**Osmosis Worksheet**

**Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Period:\_\_\_\_\_\_\_\_\_**

Directions: Determine if an *animal cell* is placed in a hypertonic, hypotonic or isotonic solution. Then draw a picture of the situation in the box provided showing the movement of water from a high concentration to a low concentration.

**1. An animal cell containing 45% water, 55% solutes is placed in a solution that contains 70% water, 30% solutes.**

**HYPERTONIC HYPOTONIC ISOTONIC**

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**2. An animal cell containing 72% water, 28% solutes is placed in a solution of 72% water, 28% solutes.**

**HYPERTONIC HYPOTONIC ISOTONIC**

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**3. An animal cell containing 80% water, 20% solutes is placed into a solution of 49% water, 51% solutes.**

**HYPERTONIC HYPOTONIC ISOTONIC**

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**CRITICAL THINKING QUESTIONS:**

1. **Why would a person with a sore throat want to gargle with salt water? *(Hint: What type of environment is this creating for throat cells?)***

1. **Why do saltwater fish die if they are placed in freshwater?**

1. **Explain what type(s) of solution(s) you would want to avoid in your IV before going into surgery? WHY? Be specific!!**

1. **When would osmosis not occur?**