

7.3 The nervous system

Science understanding

FOUNDATION

STANDARD

ADVANCED

- 1 Select the correct terms from the box to label the parts of the nervous system (Figure 7.3.1) and the structure of nerves (Figure 7.3.2).

Parts of the nervous system

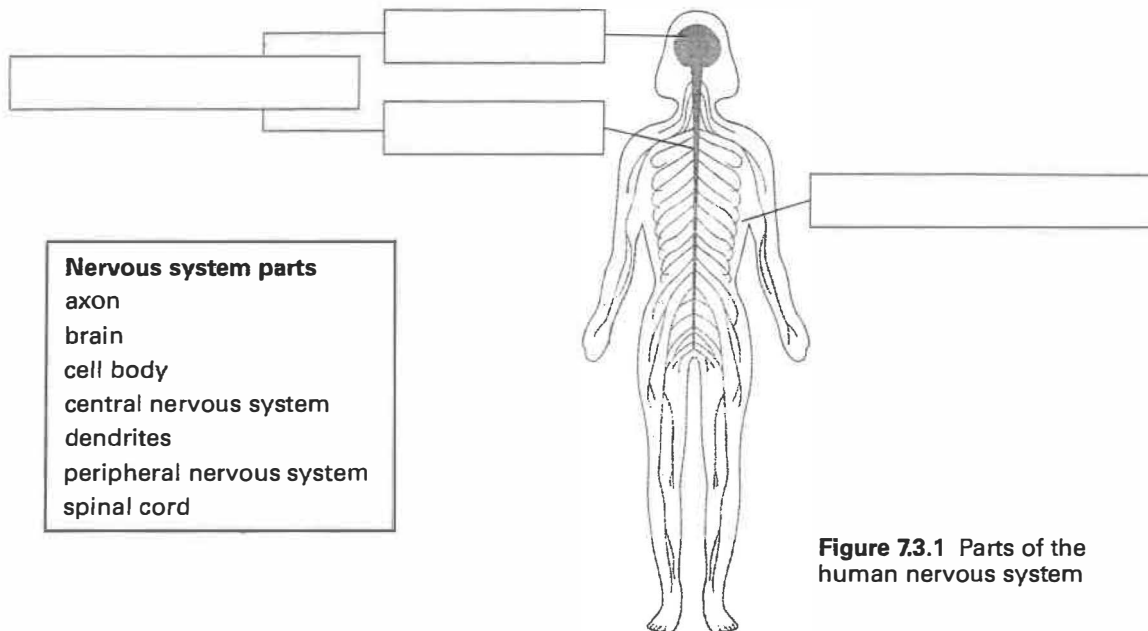


Figure 7.3.1 Parts of the human nervous system

The structure of nerves

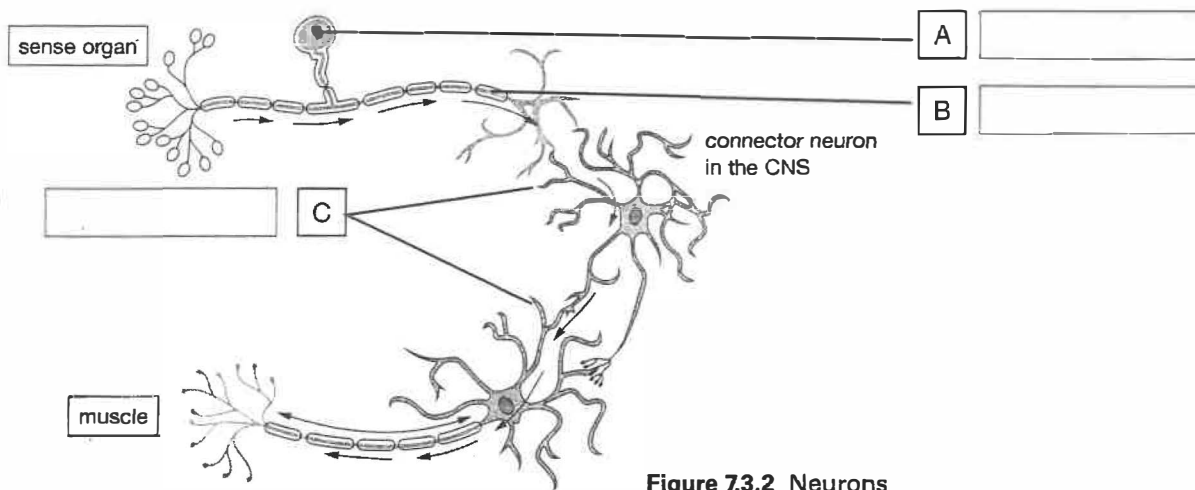


Figure 7.3.2 Neurons

- 2 Look at Figure 7.3.2, The structure of nerves, and complete the following labels.
- (a) Use arrows to show the direction of the nerve impulse.
 - (b) Label the sensory neuron and the motor neuron.
 - (c) Identify and circle two positions where there are synapses.

The nervous system

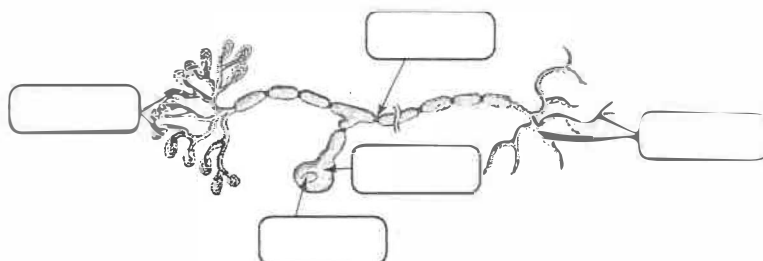
Student: Class:

Sensory neuron

