**Sci 9 Matter Unit Study Guide**

1. What are the two defining characteristics of matter?
2. What is the definition of a physical property of matter?
3. Define the following physical properties of matter:
4. Density
5. Ductility
6. Malleability
7. Conductivity
8. Melting Point
9. Solubility
10. Lustre
11. Viscosity
12. List three chemical properties of matter.
13. List the characteristics of a physical change in matter.
14. What is the key difference between a physical change and a chemical change of matter?
15. When a chemical change occurs, a NEW substance is made. List four possible indicators that you might SEE as evidence a chemical change has taken place.
16. List the three point of Kinetic Molecular theory.
17. Use Kinetic Molecular Theory to describe the three main states of matter in terms of particle energy, movement and spacing.
18. Practice calculating Density:
19. Calculate the density of a bolder that has a volume of 5000ml and a mass of 10 000g.
20. A block of copper has a mass of 4000g and has a volume of 446.9 ml. What is the density?
21. Silver has a density of 10.5g/ml. What is the mass of a block of silver that measures 25cm by 25cm by 10cm?
22. The density of pure water is 1g/ml. If an object floats in water if must have a density of less than or more than 1g/ml?
23. 10 ml of an unknown liquid was poured into a beaker to find the mass. The mass of the dry beaker was 11.5g and the mas of the beaker and the liquid was 24.1 g. What is the density of the liquid?
24. Define the following:
25. Pure substance
26. Element
27. Compound
28. Homogeneous mixture
29. Heterogeneous mixture
30. Colloid
31. Solution
32. Solute
33. Solvent
34. How would you tell the difference between a colloid, solution and a suspension?
35. What is the difference between a compound and a solution?
36. Describe different methods of separating mixtures.