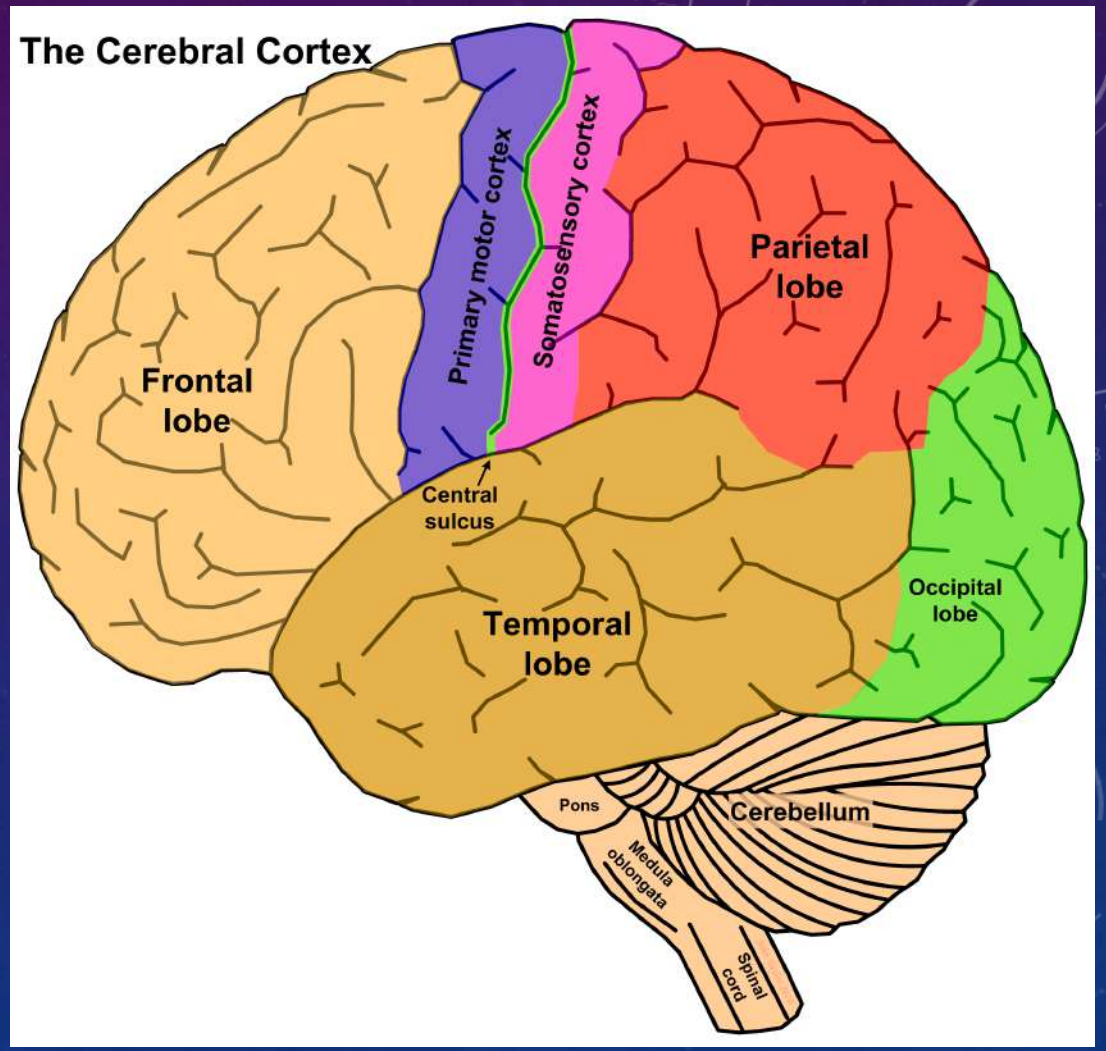
CHAPTER 3

PART 1

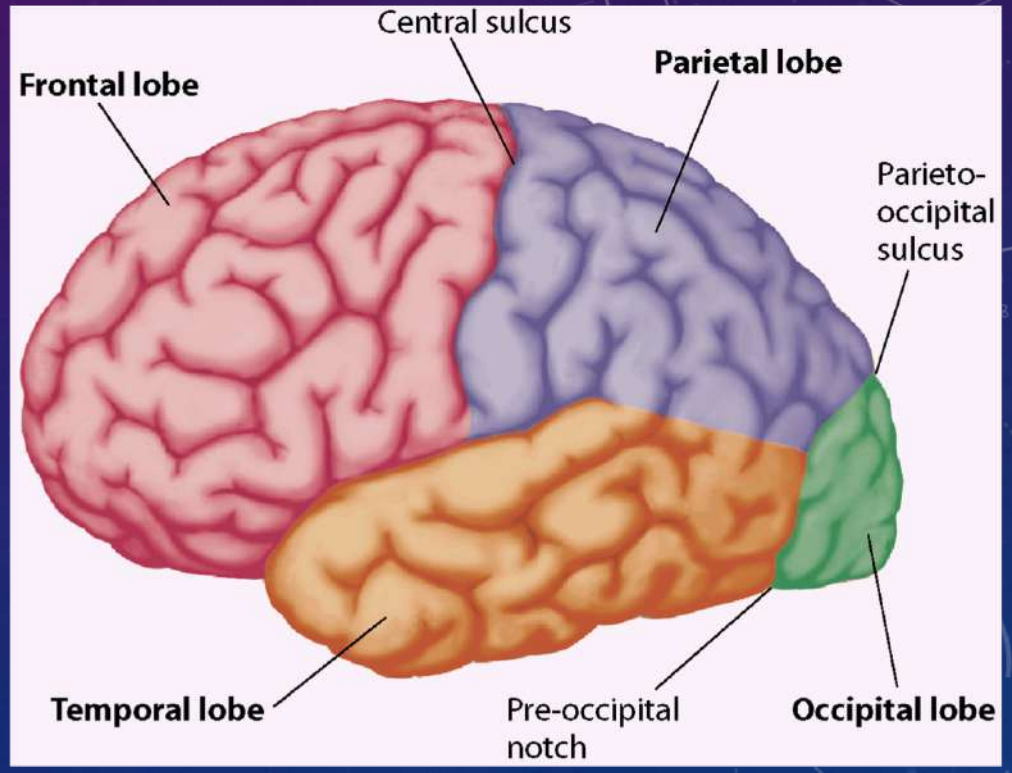
I. EXAMINING THE BRAIN

- The outermost layer of the brain is the cerebral cortex. It is the center of higher level thinking and has immense computing power.
- The brain is divided into two halves split by a fissure running down the middle. Connecting the two halves of the brain is the corpus callosum, that allows the two halves of the brain to communicate.



