What a Reaction

Predict what you think will happen when a seltzer tablet and water are combined in a balloon? Do you think the combined mass of the objects will be the same or different? Explain your prediction. Will this experiment support the "Law of Conservation of Matter?"

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Collect the items from the table that you will need to perform this experiment: one balloon, string, one seltzer tablet, one vial with lid, a small cup of water, and a balance scale. Return with these items to your group and perform the out-lined activity.

To begin your experiment you will first need to get the weight of the seltzer tablet, balloon, string, water, and vial with lid.

1. Make sure that your balance is working correctly.	Weight
2. Break your seltzer tablet into four small pieces. Place these pieces in your balloon. Place the balloon on the balance scale along with your piece of string and record the weight.	2.
3. Place your vial and lid on the balance scale. Record their weight.	3.
4. Fill the vial with water to the mark indicated and weigh it again. Subtract the weight of the vial and lid from the weight of the vial with water and lid to get the weight of the water. Place this weight in column four.	Weight of vial, lid and water minus the weight of vial and lid. Place the difference on line four. _____- _____=_____ Lid, vial, and water – vial and lid 4.
5. Now pour the water from the vial into the balloon. Hold the balloon tightly around the vial while a partner ties the string around the balloon. Remove the vial. Watch and feel what happens to the balloon and record your observations in column five.	

6. Place the balloon on the scale and measure the weight of the balloon.	Place the weight of the balloon on six. 6.
7. Add the weight of the water to the weight of the balloon, string and seltzer tablet. Record this on line seven	_____ + _____= _____ Total of line two + line four 7. Total of line two, and four. _____
8. Does your balloon weigh the same as the sum of numbers two and four? Yes or No. Explain your answer in column eight.	8.
9. What might explain any changes in weight? Record your answer in column nine.	9.
10. What law was demonstrated with this experiment?	10.

11. Did you prediction match the outcome of your experiment? Explain

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12. What is the "Law of Conservation of Matter" and how did your experiment prove this law.

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13. Reflection, tell about what you did and what you learned from this experiment.

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