

Human Biology



Per: \_\_\_\_ Date: \_\_\_ **Nervous System** Vocabulary Review Ρ Ρ А T S L Т R Н С А 0 U А А L R s т L L O S T S P T I C Ρ Υ NA A Е U Т F А Μ Μ S R Ρ U 0 F С Y S R А Е A т Ρ <sup>10</sup>S Y N A P T I С C L E F T Ň S L Н 0 т Е <sup>12</sup>CER E B R L F U M т Υ 0 ĥ 0 Т R А I N T E R N E U R O N Μ L <sup>16</sup>A s L 0 S Ρ s D U С c s ŝ Ŕ т S А U Е М N G Е Ř ESTI Т U L Ρ Ň т F U А Н R L L Y <sup>22</sup>H E M I SPH S C H L P Ν ERE Е A W N N L Е R S Т U 0 А N A L C O <sup>24</sup>S P С Х Е Μ T R D В L 25 H Y P O T H A L s AMU С L 0 L 0 R Υ Т M Ν 0 Ć <sup>28</sup>SOM<sup>29</sup>ATIC <sup>30</sup>NODESOFRA Ν т L Y NVIE R Е Е I Х А G А E R I P H E R A Ν 0 C P L А Ν Ν Е Е т M т L L <sup>35</sup>D E <sup>34</sup>B NDRI ENTRAL s R A IN TE <sup>36</sup>C А т Е С S D L <sup>38</sup>T R E <sup>39</sup>S HOLD Е M н M U В Е Е R Е Е L 0 А L Ν L т Ν А <sup>1</sup>S O D I U M A U T O N O M I C L L т s U 0 Е Ν н R Μ G R <sup>43</sup>C E L L B O D Y s central canal white matter grey matter dorsal root of spinal nerve ventral root of spinal nerve

## Across

- 6. POSTSYNAPTIC—This membrane contains receptors for neurotransmitters to bind to.
- **10. SYNAPTICCLEFT**—Space between axon terminal and next neuron (2 words).
- 12. CEREBRUM—Largest portion of the brain, the central processing area.
- 15. INTERNEURON—These nerve cells are located entirely within the CNS.
- **19. RESTING**—The \_\_\_\_\_\_ potential is the "normal" state for a nerve fibre.
- 22. HEMISPHERE—The cerebrum is separated into a left and right \_\_\_\_\_
- 23. SCHAWNN—Specialized cells that produce myelin.
- 24. SPINALCORD—Developed neural tube that is protected by vertebrae (2 words).
- 25. HYPOTHALAMUS—Constantly samples and responds to changes in the blood to maintain homeostasis within the body.
- 28. SOMATIC—Part of the peripheral nervous system that we do have control over (i.e. voluntary).
- **30. NODESOFRANVIER**—The gaps between the myelin sheath of a nerve fibre (3 words).
- 32. PERIPHERAL—This part of the system is comprised of two kinds of nerves responsible for collecting stimuli and conducting responses.
- 34. BRAIN—Main organ of the nervous system
- 35. DENDRITE—Part of neuron that conducts impulses towards cell body.
- 36. CENTRAL—This part of the system includes the brain and spinal cord.
- 38. THRESHOLD—The amount of a substance or stimulus required to cause an action potential.
- 41. SODIUM—When these gates open, the nerve fibre is depolarized.
- 42. AUTONOMIC—Part of the peripheral system we have no control over (i.e. involuntary).
- 43. CELLBODY—Part of neuron that contains the nucleus, which maintains the cell (2 words).

## Down

- 1. **PITUITARY**—Hypothalamus is considered the connection between the nervous and endocrine systems as it is associated with the release of hormones from this gland.
- 2. PARASYMPATHETIC—Subdivision of autonomic nervous system that promotes a relaxed body state.
- **3. THALAMUS**—Often referred to as the "sorting centre" as it directs impulses coming up the spinal cord to the appropriate region of the brain.
- 4. SALTATORY—The "jumping" of an impulse from one node to another is referred to as \_\_\_\_\_\_ conduction.
- 5. CORPUSCALLOSUM—Dense tissue that forms a bridge to conduct impulses from one side of the brain to the other (2 words).
- 7. **EFFECTOR**—The end of the reflex arc; can be either a muscle or a gland.
- 8. **NEUROTRANSMITTER**—These chemicals diffuse across the synaptic cleft to either inhibit or excite the next neuron.
- 9. POTASSIUM—When these gates open, the nerve fibre is repolarized.
- 11. SYMPATHETIC—This division of autonomic nervous system which promotes active body functions ("fight-or-flight").
- 13. FISSURE—Long groove that separates the two halves of the cerebrum.
- 14. **MEDULLAOBLONGATA**—At the top of the spinal cord, part this structure is dedicated to reflex actions (e.g. hiccupping or vomiting) that are responses from internal stimuli (2 words).
- 16. ACETYLCHOLINESTERASE—Enzyme which breaks down acetylcholine.
- 17. REFLEXARC—Basic functional unit of the nervous system; begins at receptor and ends at effector (2 words).
- 18. SPINAL—Humans have 31 pairs of these nerves.
- 20. NEURONS—Technical name for a nerve cell.
- 21. PRESYNAPTIC—This membrane contains calcium gates and is where the synaptic vesicles fuse.
- 26. MYELINSHEATH—Fatty tissue which covers some nerve fibres.
- 27. CRANIAL—There are 12 pairs of these nerves extending from the brain.
- 29. AXON—Part of nerve cell that conducts impulses away from cell body.
- **31. CEREBELLUM**—Portion of brain that provides smooth movements of muscles and ensures the body can maintain its sense of balance and coordination.
- 33. MEDULLA—Portion of the adrenal glands that releases adrenaline.
- 37. MENINGES—The CNS is protected from abrasion against the cranium and vertebrae by this set of three membranes.
- **39. SENSORY**—These neurons conduct impulses to the spinal cord.
- 40. MOTOR—These neurons conduct impulses from the CNS to an effector.