Study Guide Matter and Molecular Motion Quiz

Name: Key Date: _____ Period: _____

LT1: I can demonstrate my knowledge of the states of matter and molecular motion.
LT2: I can use my knowledge of molecular motion to explain a real world situation.

Directions: Fill in the blank for each statement using a term from the word bank. Words can be used more than one time.

WORD BANK

Matter	Mass	Solid	Liquid
Gas	Volume	Evaporation	Condensation
Melting	Freezing	Boiling	Sublimation
Kinetic	Deposition	Vaporization	Change of State
Pressure	Density	Increases	Decreases
Air Pressure	Heat		

1. Anything in the universe that has mass and takes up space is called matter.
2. Mass is how we measure how much "stuff" there is in an object. (Similar to weight.)
3. Volume is the amount of space an object takes up.
4. How closely packed matter is. The mass per unit volume is called density.
5. Matter is typically found in three states: solid, liquid, and gas.
6. Matter that has a definite volume, but does not have a definite shape is called a liquid.
7. In a liquid, the particles can vibrate and slide past each other.
8. In a solid, particles vibrate in place.
9. A solid has a definite shape and a definite volume.
10. A gas has no definite shape or volume.
11. The particles of a gas bounce off of each other.
12. When matter changes state from a gas to a liquid it is called condensation.
13. When matter changes state from a liquid to a gas it is called vaporization.
14. Two types of vaporization are evaporation and boiling.
15. Evaporation is vaporization that occurs just at the surface of a liquid. It can happen below the boiling point.
16. Boiling is vaporization that occurs throughout a liquid when it reaches its boiling point.
17. When matter changes form, it is called a change of state.
18. Ice is water in its solid state.
19. Water vapor is water in its gas state.

20. When matter turns from a solid to a liquid, it is called melting.
21. When matter turns from a liquid to a solid, it is called freezing.
22. The force of particles colliding against a surface is called pressure.
23. If the temperature of a gas in a closed bottle is increased, then its pressure increases.
24. If the temperature of a gas in a closed bottle is decreased, then its pressure decreases.
25. True or False Air has mass.
26. True or False Air has volume.
27. True or False Air is made of particles (atoms and molecules) that are moving.
28. True or False When air particles stop moving they become a solid.
29. True or False When air particles move faster they become a solid.
30. Changing from a gas directly to a solid is called deposition.
31. Changing from a solid directly to a gas is called sublimation.
32. The energy that particles have from their motion is called kinetic energy.
33. It takes an increase or a decrease in heat for matter to change from one state to another.
34. If you increase the volume of a gas, its pressure decreases.
35. If you decrease the volume of a gas, its pressure increases.
36. Of the three states of matter, the one with particles moving the slowest is solid.
37. Of the three states of matter, the one with particles moving the fastest is gas.
38. Of the three states of matter, the one with particles moving at a medium speed is liquid.
39. Of the three states of matter, the one with particles the most spread out is gas.
40. Of the three states of matter, the one with particles the closest together is solid.
41. Of the three main of matter, the one with particles at a medium distance from each other is liquid.
42. The weight of the atmosphere pressing down on the earth due to gravity is called air pressure.

To prepare for the short answer essay – review the concepts presented covered in Hot and Cold Balloons.