**Nervous System Online Activities**

* Go to our website and click on Pearson success
* Log in to Pearson using the provided log on information
* Choose the “Lizard Eye” book: BIOLOGY – Exploring Life
* Choose Chapter 28 Activities

*Answer questions in your lab notebook and tape these questions into your lab notebook.*

**Activity 28.1 The nervous system links sensation to response.**

Page 1: Read the background information and complete all activities.

1. What are the major components of the Central Nervous System?
2. What are the major components of the Peripheral Nervous System?
3. What is the difference between a nerve and a neuron?

Page 2: Read the background information and complete all activities.

4. When the knee is hit with the mallet, which neuron first detects the stimulus?

5. Which neuron will cause the muscles in the leg to contract?

**Activity 28.2 Neurons conduct nerve impulses.**

Page 1: Read the background information and complete all activities.

6. Which part of the neuron will receive an impulse?

7. Which part of the neuron will send the impulse?

8. How does the myelin sheath impact the speed of an impulse?

Page 2: Read the background information and complete all activities.

9. What is the voltage of the resting axon?

10. What is the concentration of Na+ and K+ inside and outside of the resting axon?

11. Describe the movement of ions through the ion channels.

12. What is the role of the Na+/K+ pump?

Page 3: Read the background information and complete all activities.

13. Describe the movement of Na+ and K+ in the three steps of an action potential.

14. How does the charge inside the axon change in these three steps?

Page 4: Read the background information and complete all activities.

 15. What is a synapse?

16. What is released into the synapse when the impulse reaches the end of the neuron?

17. What do the neurotransmitters cause the next neuron in the pathway to do?

**Activity 28.3 The PNS carries information to and from the CNS**

Page 1: Read the background information and complete all activities.

18. What is the function of the sympathetic division of the autonomic nervous system?

19. What is the function of the parasympathetic division?

20. Which division is responsible for Jehna’s increased heart rate?

21. Which division is responsible for Stephano’s response?

22. Which division is responsible for dilating Phil’s pupils?

23. Which division is responsible for Mai Quynh”s response?

24. Which division is responsible for Brett’s response?