Unit 1 – Matter: Study Guide (2014-C)

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| **Objectives** | Explain, define or draw a diagram |
| 1. Define mass.  Define volume.   Give appropriate units for each. | Bell Work, week Mar 17 |
| 1. 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. | Mass & Change Notes |
| 1. Represent class data using a histogram; use the histogram to interpret trends in the data. Sketch a sample at right. | Bell Work, week of Mar 24  Mass & Change Notes |
| 1. Develop, from experimental evidence, the law of conservation of system mass. | Lab Notebook and Mass & Change Notes, closed system experiments. |
| 1. ~~Relate the volume of a container (in cm3) to the volume of liquid it contains (in mL).~~ | 1 mL = 1cm3 |
| 1. Determine the uncertainty of a measurement. | Mass & Change Notes (slide 7) |
| 1. ~~Given a graph of mass vs. volume of a substance, write the equation of the line and state the meaning of the slope.~~ |  |
| 1. ~~Recognize that density is a characteristic property of matter. How can density be used to identify unknown substances?~~ |  |
| 1. ~~Use density as a conversion factor between mass and volume; show examples of converting mass to volume and vice-versa (solve density problems~~). |  |
| 1. ~~Use particle diagrams to represent solids, liquids and gases in a way that is consistent with their densities.~~ |  |
| 1. Define matter | Bell Work week Mar 17 |
| 1. **Inertia** | Bell Work week Mar 17 (online only) |
| 1. **Democritus** | Bell Work week Mar 17 |
| Unit 1 – Matter: Study Guide | |
| Objective | Define, describe, or draw a diagram or graph |
| 1. Solvent | Bell Work week Mar 24 |
| 1. Solute | Bell Work week Mar 24 |
| 1. Reactant (rxt) | Bell Work week Mar 24 |
| 1. Product (prod) | Bell Work week Mar 24 |
| 1. Reaction (Rx) or chemical reaction, define and give an example with symbols | Bell Work week Mar 24 |
| 1. Describe the particle model | Bell Work week Mar 24 |
| 1. Describe the model so far. | Bell Work week Mar 31 |
| 1. Weight (How does gravity affect weight? Does gravity effect the amount of mass measured?) | Bell Work week Mar 17 |
| 1. Physical Change (define and give some examples). | Bell Work week Mar 24 |
| 1. Chemical Change (define and give some examples | Bell Work week Mar 24 |
| 1. Histogram of stretching steel wool | Mass & Change Notes |
| 1. Histogram of stretching melting ice | Mass & Change Notes |
| 1. Histogram of disolving sugar | Mass & Change Notes |
| 1. Histogram of Alka Seltzer in water | Mass & Change Notes |
| 1. Histogram of mixing chemical A & B | Mass & Change Notes |
| 1. Histogram of heating steel wool | Mass & Change Notes |
| 1. Precipitate | Bell Work week Mar 31 |
| 1. **Open System** | Bell Work week Mar 24 |
| 1. **Closed System** | Bell Work week Mar 24 |
| 1. **When a nail rusts, does the mass of the rusty nail increase, decrease or stay the same (assume no rust fall off the nail when weighing). Why?** | Bell Work week Mar 31 |