

Unit 1 – Matter: Study Guide (2014-C)

Objectives	Explain, define or draw a diagram
1. Define mass. Define volume. Give appropriate units for each.	
2. Demonstrate that you can use a multiple beam balance to determine the mass of various objects. Record the value of an object's mass in a manner consistent with the limit of precision of the balance.	
3. Represent class data using a histogram; use the histogram to interpret trends in the data. Sketch a sample at right.	
4. Develop, from experimental evidence, the law of conservation of system mass.	
5. Relate the volume of a container (in cm^3) to the volume of liquid it contains (in mL).	1 mL = 1cm^3
6. Determine the uncertainty of a measurement.	
7. Given a graph of mass vs. volume of a substance, write the equation of the line and state the meaning of the slope.	

8. Recognize that density is a characteristic property of matter. How can density be used to identify unknown substances?	
9. Use density as a conversion factor between mass and volume; show examples of converting mass to volume and vice versa (solve density problems).	
10. Use particle diagrams to represent solids, liquids and gases in a way that is consistent with their densities.	
11. Define matter	
12. Inertia	
13. Democritus	

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Objective	Define, describe, or draw a diagram or graph
14. Solvent	
15. Solute	
16. Reactant (rxt)	
17. Product (prod)	
18. Reaction (Rx) or chemical reaction, define and give an example with symbols	
19. Describe the particle model	
20. Describe the model so far.	
21. Weight (How does gravity affect weight? Does gravity effect the amount of mass measured?)	
22. Physical Change (define and give some examples).	
23. Chemical Change (define and give some examples	

24. Histogram of stretching steel wool	
25. Histogram of stretching melting ice	
26. Histogram of dissolving sugar	
27. Histogram of Alka Seltzer in water	
28. Histogram of mixing chemical A & B	
29. Histogram of heating steel wool	
30. Precipitate	
31.	
32.	
33.	