Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Period\_\_\_\_

**Lab: Dew Point & Relative Humidity**

PRE-LAB Assignment

1. Define **Dewpoint**:
2. Define **Relative Humidity:**
3. What is the relative humidity of air at its dewpoint?
4. What is the equation for Calculating Relative Humidity?

|  |  |
| --- | --- |
|  | **Water Vapor Capacity****(Maximum it can hold)**g/kg(grams water vapor/kg or air) |
| **50oF** | 8 |
| **60oF** | 10 |
| **70oF** | 15 |
| **80oF** | 22 |
| **90oF** | 30 |
| **100oF** | 50 |

1. Based on the table to the right, what is the relationship between temperature and the amount of water vapor it can hold?
2. Based on the table to the right, if air at 90oF contains 20g of water vapor, calculate its relative humidity. SHOW YOUR WORK. Label your answer with %.
3. Based on the table to the right, if a sample of air contains 15g of water vapor, what is its dew point?



1. Using the table above: After slinging the psychrometer 50 times, the Dry-bulb temperature was 11oC and the Wet-bulb reading was 9oC. Using the table above, what is the relative humidity?
2. If both thermometers of the sling psychrometer had the same temperature, what would the relative humidity be?