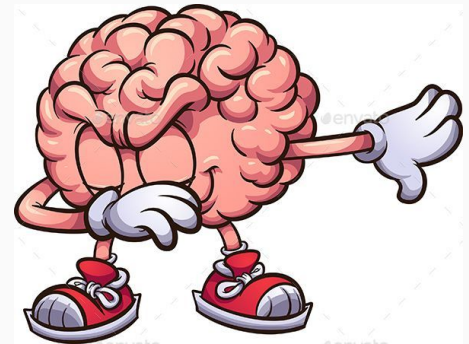
The Brilliant Brain

Week 8 - Recap



Week 1

- In our first week we discussed anatomy, we talked about the different branches of the nervous system and the different functions of the brain
- We talked about all the different parts of the brain, including the lobes, the brainstem, the cerebellum and what they all do!

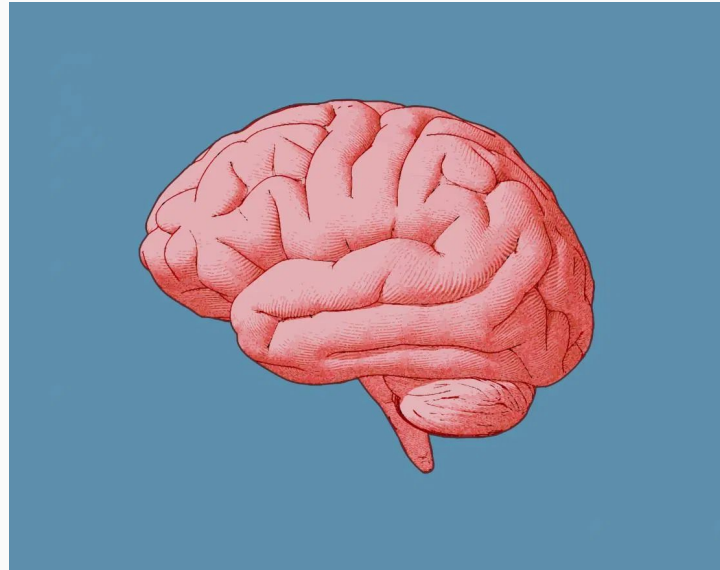


Test your knowledge:

- Can anyone remember how many lobes are in the brain, and what their names are?

Answer

- Each hemisphere of the brain contains four lobes:
 - Frontal lobe
 - Parietal Lobe
 - Temporal lobe
 - Occipital Lobe



Week 2

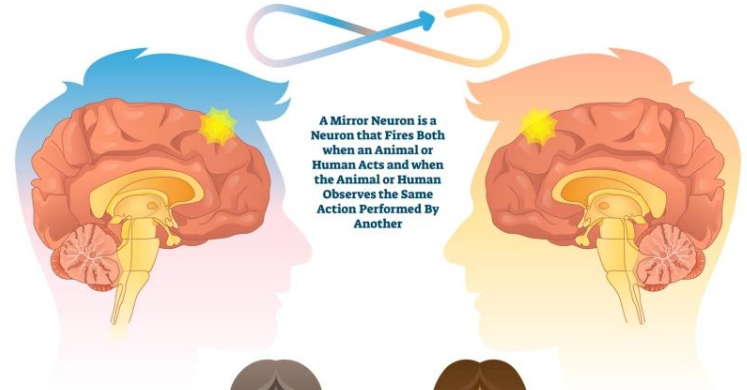
- In week 2 we talked about emotions
- We said that emotions are strong feelings deriving from one's circumstances, mood, or relationships with others.
- We discussed the ways in which someone portrays their emotions, such as in their facial expressions and body language



MIRROR NEURONS



- We also talked about mirror neurons, and how they help mimic the actions of those around us to improve relationships



A Mirror Neuron is a Neuron that Fires Both when an Animal or Human Acts and when the Animal or Human Observes the Same Action Performed By Another



Week 3

- In our third week we talked about different conditions that can affect our nervous system, such as **hydrocephalus, meningitis and spina bifida**.
- We also conducted an experiment to test our reflexes

