

## Section 35–3 Divisions of the Nervous System (pages 901–905)



**TEKS FOCUS:** 10A Functions of the nervous system; 10B Interrelationships of organ systems; 11B Response to external stimuli

*This section describes the major divisions of the nervous system and explains their functions.*

### Introduction (page 901)

1. What is the function of the central nervous system? \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

### The Central Nervous System (page 901)

2. The central nervous system consists of the \_\_\_\_\_ and the \_\_\_\_\_.
3. Is the following sentence true or false? Three layers of connective tissue known as meninges protect the brain and spinal cord. \_\_\_\_\_
4. The brain and spinal cord are bathed and protected by \_\_\_\_\_.

### The Brain (pages 902–903)

Match the part of the brain with its function.

Part of Brain	Function
_____ 5. Cerebrum	a. Coordinates and balances the actions of the muscles
_____ 6. Cerebellum	b. Regulates the flow of information between the brain and the rest of the body
_____ 7. Brain stem	c. Controls voluntary activities of the body
_____ 8. Thalamus	d. Controls hunger, thirst, fatigue, anger, and body temperature
_____ 9. Hypothalamus	e. Receives and relays messages from the sense organs

10. The two hemispheres of the brain are connected by a band of tissue called the \_\_\_\_\_.
11. Identify the four lobes of the brain.
 

a. _____	c. _____
b. _____	d. _____
12. Is the following sentence true or false? The left hemisphere of the cerebrum controls the body's left side. \_\_\_\_\_
13. Is the following sentence true or false? The outer layer of the cerebrum is called the cerebral cortex. \_\_\_\_\_
14. What is gray matter, and where is it found? \_\_\_\_\_  
 \_\_\_\_\_

15. The two regions of the brain stem are the \_\_\_\_\_ and the \_\_\_\_\_.

### The Spinal Cord (page 903)

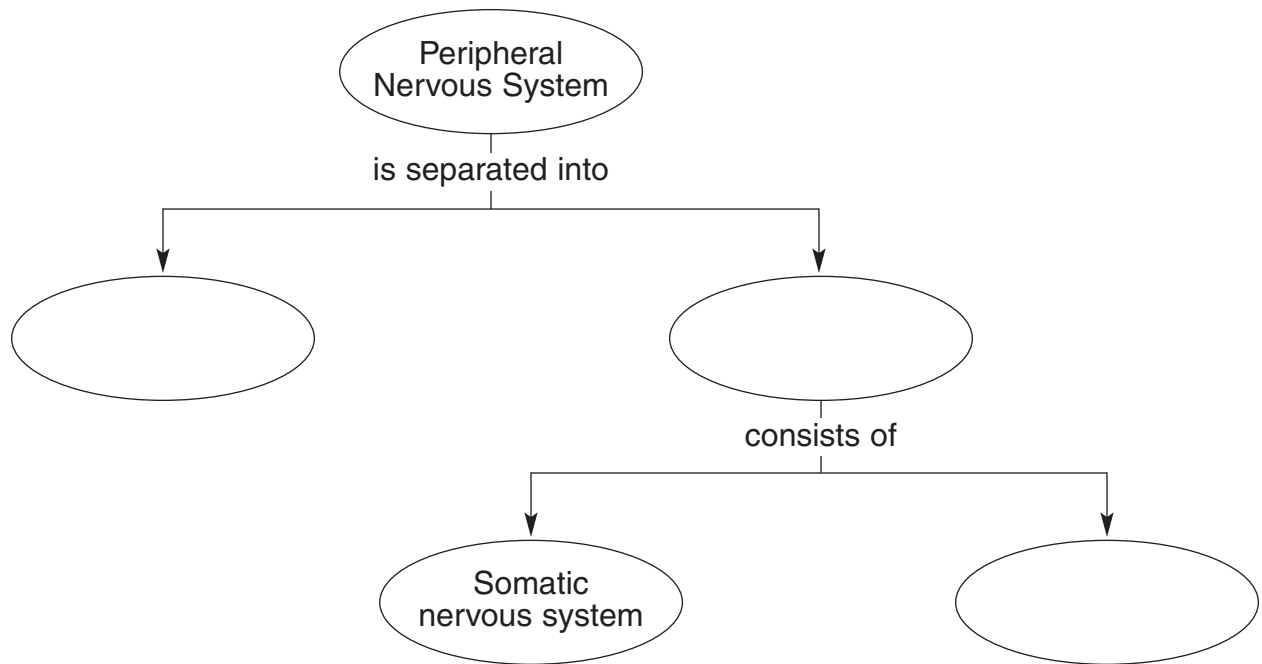
16. What is the advantage of a reflex? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

### The Peripheral Nervous System (pages 903–904)

17. Circle the letter of each choice that is part of the peripheral nervous system.

- a. cranial nerves
- b. spinal nerves
- c. ganglia
- d. spinal cord

18. Complete the concept map.



19. Circle the letter of each activity that is controlled by the somatic nervous system.

- a. Beating of the heart
- b. Lifting a finger
- c. Wiggling the toes
- d. Pulling foot away from tack

20. What does the autonomic nervous system regulate? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

21. Why is it important to have two systems that control the same organs?

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_