**Nervous System**

1. Make a tree diagram using these terms:

Central Nervous System (CNS)

Peripheral Nervous System (PNS)

Brain

Spinal Cord

Motor Neurons

Sensory Neurons

Somatic Nervous System

* voluntary movements via skeletal muscles

Autonomic Nervous System

* organs, smooth muscles

Sympathetic

* - “Fight-or-Flight” responses

Parasympathetic

* - maintenance

2. Name 5 parasympathetic and 5 sympathetic actions of the nervous system.

3. Name 3 things glial cells are responsible for.

4. Is an astrocyte a type of neuron or glial cell?

5. What is the function of astrocytes?

6. Draw one between a neuron and capillary (blood vessel).

7. What are some functions of neurons?

8. What are the three primary types of neurons?

9. Draw a sensory nerve, including nucleus, dendrites, terminal endings, direction of action potential, which end is connected to the CNS, and what type of tissue may be at the other end. Is this efferent or afferent?

10. Complete the previous question for a motor nerve.

11. Where are interneurons?

12. What is the purpose of the myelin sheath? What disease is the result of a breakdown in the myelin sheath?

13. Explain the withdrawal reflex.

14. What happens at the synapse?

15. What is the function of: acetylcholine (ACh), dopamine, serotonin, norepinephrine, GABA (gamma-aminobutyric acid), glutamate

16. What does it indicate (what specific diseases) when one of the neurotransmitters above is too high or low in levels?

17. How many senses do humans have? What are the primary senses?

18. What other senses do humans have and provide a very brief description of each.

19. What are some senses that some animals have that humans do not?

20. Describe the pathway of sound waves through the ear until it becomes a signal we comprehend in the brain.

21. What are the 3 inner ear bones?