

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Period: \_\_\_\_\_

### **Evidence 3: Cell Transport Regular**

### **Option 1: Reading**

Use the reading provided in class to complete this paper. Answer questions as you read through the information on Membrane Transport.

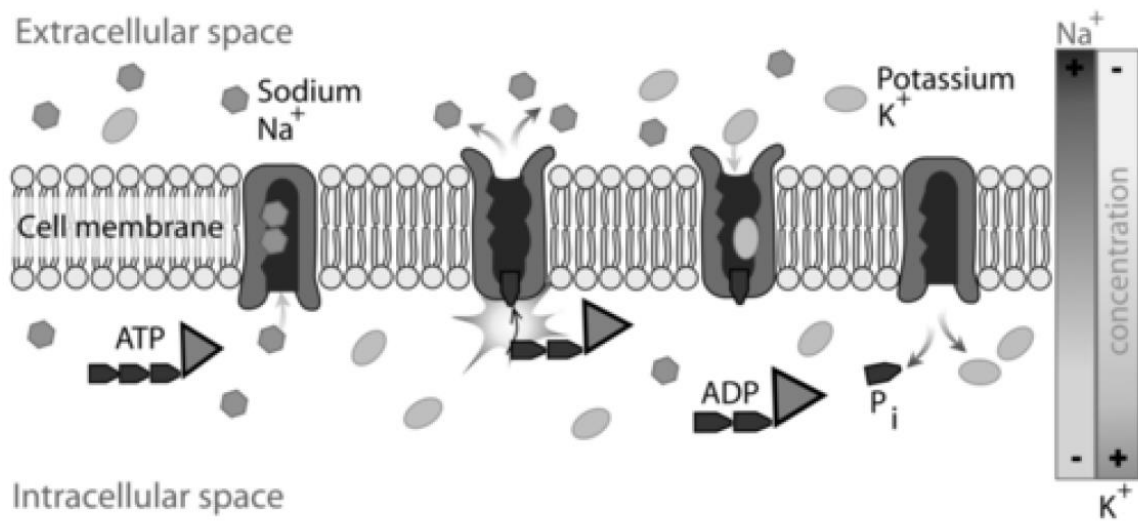
#### ***Passive Transport***

1. What is "concentration" of a substance?
2. What is a concentration gradient?
3. How will molecules move across a concentration gradient when no energy is required?
4. What type of transport (active or passive) occurs when no energy is used?
5. Define simple diffusion.
6. Explain why you use no energy when oxygen moves out of your lungs and into your blood and when carbon dioxide moves out of your blood into your lungs.
7. How do molecules that are too big to pass in between the lipids in a membrane get through?
8. What type of diffusion uses proteins but NO energy?
9. What is the difference between a channel and a carrier protein?
10. What is the diffusion of water called?

#### ***Active Transport***

1. Which way do molecules move across the concentration gradient in active transport?
2. Does this type of transport require energy? \_\_\_\_\_ Why or why not?
3. What is our energy storing molecule?
4. How is energy released from ATP? (Hint: look at steps 2 and 3)

5. On the diagram below write the numbers 1 through 4 to show what each step looks like.



6. How do molecules that are too big to pass through a protein get into and out of a cell?

### **Summary**

1. What are the two main components of the cell membrane?
2. If molecules are moving up the concentration gradient, which way are they moving in reference to concentration?
3. Both passive and active transport use proteins. Which one requires energy for the protein to work?