The Brain

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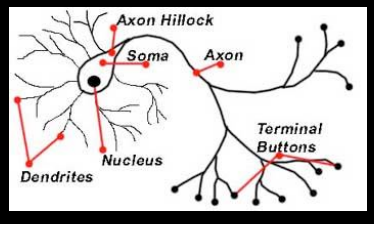
How it works..

- It controls the body temperature, blood pressure, and breathing.
- It collects informations around you, using the 5 senses.
- It handles physical movement.
- It allows you to think, dream, reason and experience emotion.

Neuron Structure

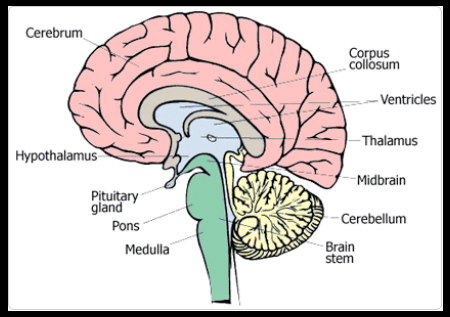
- The brain is made of 100 billion nerve cells, called neurons.
- Cell Body- contrians the main parts and necessary ocomponents of the cell.
- Axon- carries the electrochemical message along the lengths of the cell.
- Dendrites- these parts of the cells make connections with other cells and allow neurons to to talk to tother cells or perceieve the environment. Dendrites are located on both ends of the cell.



The Brain

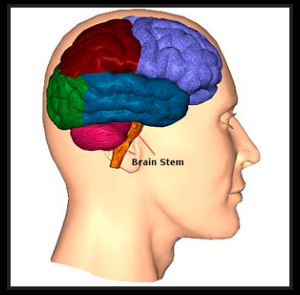
The brain has 5 main parts that work together..

- cerebrum
- cerebellum
- brain stem
- pituitary gland
- hypothalamus



Brain Stem

- The brain stem consists of the medulla, pons, and midbrain.
- The brain stem controls the reflexes and automatic functions.
- -the heart rate, blood pressure, limb movements and visceral functions (digestion, urination).



The Cerebrum

The biggest portion of the brain..

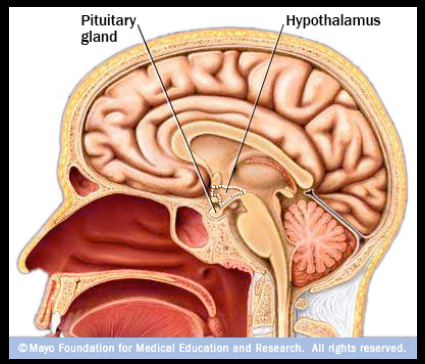
- The cerebrum is responsible for 85% of the weight of the brain.
- The cerebrum is the thinking portion of your brain, it controls the voluntary muscles.

The Cerebellum

- Integrates informations from the vestibular system.
- It indicates positions, movements, and uses data to coordinate limb movements.

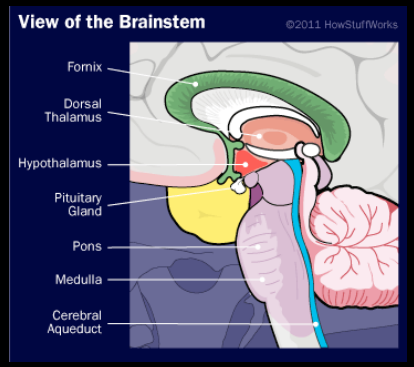
The Hypothalamus & Pituitary Gland

- Along with the hypothalamus the pituitary gland is responsible for visceral functions.
- It's responsible for body temperature, and behavioral responses. Such as..
- -feeding
- -drinking
- -sexual response
- -aggression



Lower Brain

- Medulla- Contains nuclei for regulation blood.
- Pons- Relay movement and position information to the cerebellum.
- Midbrain- Contains nuclei that links parts of the brain involved in motor functions.
- Thalamus- Relays incoming sensory pathways to the appropriate parts of the cortex.



- Parietal Lobe- Receives and processes all somatosensory input from the body such as pain and touch.
- Frontal Lobe- Uses motor skills such as speech and cognitive functions.
- Occipital Lobe- Receives and processes information from the eyes.
- Temporal Lobe- Processes auditory information from the ears.
- Basal Ganglia- Helps to coordinate fine motions, such as fingertip movements.
- Limbic System- Important for emotional behavior and controlling movements of visceral muscles.
- Hippocampus- Important for short term memory.
- Amygdala- Controls social and sexual behavior.
- Insula- Influences automatic functions of the brain.