

PHYSIOLOGY
READING GUIDE NERVOUS SYSTEM CHPT 7

Name _____
 Date/Per _____

VOCABULARY:

- | | | |
|------------------------------|------------------------------------|---------------------------|
| 1. Stimuli | 8. Dendrites | 15. Brain Stem |
| 2. Central Nervous System | 9. Axons | 16. Cerebellum |
| 3. Peripheral Nervous System | 10. Synapse | 17. Diencephalon |
| 4. Sensory Nerves | 11. Myelin (Sheath) | 18. Meninges |
| 5. Motor Nerves | 12. Action Potential/Nerve Impulse | 19. Cerebral spinal fluid |
| 6. Neurons | 13. Reflex Arc | 20. Blood brain barrier |
| 7. Cell Body | 14. Cerebral Cortex | |

STANDARDS: * Not in the text book

1. Name and describe the functions of the two major STRUCTURAL divisions of the nervous system*
2. List the parts of a reflex arc and describe its function
3. Sketch and label several reflex actions
4. Sketch the structure of neurons and describe the function of each part (component)
5. Explain how a nerve impulse is conducted along a neuron as well as from one neuron to another using electrochemical signaling
6. Distinguish motor neurons, sensory neurons, and nerve bundles in histology*
7. Name the four major regions of the brain and state the function of each
8. Identify disorders of the nervous system and their causes such as Parkinson's disease, multiple sclerosis, tetanus, Alzheimer's, strokes, poliomyelitis
9. Describe each of the four types of protection of the CNS and how they offer protection.
10. Identify and describe the developmental differences of the teen-age brain.*

Class date (B/A)	Topics	Homework for this night, due next class unless noted.	
1/10-11	<ul style="list-style-type: none"> • Unit Handout • Intro Project • Notes 1 - Organization of NS • Google and your brain article 	<ul style="list-style-type: none"> • Reading guide • Multitasking 	
1/12-13	<ul style="list-style-type: none"> • Notes 2 – Brain regions • Histology • Project time 1 	<ul style="list-style-type: none"> • Brain Coloring and labeling 	
1/17-18	<ul style="list-style-type: none"> • Article – How we Learn • TED talk 	<ul style="list-style-type: none"> • Vocabulary 	
1/19-20	<ul style="list-style-type: none"> • Notes 3 – neuron structure and function • Jigsaw on N'Transmitters 	<ul style="list-style-type: none"> • Neuron coloring and labeling 	
1/23-24	<ul style="list-style-type: none"> • Neuromuscular junction and nerve transmission posters 	<ul style="list-style-type: none"> • Project notes 	
1/25-26	<ul style="list-style-type: none"> • Notes 4 – reflex arc • Reaction time lab 	<ul style="list-style-type: none"> • Project notes/Pictures 	
1/27-30	<ul style="list-style-type: none"> • Notes 5 – protection • Long Term Head Injury article 	<ul style="list-style-type: none"> • Project notes will be collected next class 	
1/31-1	<ul style="list-style-type: none"> • Project Time – Collect notes • Teenage brain article 	<ul style="list-style-type: none"> • Book Questions 	
2/2-3	<ul style="list-style-type: none"> • Project Time • Teenage Brain article 	<ul style="list-style-type: none"> • 	
2/6-7	<ul style="list-style-type: none"> • Project due 	<ul style="list-style-type: none"> • 	
2/8-9	<ul style="list-style-type: none"> • TEST (absent) 	<ul style="list-style-type: none"> • 	

READING GUIDE Chapter 7

1. What are the three overlapping functions that the NS uses to do everything?
2. Generally, does the NS work quickly or slowly?
3. How is the central nervous system different from the peripheral nervous system?
4. What are the two structures that make up the Central Nervous System (CNS)?
5. How is the sensory system different from the motor system? With respect to the CNS - which direction do sensory nerves send messages? Motor nerves?
6. The nervous system is made of two types of cells _____ and _____. What is the main function of each of these two types of cells?
7. What do you call nerve cells?
8. What is in the cell body of a neuron? What does the cell body look like?
9. What are the 2 types of "processes"? What do they look like? How are they different?
10. The space between two neurons is called the__?
11. What is myelin made of, where is it, and what does it do?
12. How do neurons send messages? (you do not need to know the details of an action potential)
13. What are some examples of actions that excite neurons?
14. What happens to this process when a person drinks alcohol or takes a sedative?
15. Sketch the five basic elements of simple reflex arcs. Does the reflex arc get to the brain? Why or why not?
16. What are the four main regions of the brain?
17. What parts/behaviors do the cerebral hemispheres control?
18. What parts/behaviors does the brain stem control?
19. What parts/behaviors does the cerebellum control?
20. What does the diencephalon do?
21. What are the four main ways the Central NS is protected? What does each do?

Figures to study in the book: 7.1, 7.4, 7.6, 7.9, 7.10, 7.11, 7.12, 7.14 (because it is cool)

BOOK QUESTIONS: page 276 – Short Answer #13, 14, 16, 17, 19, 23