Name Date \_\_ Prd Seat \_\_\_\_\_

# **Unit 1 Worksheet 1: Mass and Change**

1. ***When you pulled the steel wool apart, you found that the mass was unchanged.*** **But, when you heated the steel wool, you found that the mass changed. Explain.**

*Draw diagrams (at the simple particle level) of the steel wool before and after the change.*

Steel wool-pulled apart Steel wool-heated

before after before after

2. **When ice melts, the volume of water is smaller than that of the ice. How does the mass of the water compare to the mass of the ice?**

*Draw diagrams (at the simple particle level) of the ice and water. Use small circles to represent the H2O particles.*

Ice Water

3. ***When the sugar dissolved in the water, you found that the mass remained unchanged.*** **When the Alka-Seltzer dissolved in the water, the mass of the system changed. Explain.**

*Draw diagrams (at the simple particle level) of each of the materials before and after it was dissolved.*

Sugar Water Sugar Water

Alka Seltzer & Water: Before dissolving After **dissolving**

4. Mixing the chemical A/ water solution with the chemical B/ water solution caused the precipitate, chemical C, to form. **When the precipitate formed in the solution, you found that the mass remained unchanged. Explain.**

*Draw diagrams (at the simple particle level) of each of chemical A and chemical B before it was mixed and C in water.*

Chemical A Chemical B Chemical C

**5. State the Law of Conservation of Mass in your own words.**

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Chemistry Laboratory Write-up Checklist

Experiment: Mass & Change Group \_\_\_\_\_

**Name**

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| Format Purpose  (10 points) | 1. Each section clearly labeled, neat & organized. You have an entry for the table of contents. Pages are numbered. 2. What were you trying to learn in this lab**? (Hint: What is the title of the experiment and question # 5?)** |  |
| Experimental Design (20 points) | 1. Briefly describe the 6 experiments and what you measured. |  |
| Data & Evaluation  (30 points) | 1. Completed table of data and calculations. If your data disagreed with the class histograms, be sure and **clearly** state the accurate change for of each experiment where your group was not accurate.  2. Diagrams showing representation of matter at atomic level for **“initial” and “final” appearances.**  ~~3. Histograms correctly plotted and labeled~~ |  |
| Lab Questions (20 points) | 1. Complete Work Sheet 1- Mass and Change 2. **State which experiments were “open systems” and which experiments were “closed systems.” Do this under the drawings.** |  |
| Conclusion (20 points) | 1. Identify which experiments showed no change in mass – **explain why.** **Was the system opened or closed?**   2. Identify which experiments showed a mass change – **explain why**. **Was the system opened or closed?**  3. State the Law of Conservation of Mass in your own words. |  |

Maximum Score = 100 points Your score