



Note-taking Worksheet

Control and Coordination

P. 600-617

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Section 1 The Nervous System

A. Your nervous system helps your body make adjustments to changes in your _____.

1. Stimulus—any change inside or outside your body that brings about a(n) _____
2. _____—the regulation of steady conditions inside an organism

B. **Neurons** are made up of a cell body and _____ called dendrites and axons.

1. _____ receive messages and send them to the cell body.
2. _____ carry messages away from the cell body.
3. Messages carried by nerve cells are called _____.
4. You have three kinds of nerve cells:
 - a. _____ nerve cells receive information and send impulses to the brain or spinal cord.
 - b. _____ relay the impulses from sensory nerve cells to motor nerve cells.
 - c. Motor nerve cells conduct impulses from the brain to _____ and _____ throughout your body.
5. Nerve cells do not touch each other, yet still pass _____ to each other.
 - a. A **synapse** is a(n) _____ between nerve cells.
 - b. When an impulse reaches the end of an axon, the axon releases a(n) _____.
 - c. This chemical flows across the synapse and relays the impulse to the _____ of the next neuron.

C. The **central nervous system** is made up of the brain and _____.

1. The _____ coordinates all of your body activities.
2. **Cerebrum**—the part of the brain that interprets impulses from the senses, stores _____, and controls movements
 - a. _____ takes place here.
 - b. _____ part of the brain
 - c. Outer layer is called the _____, which allows more complex thoughts to be processed.
3. _____—the part of the brain located behind and under the cerebrum
 - a. Interprets _____ from the eyes, ears, muscles, and tendons
 - b. Coordinates _____ muscle movements, maintains muscle tone, and helps maintain _____

Note-taking Worksheet(continued)

4. **Brain stem**—the part of the brain that extends from the cerebrum and connects it to the _____

- a. Made up of the midbrain, the pons, and the _____
- b. The midbrain and pons are pathways connecting different parts of the _____ with each other.
- c. The medulla controls _____ actions such as heartbeat, breathing, and blood pressure.

5. The _____ is made up of bundles of nerve cells that carry impulses to and from the _____.

D. The peripheral nervous system connects your brain and spinal cord.

to _____.

1. The somatic system controls _____ actions.
2. The autonomic system controls _____ actions.

E. Any _____ to the brain or spinal cord can be serious.

1. Injury to the spine can result in loss of muscle movement, called _____.
2. It is important to wear _____ when playing sports or riding in a car or on a bicycle.

F. Reflex—an involuntary, automatic response to a stimulus controlled by the _____

G. Drugs like alcohol and caffeine affect your _____.

1. Alcohol _____ the activities of the central nervous system.
2. Caffeine _____ the activity of the central nervous system.

Section 2 The Senses

A. Light rays, sound waves, heat, chemicals, or pressure that come into your personal territory _____ your sense organs.

B. Your body has _____ senses:

1. Vision
 - a. Light energy enters your eye, and the cornea and lens focus it onto the _____.
 - b. The light stimulates the _____ and _____, two types of cells found in your retina.