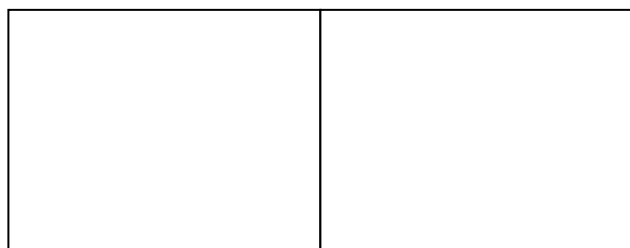


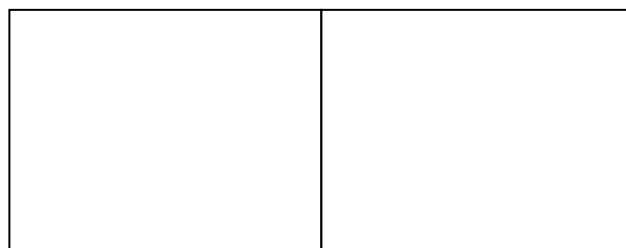
Unit 1 Worksheet 1: Mass and Change

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.



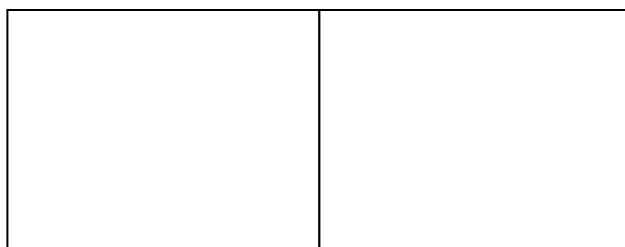
Steel wool-pulled apart
before after



Steel wool-heated
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 H_2O particles.

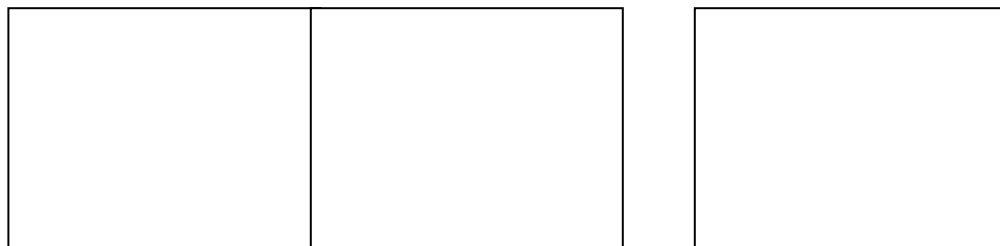


Ice

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.**

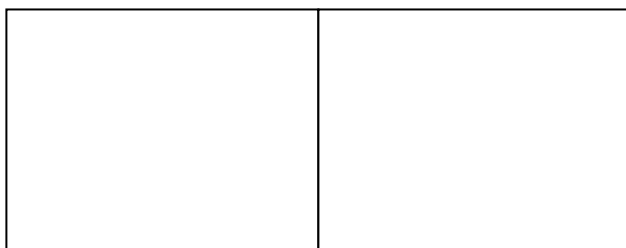
Draw diagrams (at the simple particle level) of each of the materials before and after it was dissolved.



Sugar

Water

Sugar Water

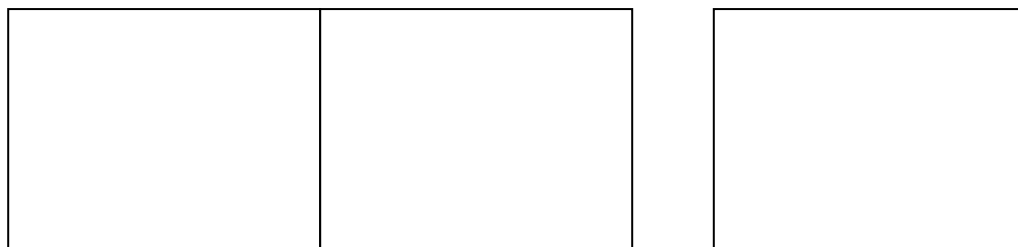


Alka Seltzer & Water: Before dissolving

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.**

Rubric/ Check List

1. Title of experiment and page number is entered in the table of contents (-5 pt.s)
2. Title of experiment at the top of the first page (- 5 pt.s)
3. Data table filled in (9 pt.s)
4. You noted the following about each experiment:
 - system open or closed (6 pts)
 - mass either increased, decreased or the mass did not change (none). (6 pt.s)
 - the change was either physical or chemical (6 pt.s)
6. You made a prediction of what would happen before you performed each experiment (you have six predictions) (12 pt.s)
7. You completed the Mass and Change worksheet including questions 1-6 and all six sets of drawings (61 points, 6 points for each experiment's particle diagram, 5 points for each question)