Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period: \_\_\_\_ Seat #\_\_\_\_

**RWS 8.3: Cell Transport**

1. Define the following terms:
	1. Diffusion
	2. Passive transport
	3. Facilitated diffusion
	4. Aquaporin
	5. Osmosis
	6. Isotonic
	7. Hypertonic
	8. Hypotonic
2. Osmosis is a form of facilitated diffusion. Explain why.
3. Draw the animal cell from diagram 8-20 in the table below

|  |  |  |  |
| --- | --- | --- | --- |
| Solution | Isotonic | Hypertonic | Hypotonic |
| Animal Cell |  |  |  |

1. If a human red blood cell is placed in pure water it will swell and burst. However, bacteria, plant cells, and the eggs of freshwater fish do not burst in pure water. Explain why.
2. What is active transport?
3. What type of active transport is used to move:
	1. Small molecules and ions
	2. Larger molecules and solid clumps of material
4. What are the similarities and differences between facilitated diffusion and active transport by a protein pump?
5. Describe each type of endocytosis
	1. Phagocytosis
	2. Pinocystosis
6. What is exocytosis? Give an example.
7. A student draws a fence with several gates as part of a model of cellular transport. Explain what the fence and the gates represent, relating their structures to their functions. Explain how the model could represent both active transport using protein pumps and facilitated diffusion.