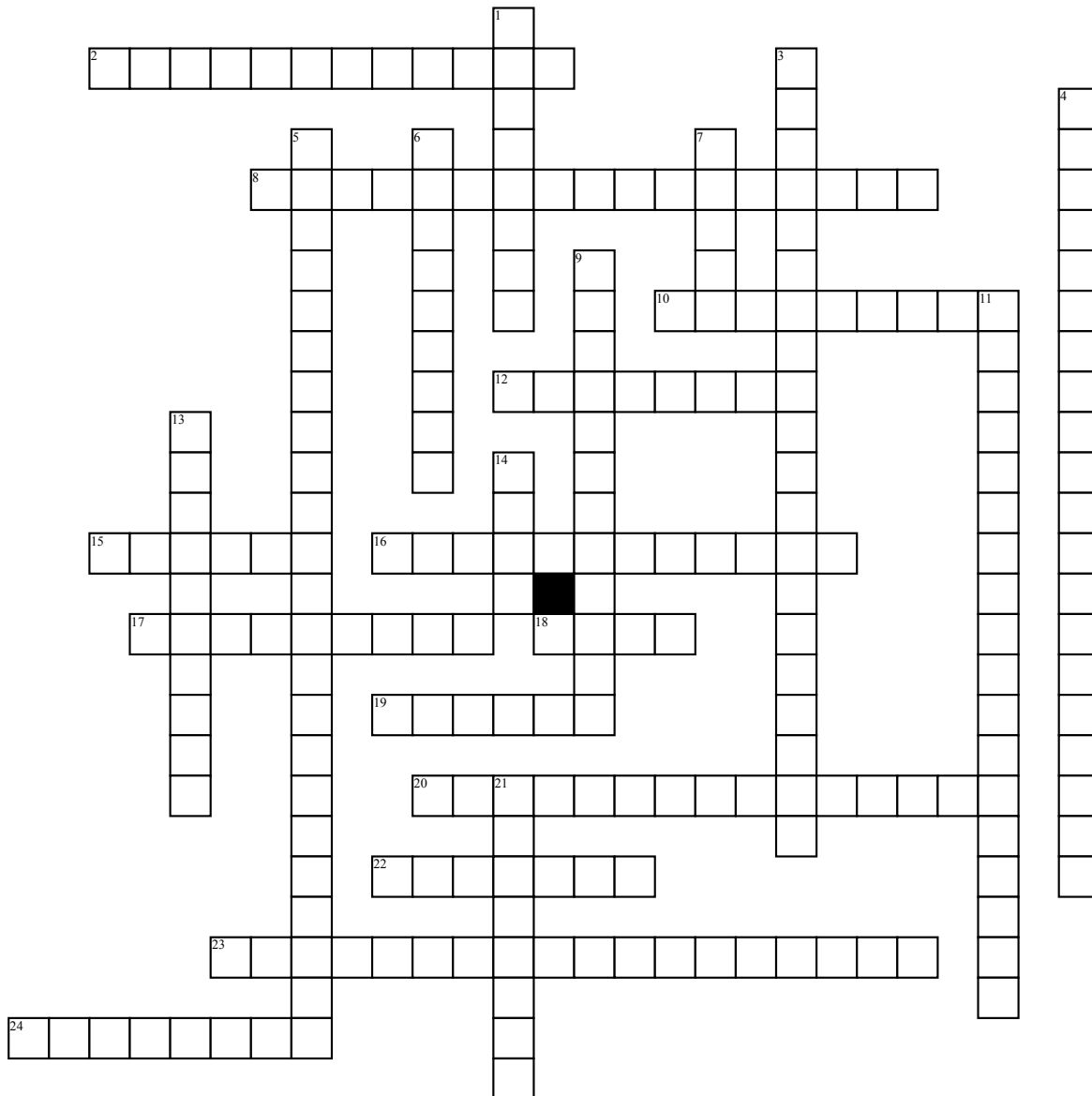


Name: \_\_\_\_\_

Date: \_\_\_\_\_

# Central Nervous System



## Across

- 2.** parts of the brain involved in emotions and sense of smell; plays key role in coupling sensory inputs to short- and long-term memory; consists of the hippocampus, the hypothalamus and several other structures
- 8.** difference in electrical charge between inside and outside of the plasma membrane
- 10.** impulse conduction route to and from the central nervous system; smallest portion of nervous system that can receive a stimulus and generate a response
- 12.** branching or tree-like nerve cell process that receives input from other neurons and transmits impulses toward the cell body (or toward the axon in unipolar neurons)
- 15.** lipoprotein substance in the myelin sheath around many nerve fibers that contribute to high speed conductivity of impulses
- 16.** important autonomic and neuroendocrine control center located inferior to the thalamus in the brain
- 17.** a cavity, such as the large, fluid-filled spaces within the brain or the chambers of the heart

- 18.** nonexcitable supporting cells of nervous tissue; formerly called neuroglia

- 19.** nerve cell, including its processes (axons and dendrites)

- 20.** nerve impulse, membrane potential of an active neuron

- 22.** membrane-to-membrane junction between a neuron and another neuron, effector cell, or sensory cell; function to propagate action potential

- 23.** located in the medulla where bits of gray and white matter mix intricately, this structure is involved in regulating input from sensory neurons, arousal, and motor control

- 24.** largest and uppermost part of the human brain that controls consciousness, memory, sensations, emotions, and voluntary movements

## Down

- 1.** fluid-containing membranes surrounding the brain and spinal cord

- 3.** division of the nervous system composed of the brain and spinal cord

- 4.** graphic representation of voltage changes in the brain tissue used to evaluate nerve tissue function

- 5.** nerves connecting the brain and spinal cord to other parts of the body

- 6.** part of the brain containing the midbrain, pons, and medulla oblongata

- 7.** bundle nerve fibers, plus surrounding connective tissue, located outside the brain and spinal cord

- 9.** "between" brain; parts of the brain between cerebral hemispheres and the mesencephalon, or midbrain

- 11.** plasma-like fluid that fills the subarachnoid space in the brain and spinal cord and in the cerebral ventricles

- 13.** second largest part of the human brain; plays an essential role in the production of normal movements

- 14.** in a neuron, the single process that extends from the axon hillock and transmits impulses away from the cell body

- 21.** mass of gray matter located in diencephalon just above the hypothalamus; helps produce sensations, associates sensations with emotions, and plays a part in the arousal mechanism