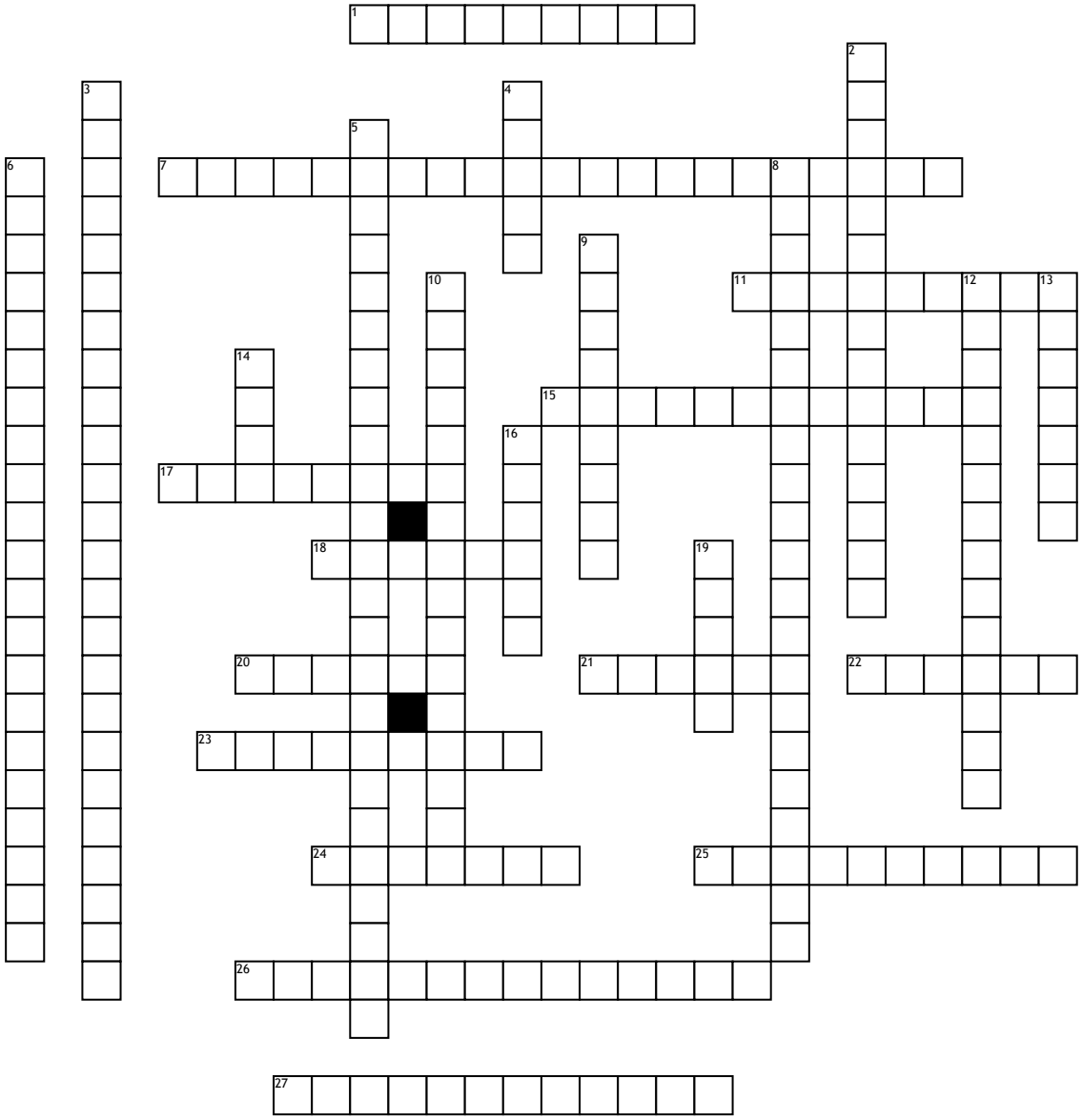
Name: _____ Date: _____

Neuroanatomy Ch. 4 Vocabulary



Across

1. The moving of a substance from point A to point B. May be passive (i.e., no energy expended) or active (i.e., energy expended) in nature.

7. Top-down or descending (i.e. brain to the body) motor communication.

11. An abnormal massing of cells.

15. Peripheral nervous system cells that produce and coat axons in myelin.

17. A sloping or imbalance of some sort.

18. A group of tissues that together carry out certain functions (e.g., heart, brain).

20. A group of organs that together carry out certain functions (e.g., circulatory, digestive, reproductive).

21. A fatty, white coating that covers axons and aids neural transmission.

22. A nervous system cell with specialized projections that transfers information throughout the body via an electrochemical process.

23. A neurite that receives signals and sends them to the neuron's cell body.

24. An abnormal mass of nerve tissue.

25. A nervous system cell that anchors, nourishes, insulates, and protects neurons. Some may also play a role in neural transmission.

26. The balancing of charge and concentration gradients in an axon resulting in an action potential.

27. Multipolar neurons that connect to the body structures (e.g., muscles) involved with movement.

Down

2. A rapid change in membrane polarity, which moves or propagates like a wave down the axon.

3. The time after a neuron fires when it is unresponsive because sodium channels are inactivated.

4. Neurites that send signals away from the neuron's cell body.

5. The time when a neuron will respond to another stimulus, but that stimulus must be stronger than normal due to sodium channels still being in recovery mode.

6. A degenerative process that occurs after an axon is crushed or cut.

8. Bottom-up or ascending (body to the brain) sensory communication.

9. Substances that consist of two or more atoms held together by a chemical bond.

10. A chemical messenger that transmits messages through the synaptic cleft from the presynaptic membrane to the postsynaptic membrane.

12. Unipolar or bipolar neurons that connect to sensory structures in the body.

13. A connection between a neuron and another neuron, muscle, or gland.

14. A neuron's cell body.

16. A group of similar cells that come together to carry out certain functions (e.g., muscle tissue, nervous tissue).

19. The fundamental units of an organism.