

## Structure and Function in Living Systems

### Brainpop—Nervous System

Name:

Period:

Watch the Brainpop on muscles, then answer the questions below. You can also use Chapter 17 of your textbook if you are getting stuck.

\_\_\_\_\_ 1. Tim says that the brain contains an “intricate network” of neurons. What is the best synonym for “intricate”?

- a. small    b. complex    c. simple    d. massive

\_\_\_\_\_ 2. What would be the best way to describe how neurons work in your body?

- a. like a remote control  
b. like an engine  
c. like telephone wires  
d. like a river

\_\_\_\_\_ 3. What might happen if your body lacked neurotransmitters?

- a. your nerve cells could not communicate with one another  
b. impulses could not travel along your nerve cells  
c. you would not be able to touch the objects that surround you  
d. your nerve cells would begin dying off

\_\_\_\_\_ 4. Which process is controlled by the autonomic nervous system?

- a. writing    b. chewing    c. running    d. heartbeat

\_\_\_\_\_ 5. Which of the following is an example of a reflex?

- a. drinking water  
b. pulling back after touching a hot object  
c. walking backwards  
d. throwing a ball

\_\_\_\_\_ 6. If an area of your body is particularly sensitive, what can you conclude about that area?

- a. it contains more skin cells than the rest of your body  
b. it contains more nerve endings than other areas of your body  
c. it conducts electricity better than other areas of your body  
d. it contains more neurotransmitters than other areas of your body

*Thinking Questions:*

\_\_\_\_\_ 7. Which of the following statements is true?

- a. your brain is involved in all of the actions your body performs  
b. the nerves in your body are connected together tightly  
c. there are gaps between many of the nerve cells in your body  
d. the somatic nervous system allows you to feel hot and cold sensations

\_\_\_\_\_ 8. Where in your body can you find nerve cells? Choose the best answer.

- a. in your brain  
b. in your spinal cord  
c. in your neurons  
d. everywhere



Moby certainly seems to enjoy poking Tim throughout the cartoon. If Tim had his eyes closed, how would he know if Moby was poking him? You must use the words **nerve**, **skin**, and **brain** correctly in your answer.

*turn over for an important diagram*

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A dog licks Tim's hand while he isn't looking. Tim instinctively pulls his hand back at the strange sensation. Use arrows to show the path of electrical impulses that cause Tim's hand to pull back.

