Objectives

- To collect contact info from students.
- To briefly review the policies on the syllabus.
- To introduce the nervous system.
- Outline the major components of the Nervous System.
- To list the types of cells involved in the Nervous System.

Root Words

- Glial – support
- Astro – star
- Oligo – few
- Soma – of the body
- Dendr – branch

Nervous System

Functions:
- Sensory input - Receptors in sensory organs respond to stimuli.
- Integration - The brain makes decisions about information coming in.
- Stimulates Motor Output - Nerve impulses from CNS go to muscles/glands.

Components of the Nervous System

I. Central Nervous System (CNS)
   - Brain
   - Spinal Cord

II. Peripheral Nervous System (PNS)
   - Somatic
     - Autonomic (ANS) – “a law unto itself”
       > Sympathetic
       > Parasympathetic
Neurons
Cells that conduct electrical impulse within the nervous system.

These cells are found in:
- Brain
- Spinal cord
- Nerves

Types of Neurons
I. Afferent – carry nerve impulse (NI) towards the CNS. aka Sensory
II. Efferent – carry NI away from CNS. Related to motor neurons.
III. Interneurons – interconnections.

Associated Cell of the Nervous System
Neuroglia – small nerve cells that hold the nervous tissue together.
1) Astrocytes
2) Microglia
3) Oligodendrocytes
4) Ependymal
5) Schwann
6) Satellite
Myelin

- Fatty (protein-lipid) insulating sheath that surrounds nerve fibers i.e. axons and axon bundles.
- Role is to insulate and increase the speed of nerve impulse.
- Formed by Schwann Cells in PNS.
- Formed by Oligodendrocytes in CNS.