1. (a) State the function of a sensory neuron.

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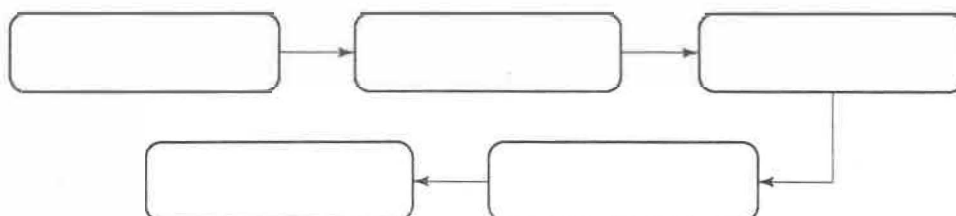
- (b) Use words from the list to label the diagram of a sensory neuron.

List: cell body; axon; dendrite; axon branches; nucleus

Sending an impulse

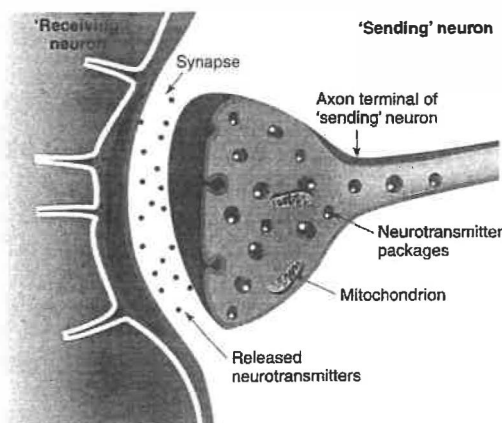
2. Complete the following flow chart about the transmission of messages in the nervous system by inserting words from the list.

List: effector; interneuron; motor neuron; receptor; sensory neuron



Neurotransmitters

3. The following diagram shows the synapse between two neurons. The lists of statements about the transmission of the nerve impulse across the synapse are jumbled. Use the code numbers to place the statements in the correct order.



