Ch 3 Study Guide Review Name _____

1. How can shape and volume be used to classify the following materials?

   Solid:

   Liquid:

   Gas:

2. What does the kinetic theory of motion say about atoms?

3. Use kinetic theory **and** attractive forces to explain the behavior of gases, liquids, and solids.

4. How does the arrangement of atoms in copper differ from the arrangement of atoms in mercury?

5. Define **kinetic energy**–

6. What does the kinetic theory of matter say?

7. A hazardous chemical is leaking from a tank truck. Rescue workers need to evacuate people who live near the accident. Why are more people likely to be affected if the chemical is a gas, rather than a liquid?

8. What causes gas pressure in a closed container?

9. Define **pressure**-

10. How does temperature affect gas pressure?

11. How does volume affect gas pressure?

12. If I reduce the volume of a container without changing the number of particles in the container, how would the pressure on the walls of the container be effected? Explain.

13. If I increase the temperature of particles in a sealed container, how is the pressure on the walls of the container effected? Explain.

14. Define the following phase changes:

Sublimation-

Deposition-

Condensation-

Vaporization-

Melting-

Freezing-

15. Which phase changes are **exothermic**?

16. Explain why water has a different boiling point at an elevation of 300 meters than it does at sea level?

17. What happens to the speed of particles inside an air-filled balloon if the temperature of the balloon increases?