Name: _____

Date: _____ Per: _____

Chemistry
States of Matter WS

I. *Answer the following questions about the three main states of matter:*

1. What major similarity exists between Dalton's Atomic Theory and the kinetic theory? What major difference exists between them?

2. Draw a square container below with 10 gas particles inside. Diagram how one of the particles moves in the container. How does this movement create gas pressure?

3. What is the best way to measure the average kinetic energy of a substance? What unit scale is most appropriate for this measurement, and why?

4. What makes a gas different from a liquid? What makes a gas different from a solid?

5. According to kinetic theory, what happens to particles as they're heated? Why?

6. Draw two containers half-filled with water; one container is open, the other is closed. Draw a diagram of the gas particles above the water. How are they moving? What will happen to the liquids in each container?

7. Draw a graph below showing the relationship between pressure vs. temperature as temperature increases. Assume constant volume. Label your axes and use appropriate units. What is this kind of relationship called?

8. What happens to the temperature of a substance as it undergoes a phase change? Why does this happen?

9. Draw a diagram below showing the three main states of matter and the six phase changes between them.