

# Neurosensory Unit Part 1: A&P

## Class Preparation

A. Label the parts of the brain and identify the function of each part.

**Frontal lobe:** Involved in planning, decision-making, personality, and motor control

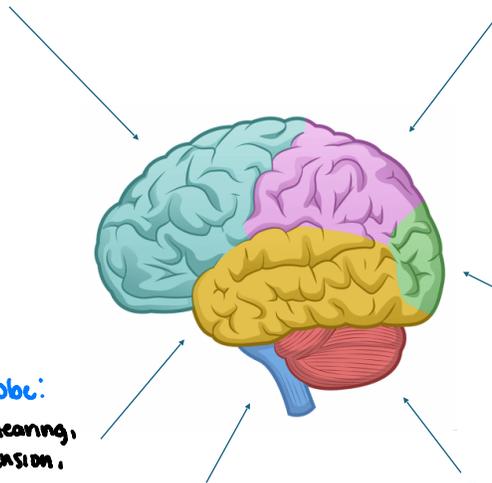
**Parietal lobe:** Process sensory information from the skin, muscles, and joints

**Temporal lobe:** Responsible for hearing, language comprehension, and memory

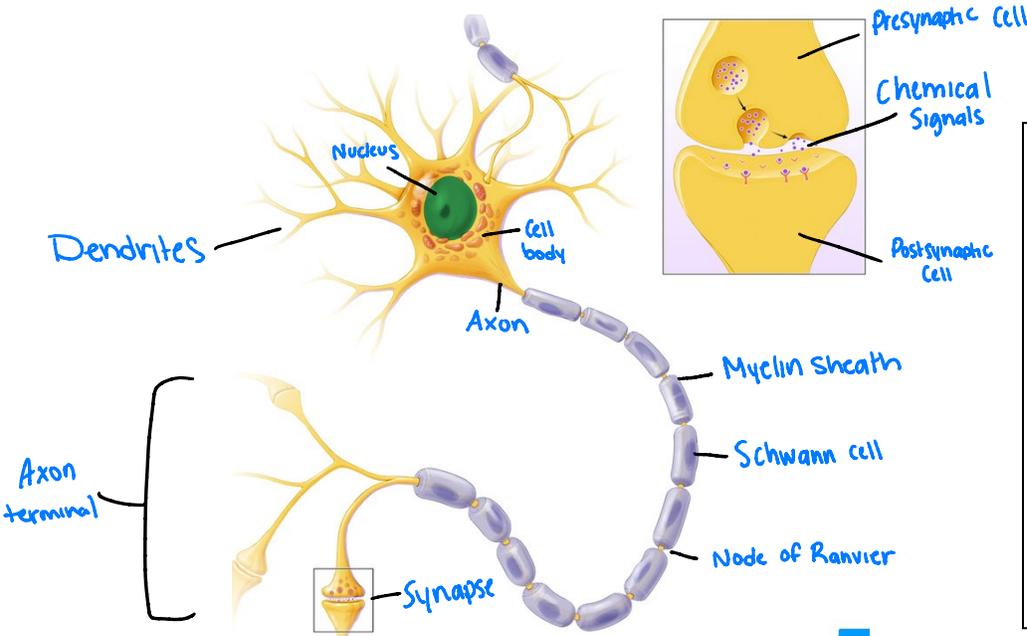
**Brainstem:** Connects brain to the spinal cord and controls vital functions such as breathing, HR, and digestion

**Occipital lobe:** Process visual information

**Cerebellum:** Coordinates muscle movement and maintains balance



B. Label the parts of the neuron:



1. Dendrites
2. Myelin sheath
3. Axon terminal
4. Node of Ranvier
5. Schwann's cells
6. Cell body
7. Nucleus
8. Axon terminals
9. Synapse
10. Chemical Signals (neurotransmitters)
11. pre-synaptic ("sending") cell
12. post-synaptic ("receiving") cell

C. Describe nerve impulse conduction, including action potential and neurotransmitters.

Nerve impulse conduction begins with an action potential, an electrical signal generated when a neuron's membrane depolarizes. Sodium ions rush in, making the inside more positive, followed by potassium ions exiting, restoring the resting potential. The action potential propagates along the axon through voltage-gated ion channels. When it reaches the axon terminal, it triggers the release of neurotransmitters into the synapse. These chemicals bind to receptors on the next neuron, continuing the signal transmission.