DATE: NAME: CLASS:

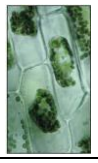
CHAPTER 3 WORKSHEET	**Osmosis in Animal and Plant Cells**	BLM 3-10 ANSWERS

1. Identify the solution that the red blood cell was placed in for each situation. Describe the net movement of water and explain what happens to the red blood cell as a result.

			
Solution	**hypotonic solution**	**hypertonic solution**	**isotonic solution**
Net Movement of Water	**water enters the cell**	**water leaves the cell**	**no net movement of water**
Result	**red blood cell may burst (hemolysis)**	**red blood cell shrivels (crenation)**	**red blood cell remains the same**

2. Explain what would happen to a red blood cell if it is placed in a salt solution that is 0.4%.
Water will move into the red blood cell, causing it to expand and burst (or lyse). Hemolysis will result.

3. Identify the solution that the plant cell was placed in for each situation. Describe the net movement of water and explain what happens to the plant cell as a result.

			
Solution	**hypertonic solution**	**isotonic solution**	**hypotonic solution**
Net Movement of Water	**water leaves the cell**	**no net movement of water**	**water enters the cell**
Result	**plant cell membrane pulls away from the cell wall, vacuole loses water, and cytoplasm shrinks (plasmolysis)**	**plant cell remains the same (flaccid)**	**plant cell swells because vacuole fills with water and creates turgor pressure and plant cell does not burst (turgid)**

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