Jumbled statements:

1. Neurotransmitter chemicals are released.
2. Neurotransmitters reach the dendrite.
3. An impulse travels along the axon.
4. Neurotransmitters cross the synapse.
5. The next neuron 'fires' and the impulse continues along the next neuron.
6. The impulse reaches the end of the axon.
7. The dendrite is stimulated by the neurotransmitting chemicals.

Correct order:

7.3 The nervous system

Science understanding

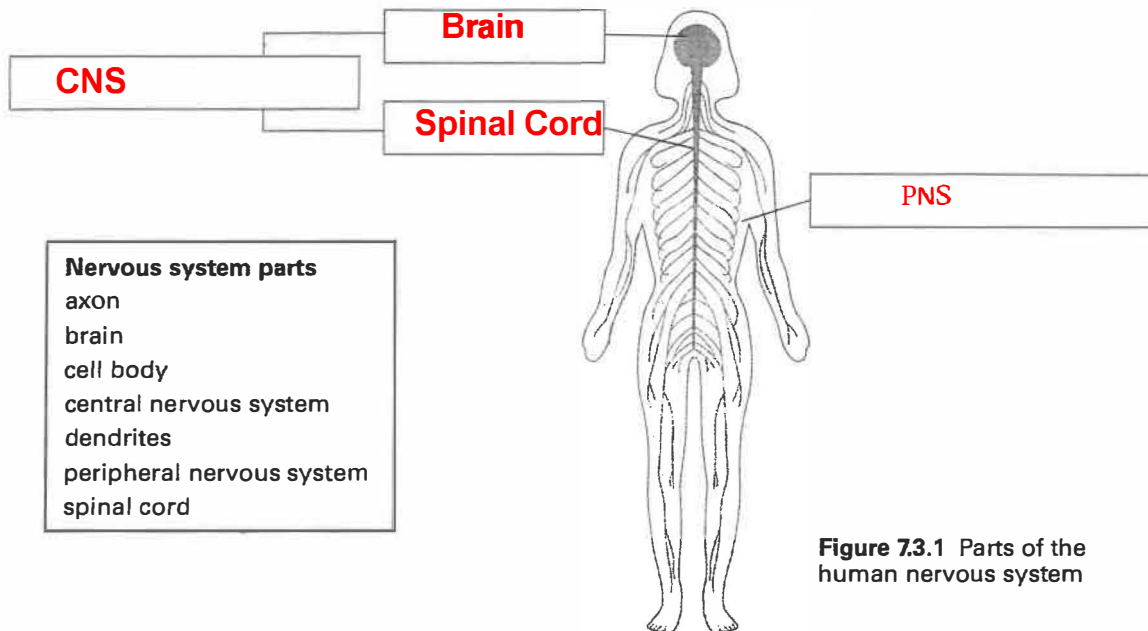
FOUNDATION

STANDARD

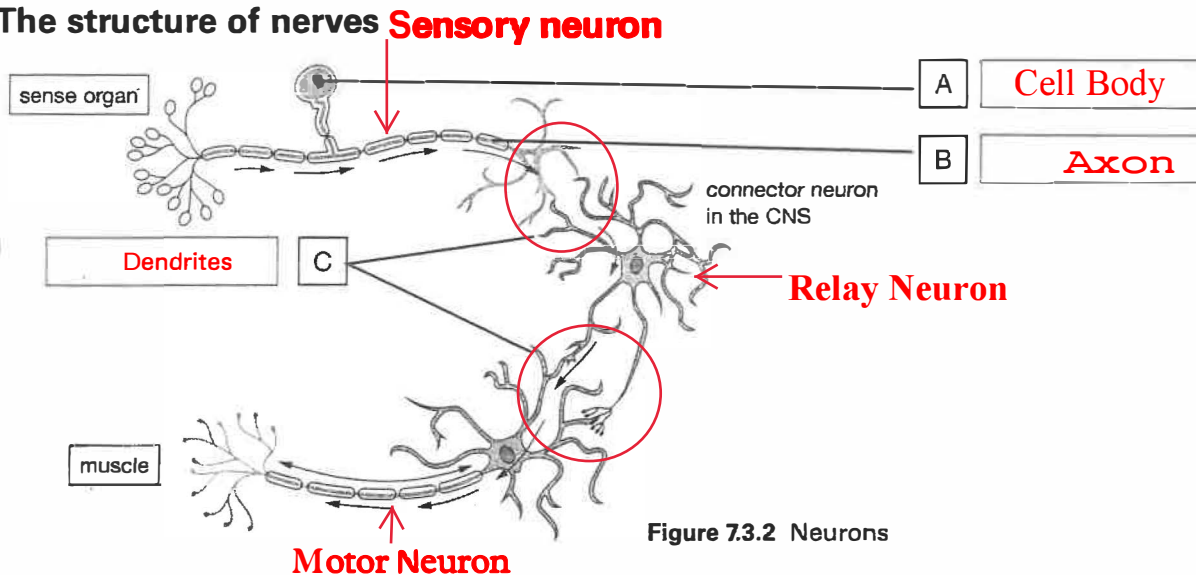
ADVANCED

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Parts of the nervous system



The structure of nerves



