NERVOUS SYSTEM STUDY GUIDE

GPS STANDARD:

SAP3. Students will assess the integration and coordination of body functions and their dependence on the endocrine and nervous systems to regulate physiological activities.

a. Interpret interactions among hormones, senses, and ***nerves*** *which make possible the coordination of functions of the body.*

b. Investigate the ***physiology of electrochemical impulses*** *and neural integration and trace the* ***pathway of an impulse****, relating biochemical changes involved in the conduction of the impulse.*

c. Describe how the body perceives internal and external stimuli and responds to maintain a stable internal environment, as it relates to biofeedback.

STUDY GUIDE QUESTIONS:

1. What is the main function of the nervous system?
2. What are the divisions and functions of the nervous system?
3. Draw and label the parts of a typical neuron.
4. What are the functions of the 3 structural and 3 functional types of neurons?
5. What are the functions of the supporting cells for the CNS and PNS?
6. What are the terms used for cell bodies and nerve fibers in the CNS and PNS?
7. What are the functions of the receptors in the body?
8. What is a reflex?
9. Trace the pathway of an impulse through the reflex arc including the specific parts of the spinal cord.
10. Explain the physiology of generating an electrochemical impulse. (Steps of the action potential)
11. What are the functions of the parts of the brain?
12. What is the corpus callosum?
13. How is the CNS protected?
14. What is the blood brain barrier?
15. List the parts of the spinal cord.
16. What is the structure of a nerve?
17. List the main nerve names and plexuses.
18. What are the structural and functional differences between the ANS and SNS?
19. What are the structural and functional differences between the Sympathetic and Parasympathetic Divisions?
20. Explain the disorders associated with the nervous system.