Internet Assignment: Chemical Synapse & Neurons

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Class: \_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_

<http://highered.mcgraw-hill.com/sites/0072495855/student_view0/chapter14/animation__chemical_synapse__quiz_1_.html>

Review:

What is a ligand gated ion channel? Are these used in active or passive transport?

What is a voltage gated ion channel? Are these used in active or passive transport?



6. Do sodium ions diffuse into or out of the cell?

7. Does this make the membrane potential more negative or positive?



12

11

10

9

8

<http://highered.mcgraw-hill.com/sites/0072495855/student_view0/chapter14/animation__the_nerve_impulse.html>

1. Review: Define voltage
2. Draw and label the parts of a neuron (what does the large gray circle in the middle of the cell body represent?)
3. What is a nerve impulse?
4. How does the charge on the inside of the cell compared to the outside of the cell?
5. What kind of transport is used to maintain this difference, active or passive, and which ions are responsible for this charge difference?
6. Which ion moves in which direction with the pump?



11

10

90

8

7

12. What does it mean when a nerve cell is depolarized?

13. How does depolarization affect neighboring voltage gated ion channels

14. What do we call this moving depolarization

15. What two changes occur behind the action potential to restore the cell to resting potential?

16. Which ion is most responsible for repolarization, and in which direction (in or out) does it move?