

Section 35–2 The Nervous System (pages 897–900)

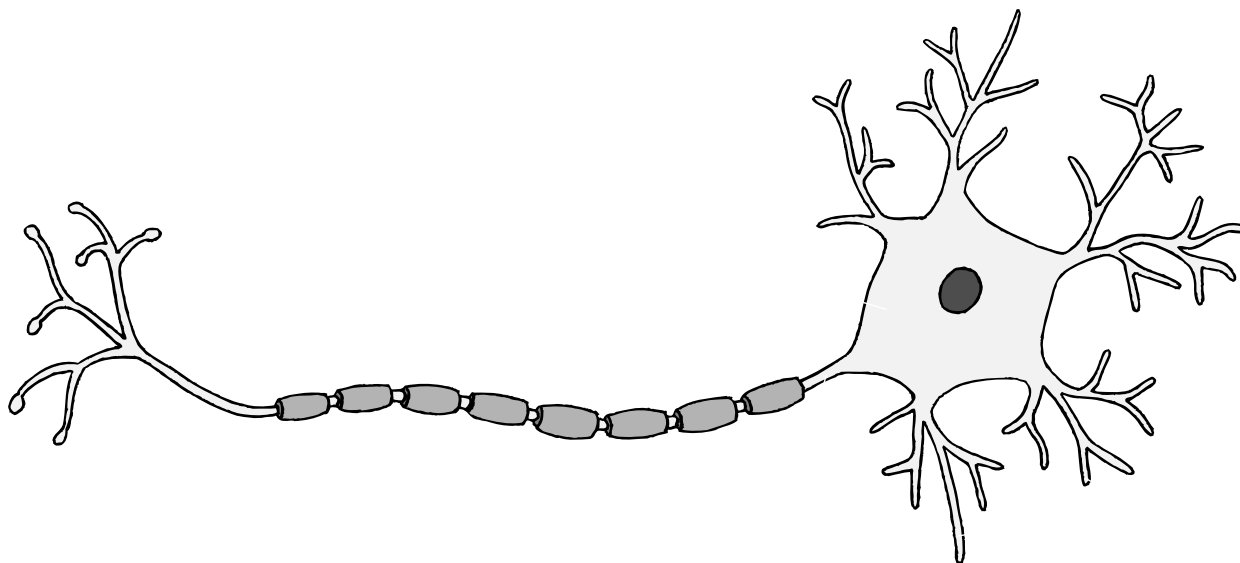
This section describes the nervous system and explains how a nerve impulse is transmitted.

Introduction (page 897)

1. What is the function of the nervous system? _____

Neurons (pages 897–898)

2. What are three types of neurons?
a. _____
b. _____
c. _____
3. Is the following sentence true or false? Sensory neurons carry impulses from the brain and the spinal cord to muscles and glands. _____
4. Label the following features in the drawing of a neuron: cell body, dendrites, and axon.



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5. What is the function of the myelin sheath? _____

The Nerve Impulse (pages 898–899)

6. The electrical charge across the cell membrane of a neuron in its resting state is called its _____.

Name _____ Class _____ Date _____

7. How does a nerve impulse begin? _____

8. Circle the letter of the choice that describes an action potential.
- a. Reversal of charges due to the flow of positive ions into a neuron
 - b. Increase in negative ions in a neuron due to the flow of potassium out of the cell
 - c. Change to a negative charge due to the flow of sodium ions out of a neuron
 - d. Reversal of charges due to the flow of negative ions into a neuron

9. The minimum level of a stimulus that is required to activate a neuron is called the _____.

10. How does a nerve impulse follow the all-or-nothing principle? _____

The Synapse (page 900)

11. Circle the letter of the term that refers to the location at which a neuron can transfer an impulse to another cell.

- a. axon b. dendrite c. synapse d. node

12. What are neurotransmitters? _____

13. Describe what happens when an impulse arrives at an axon terminal.

Reading Skill Practice

When you read about a complex process, representing the process with a diagram can help you understand it better. Make a diagram to show how a nerve impulse is transmitted from one cell to another. Do your work on a separate sheet of paper.