

Middle School Neuroscience Basics

Neuroscience · Answer Key · 10 Questions

1. What is the primary function of neurons in the nervous system?

- A) To store memories long-term
- B) To transmit electrical and chemical signals**
- C) To protect the brain from injury
- D) To produce hormones for growth

2. Which part of the brain is primarily responsible for balance and coordination?

- A) Cerebrum
- B) Brainstem
- C) Cerebellum**
- D) Hypothalamus

3. The central nervous system consists of which two main components?

- A) Brain and spinal cord**
- B) Brain and nerves
- C) Spinal cord and muscles
- D) Eyes and ears

4. What is the name of the gap between two neurons where signals are transmitted?

- A) Axon
- B) Dendrite
- C) Synapse**
- D) Myelin sheath

5. Which lobe of the brain is mainly involved in processing visual information?

- A) Frontal lobe
- B) Temporal lobe
- C) Parietal lobe
- D) Occipital lobe**

6. The peripheral nervous system includes all of the following EXCEPT:

- A) Cranial nerves
- B) Spinal nerves
- C) Brain**
- D) Autonomic nerves

7. When you touch a hot stove, which type of neuron quickly sends a signal to your spinal cord to withdraw your hand?

- A) Motor neuron
- B) Sensory neuron**
- C) Interneuron
- D) Receptor neuron

8. What is the main function of the cerebrum?

- A) Regulating breathing and heart rate
- B) Processing emotions and memory
- C) Controlling voluntary movements and higher-level thinking**
- D) Relaying sensory information to the cortex

9. Which part of the neuron receives signals from other neurons?

- A) Axon
- B) Cell body (soma)
- C) Dendrite**
- D) Terminal button

10. The myelin sheath around an axon serves what purpose?

- A) To connect neurons together
- B) To insulate the axon and speed up nerve impulse transmission**
- C) To produce neurotransmitters
- D) To receive incoming signals