**KMT and Gases Study Guide**

1. Describe each of the following (definition or your own words) and list units you would see for it:
   1. Temperature b. Pressure c. Volume
2. Describe how solids, liquids and gases differ (on a molecular level).
3. List and describe the 6 phase changes.
4. Draw a phase diagram and label as much as you can.
5. Describe properties of gases, based on the Kinetic Molecular Theory.
6. What is vapor pressure? How does it change as temperature is increased?
7. What does it mean to be volatile? If a substance is volatile, what kind of vapor pressure would it have?
8. When you see “normal” in the question, what does that mean?
9. Draw a vapor pressure curve and label as much as you can.
10. What does STP mean? What should you do when you see it in a problem?
11. Describe the relationship among the following variables (when the 3rd variable is held constant):
    1. Pressure and volume b. Pressure and temperature c. Temperature and volume
12. What equation would you use if none of the 3 is held constant?
13. When do you have to convert temp to Kelvin? How do you do that?
14. Describe each letter in PV = nRT.
15. When do you HAVE to put volume in liters?
16. How do you find R?
17. Describe Dalton’s Law of Partial Pressures.
18. What is another name for atmospheric pressure?
19. When you see “collecting a gas over water” in the question, how do you solve that?
20. If you’re given grams in a problem, what can you turn that into? How?

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