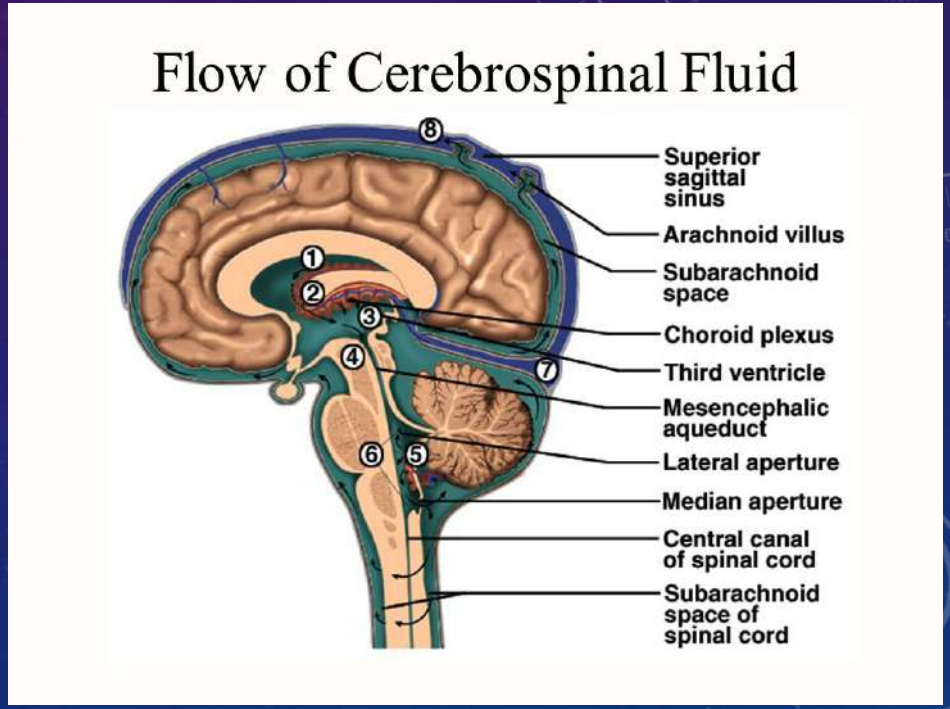
I. EXAMINING THE BRAIN

- The cerebral cortex is divided into 4 lobes, all separated by fissures. They are the frontal lobe, parietal lobe, occipital lobe, and the temporal lobe.
- Along the fissure separating the frontal and parietal lobe are the motor strip and sensory strip. The motor strip controls movement, and the sensory strip registers and provides all sensations.



