

# THE BRAIN

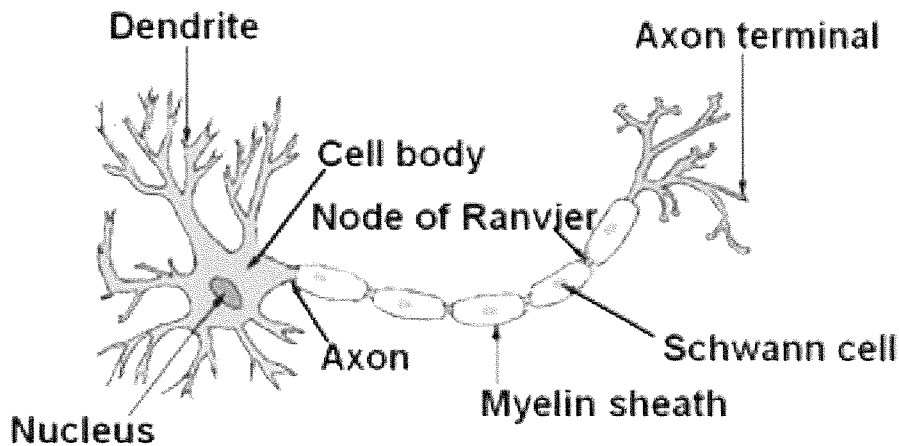
## Chapter 2 Lecture Notes

The brain= 3 pounds of fragile mass.

- 10 trillion cells in the brain
- **Neurons = cells**- these neurons do **THREE THINGS**:
  - 1) Receive Information
  - 2) Process Information
  - 3) Transmit info to rest of body
- **All behaviour begins with the actions of the neurons:**
  - 1) The neuron gathers incoming information at one end on the receptors of the dendrites.
  - 2) Then, the info is sent to the cell body (**soma**)
  - 3) It then combines with other information and is passed along within the neurons extended fiber which is called = **AXON** in the form of a nerve impulse or electrical charge.
  - 4) Impulses end up at the neuron's terminal buttons which release chemical messages to adjacent neurons.

**\*\* NO NEURONS TOUCH** so....these chemical messages must pass through the liquid gap known as a **SYNAPSE** or synaptic gap.

These messages sent between the synapse are called **NEUROTRANSMITTERS** and they release and fit on specific receptor sites on the dendrites membrane of the next cell. (like a key)



## TWO THINGS NOW COULD HAPPEN:

- 1) Synapses are **EXCITATORY**- that causes a nerve impulse to electrical charge. (action potential)
- 2) Synapses are **EXHIBITORY**- reduce or prevent impulses from happening. (depending on threshold)

\*\* Drugs can also excite or inhibit Neurotransmitters. Some include:

1. Acetylcholine
2. Endorphins
3. Dopamine
4. Serotonin
5. GABA
6. Norepinephrine
7. Glutamate