- 2 Look at Figure 7.3.2, The structure of nerves, and complete the following labels.
- Use arrows to show the direction of the nerve impulse.
 - Label the sensory neuron and the motor neuron.
 - Identify and circle two positions where there are synapses.

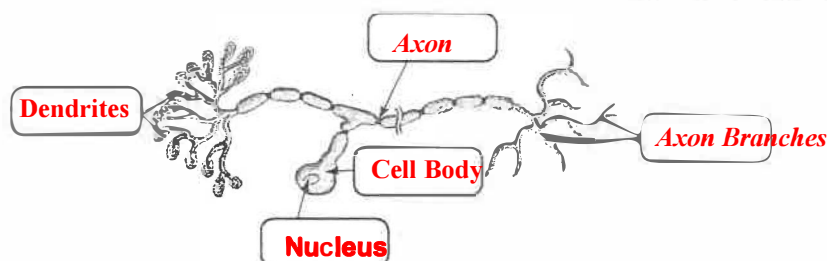
The nervous system

Student: Class:

Sensory neuron

1. (a) State the function of a sensory neuron.

Send electrical impulses



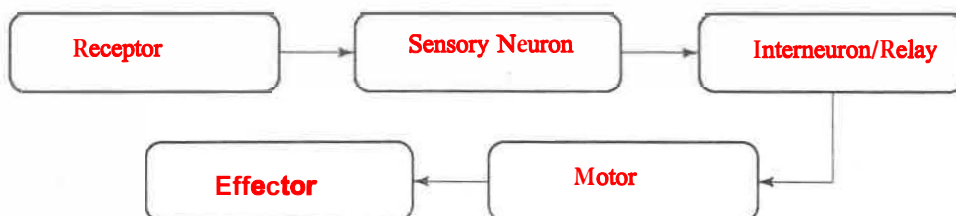
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Sending an impulse

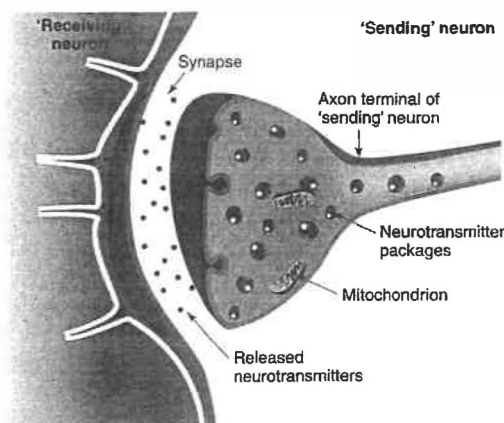
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