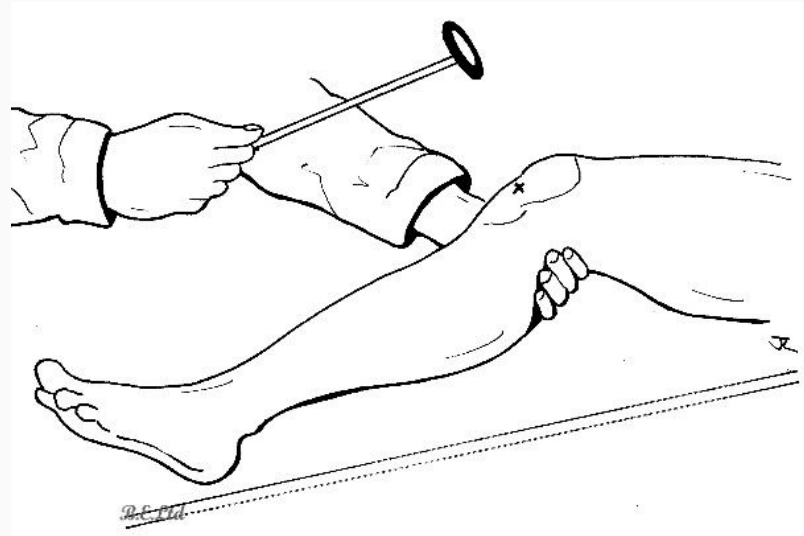
Question:

- Can anyone remember what this is and what we used it for?



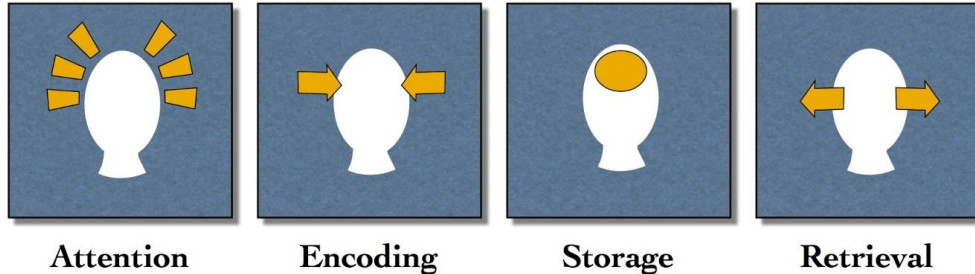
Answer:

It is a tendon hammer and we used it to test our patella (knee) reflex!



Week 4

- In our fourth week we talked about memory
- We learnt about how our brain only keeps the connections that are used regularly, in a process known as **“use it or lose it”**
- We talked about the way in which a memory is processed by the brain



Can anyone remember the different types of memory that our brain has?



Answer:

3 Different Stores

- 1.Sensory memory
- 2.Short-term memory
- 3.Long-term memory

We also talked about conditions that affect memory

- These included Dementia and Alzheimers, and the effect that they have on patients



Week 5 - Laughter and Stress

- In Week 5 we talked about what stress was, the effect that stress has on the body and things in our own lives that make us stressed.
- Can anyone remember some of the effects that stress can have on the body?

EFFECTS OF STRESS ON THE BODY



SKIN:

Changes in Skin Texture, Loss of Skin Tone, Loss of Moisture, Thinner & More Delicate Skin



IMMUNE SYSTEM:

Decreased Immunity



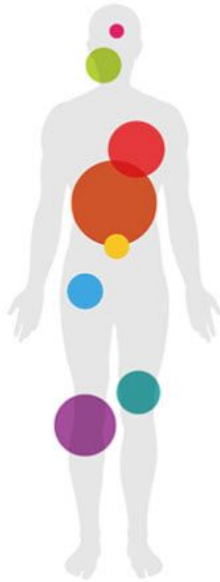
HORMONES:

Hormonal Imbalances, Increased Cortisol



BONES:

Decreased Calcium Absorption, Weakened Bones



BRAIN:

Fatigue, Reduced Concentration, Decreased Mood



HEART:

Increased Heart Rate, Elevated Blood Pressure



GUT:

Decreased Nutrient Absorption, Alterations in Gut Motility, Changes in Microbiome, Leaky Gut



MUSCLE:

Muscle Protein Breakdown

We also discussed laughter

- We talked about the parts of our brain that control laughter, the benefits of laughter and some experiments about laughter also.



In Week 6 we talked about biochemistry

- We discussed the role of DNA and briefly talked about genetics
- We also conducted an experiment, can you remember what experiment we did?



We extracted DNA from strawberries!



Last week we discussed Sleep

- We talked about the benefits of sleep, what happens when we don't get enough sleep and some conditions that affect our sleep.



Can anyone remember the different phases of sleep?



There are 4 stages of sleep:

- NREM Stage 1
- NREM Stage 2
- NREM Stage 3
- REM Sleep

I really hope you all enjoyed this course!

- It's such a shame we didn't get to finish the final two weeks together, but I really hope you all enjoyed your time and that you all gained an appreciation for this field!
- It was a pleasure getting to know you all and I hope to see you all again soon!

