

Nervous System & Neurons – Worksheet

Name: _____

Part A: Multiple Choice Questions (Circle the correct answer)

1. What is the main function of the nervous system?
 - a) To digest food
 - b) To support the body
 - c) To respond to changes and coordinate actions
 - d) To pump blood around the body

2. Which structures make up the **central nervous system (CNS)**?
 - a) Brain and nerves
 - b) Brain and spinal cord
 - c) Spinal cord and muscles
 - d) Nerves and sensory organs

3. The **peripheral nervous system (PNS)** is best described as:
 - a) The control centre of the body
 - b) Only the brain
 - c) Nerve cells that carry information to and from the CNS
 - d) Muscles and bones

4. Which nervous system controls **involuntary** processes such as heart rate and digestion?
 - a) Somatic nervous system
 - b) Central nervous system
 - c) Autonomic nervous system
 - d) Peripheral nervous system

5. Which of the following is an example of a **voluntary** action?
 - a) Breathing
 - b) Heart beating faster
 - c) Digesting food
 - d) Lifting your hand

6. Which type of neuron carries messages **from receptors to the CNS**?
 - a) Motor neuron
 - b) Relay neuron

- c) Sensory neuron
- d) Connector neuron

7. What is the function of the **myelin sheath**?

- a) To receive signals from other neurons
- b) To control the neuron
- c) To speed up nerve signal transmission
- d) To release chemicals

8. At a synapse, nerve signals are transferred using:

- a) Electrical currents only
- b) Blood cells
- c) Hormones
- d) Chemicals

Part B: Recall & Understanding (Short Answer)

9. What is the main function of the nervous system?

10. Name the two main parts of the nervous system.

- a) _____
- b) _____

11. Which organs make up the **central nervous system (CNS)**?

12. What is the role of the **peripheral nervous system (PNS)**?

Part C: Autonomic vs Somatic Nervous System

Part F: Synapses & Pathways

23. What is a synapse?

24. How does a nerve signal cross a synapse?

25. Complete the stimulus–response pathway using the correct neuron types.

Stimulus → _____ neuron → _____ neuron →
_____ neuron → Response

Part G: Application Question

26. A student touches a hot stove and quickly pulls their hand away.
Describe the pathway of the nerve signal from stimulus to response. Use the words:
sensory, relay, motor, CNS, muscle.

Extension:

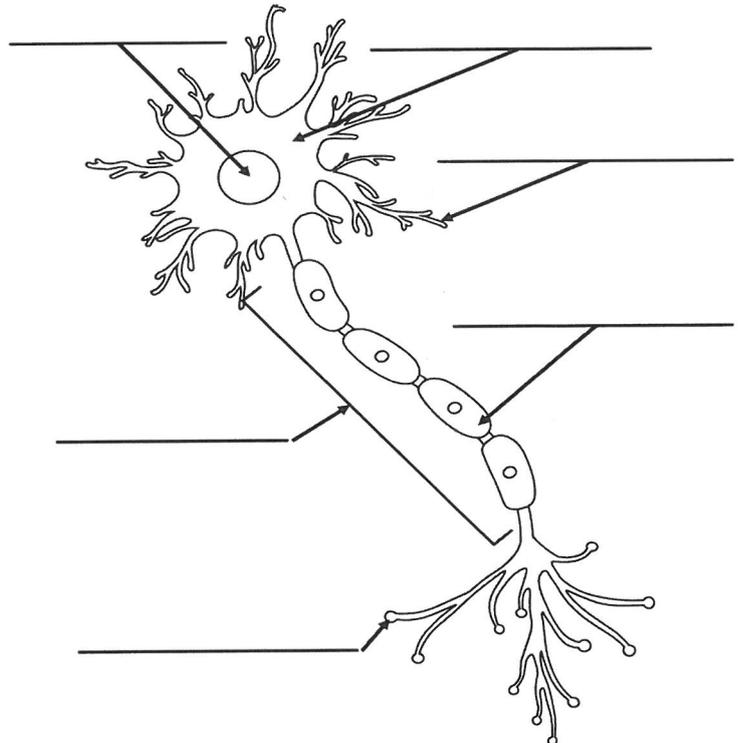
Explain why messages in neurons only travel in one direction.

20. Match each neuron type to its function.

Neuron Type	Function
Sensory neuron	a) Links sensory and motor neurons
Motor neuron	b) Carries messages from CNS to muscles and glands
Relay neuron	c) Carries messages from receptors to the CNS

Part E: Structure of a Neuron

21. Label the parts of the neuron.



- Soma (cell body)
- Dendrites
- Axon
- Myelin sheath
- Synapse

22. Match each structure to its function.

Structure	Function
Dendrites	a) Speeds up electrical signals
Axon	b) Receives signals from other neurons
Myelin sheath	c) Carries messages away from the soma
Soma	d) Controls the cell and provides energy

13. Circle the correct answer.

The **somatic nervous system** mainly controls:

- a) Involuntary responses
- b) Voluntary muscle movement
- c) Digestion and heart rate

14. List **two functions** controlled by the autonomic nervous system.

- _____
- _____

15. Complete the table.

Feature	Somatic Nervous System	Autonomic Nervous System
Type of control		
Type of response		
Example		

16. Name the two branches of the autonomic nervous system and describe each briefly.

- _____ : _____
 - _____ : _____
- _____

Part D: Neurons

17. What is a neuron?

18. How do neurons carry messages around the body?

19. List the **three types of neurons**.