I. EXAMINING THE BRAIN

- The brain sits in fluid that acts as a shock absorber to cushion it from potential damage. You get a concussion when the fluid can't prevent the brain from hitting the skull.
- While there are certain areas of the brain in charge of certain actions, there is also a lot of interactions between different areas of the brain when an action is done.



II. THE FRONTAL LOBE

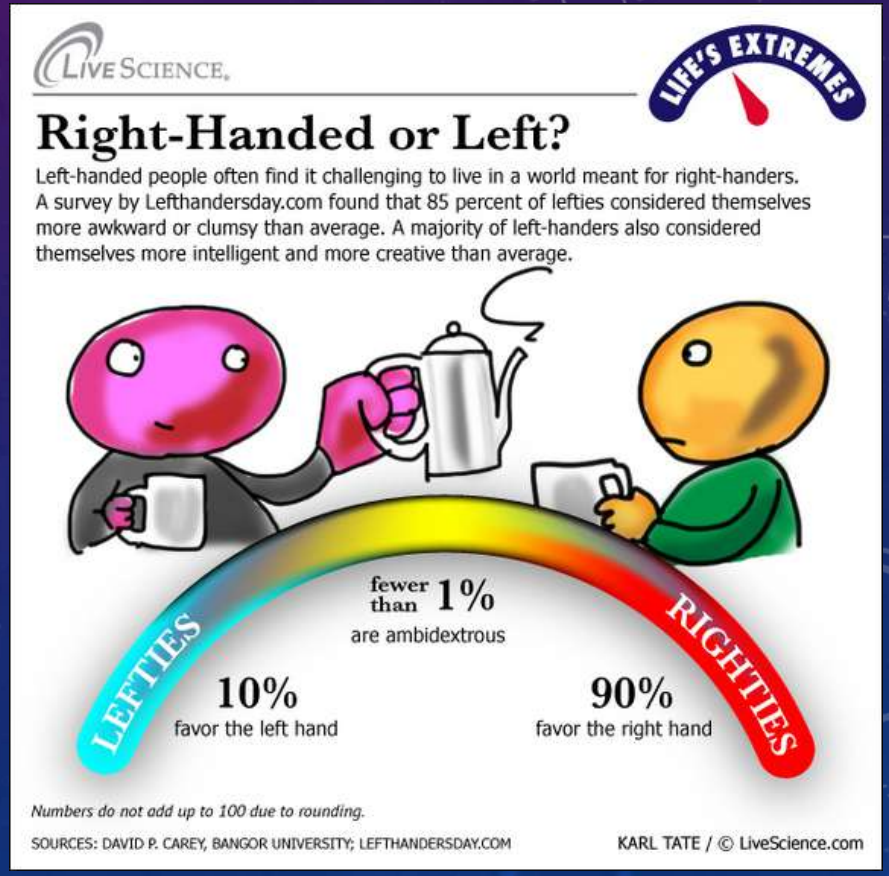
- In the frontal lobe there is the prefrontal area. This area allows us to remember the past and to put ourselves into the memory.
- The frontal association area interprets what is going on and what to do about it, and how to feel about it. It also seems to control our personality since that is where decisions are made.

II. THE FRONTAL LOBE

- Phineas Gage was a railroad worker that had a steel bar pass through his frontal lobe, which supposedly changed his personality but he was able to recover and survived for 12 years after.
- Two other areas near the frontal lobe are Broca's area and Wernicke's area. Broca's area allows us to create sentences and communicate, and Wernicke's area allows us to understand what is said.

III. HEMISPHERES AND HANDEDNESS

- One hemisphere of the brain controls the fine motor skills, and that determines whether you are right or left handed. The right hemisphere controls the left side, and vice versa.
- Being left handed is not an inherited trait, but it develops early on. Sometimes the shift is complete creating either a right or left handed person, sometimes it isn't and that person can be ambidextrous, or able to use both hands equally well.



IN YOUR NOTEBOOK

- Answer the following questions:
  - Which hand do you write with?
  - Which hand holds scissors?
  - Which hand holds a hammer?
  - Which arm goes into a jacket first?
  - Which hand is on top when you clap?
  - Which hand deals out cards?
  - Which foot kicks a ball?