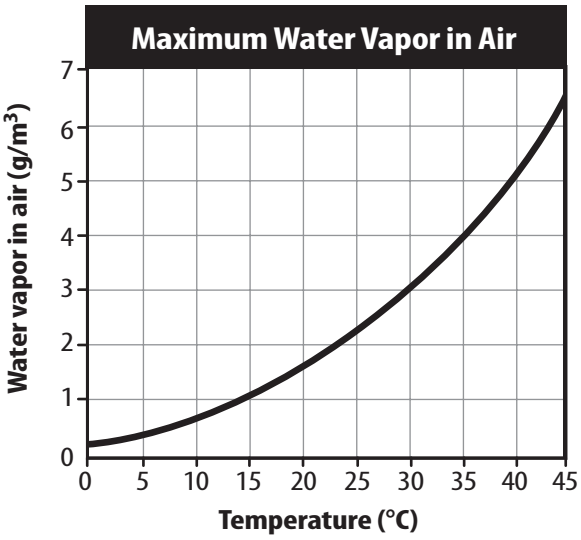
Name _____ Date _____ Class _____

Inquiry **MiniLab** **LESSON 1: 20 minutes**

When will dew form?

The relative humidity on a summer day is 80 percent. The temperature is 35°C. You want to find out if the dew point will be reached if the temperature drops to 25°C later that evening. Use the figure below to find the amount of water vapor needed for saturation at each temperature.



Procedure

1. Calculate the amount of water vapor in air that is 35°C at 80 percent relative humidity. (Hint: multiply the amount of water vapor air can contain at 35°C by the percent of relative humidity.)
2. At 25°C, air can hold 2.2 g/cm^3 of water vapor. If your answer from step 1 is less than 2.2 g/cm^3, the dew point is not reached and dew will not form. If the number is greater, dew will form.

Analyze and Conclude

Key Concept After the Sun rises in the morning, the air's temperature increases. How does the relative humidity change after sunrise? What does the line represent?