Nervous System
1. Central
    1. brain
    2. spinal cord
    3. integration & control
2. Peripheral
    1. sensory (afferent)
        1. somatic
        2. visceral
    2. motor (efferent)
        1. somatic (voluntary) - skeletal muscle
        2. autonomic (involuntary) - cardiac, smooth muscle, & glands
            1. sympathetic
                1. mobilizes body systems during emergency situations
            2. parasympathetic
                1. conserves energy
                2. promotes nonemergency functions
3. Nervous Tissue
    1. supporting cells
        1. CNS (neuroglia)
            1. astrocytes - exchange between capillaries & neurons
            2. microglia - phagocytes
            3. ependymal cells - line cavities & circulate CSF
            4. oligodendrocytes - myelin sheaths
        2. PNS
            1. satellite cells - protective, cushioning
            2. Schwann cells - myelin sheaths
    2. neurons
        1. anatomy
            1. cellular level
                1. cell body
                2. dendrites (towards)
                3. axons (away)
                4. axonal terminals - neurotransmitter release @ synapse
                5. figure
                6. recall myelin sheaths w/ gaps called Nodes of Ranvier
                7. neurilemma is portion of Schwann cell external to myelin sheath
            2. tissue level
                1. nuclei - clusters of cell bodies in CNS
                2. ganglia -clusters of cell bodies in PNS
                3. tracts - bundles in CNS
                4. nerves - bundles in PNS
                5. white matter - myelinated
                6. grey matter unmyelinated
        2. Classification
            1. functional
                1. sensory (afferent)
                    1. cell bodies in ganglia in PNS
                    2. receptors
                        1. cutaneous
                            1. naked nerve endings
                                1. pain
                                2. temperature
                            2. Meissner's corpuscle (touch)
                            3. Pacinian corpuscle (deep pressure receptor)
                        2. proprioceptors (root= one's own)
                            1. Golgi tendon organ
                            2. muscle spindle
                2. motor (efferent)
                    1. cell bodies in CNS
                    2. signals to viscera, muscles, & glands
                3. association or interneurons
                    1. connect motor and sensory neurons in pathways
                    2. cell bodies in CNS
            2. structural
                1. based on # of processes extending from cell body
                    1. multipolar
                        1. motor & association neurons
                        2. common
                    2. bipolar
                        1. only special sense (eye & ear)
                    3. unipolar
                        1. axon conducts in both directions
                        2. sensory PNS ganglia