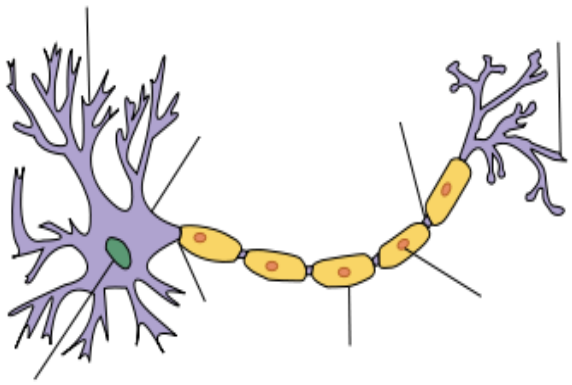
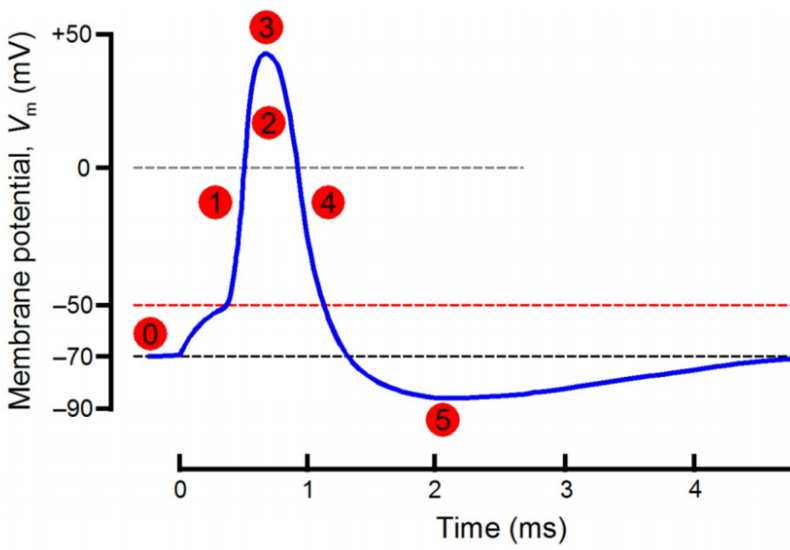
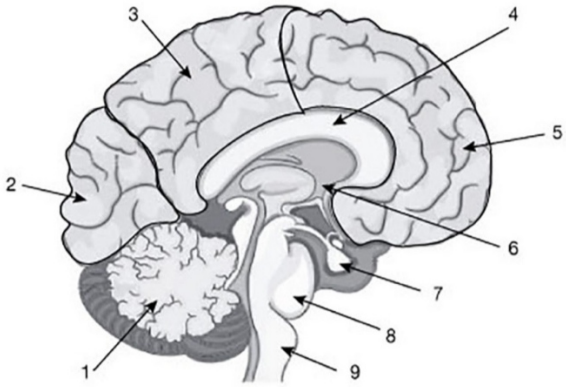
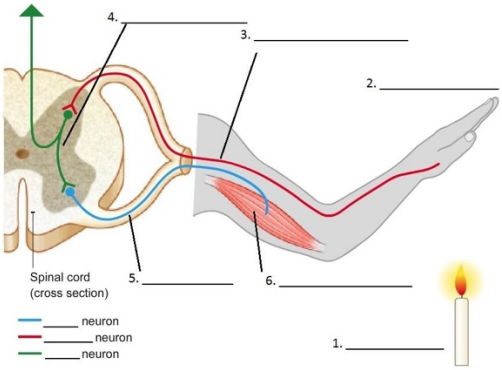
Nervous System Unit Review

1. Label the following diagrams









2. Matching: Nerve structure

A. Cell bodies. B. synaptic terminals. C. dendrites. D. axons

1. _____ carry action potentials to output terminals
2. _____ the cell's integration centre
3. _____ receive information from the environment
4. _____ sites where signals are transmitted to other cells
5. _____convert environmental information into electrical signals
6. _____bundled together into nerves
7. _____ initiate action potentials

3. Matching: Nerve functions

A. Threshold. B. action potential. C. resting potential. D. depolarization. E. repolarization

1. _____ always negative (around -70 mV) within a nerve cell
2. _____ a sudden positive charge within a nerve cell
3. _____ minimum change in voltage required to send action potential
4. _____ only sodium potassium pumps working
5. _____ due movement of potassium out of axon
6. _____ opening of more voltage gated sodium channels
7. _____ moving depolarization of a nerve cell

4. Matching: Autonomic nervous system

A. Sympathetic system. B. parasympathetic system. C. both systems. D. neither system

1. ____ prepares for fight or flight responses
2. ____ conducts messages between the environment and central nervous system
3. ____ speeds up heart rate
4. ____ associated with rest and digest activities
5. ____ dilates (opens up) pupils
6. ____increases urine and saliva production

5. Matching: Human Brain

A. Cerebellum. B. cerebrum. C medulla. D. brain stem

1. ____ hindbrain
2. ____ controls several autonomic functions
3. ____ forebrain
4. ____ receive input from all sense organs and "decides" which require attention
5. ____ controls learning, emotions and autonomic nervous system
6. ____ largest part of the brain
7. ____ ability to problem solve
8. ____ musical skills

6. Matching: Synapses

A. Axon terminal. B. dendrite. C receptor. D. neurotransmitter. E. cleft

1. ____ location neurotransmitters are stored
2. ____ location of ligand gated sodium channels
3. ____ location of reuptake pumps
4. ____ where action potential comes from
5. ____ gap between neurons
6. ____ inhibitory or excitatory

7. How are excitatory and inhibitory neurotransmitters different?
8. How are temporal and spatial summation different?
9. How are reflexes different than conscious thought?
10. How are white and grey matter different?
11. How are afferent and efferent nerves/pathways different?
12. How are depolarization and repolarization different?
13. How are absolute and relative refractory periods different?
14. How are somatic and autonomic nervous systems different?
15. How are the cerebellum and cerebrum different?
16. How are frontal and temporal lobes different?