

Lab 9 – Alka-Seltzer Rockets Lab

Introduction:

Write 10 sentences that talk about the topics in chapter 5. You can use your notes, the textbook, vocabulary, etc. to help you.

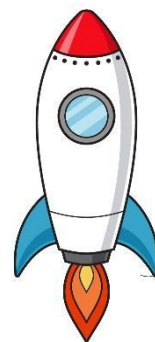
Materials: (copy the materials into the lab notebook)

film canister

cellphone (optional)

water (varying temperatures)

alka-seltzer tablets



Procedure: (copy the procedure into the lab notebook)

1. You will pick the volume and temperature of water to use during each trial. You can fill the canister about $\frac{1}{4}$ with water, $\frac{1}{2}$ with water, or $\frac{3}{4}$ with water. You can pick between hot water, room temperature water, and cold water.
2. Add the desired amount of water to the film canister. Add an Alka-Seltzer tablet. QUICKLY close the lid tightly and place it upside down (the lid should be at the bottom) in the launching area.
3. Use the ruler chart to measure the height of the rocket. You need to complete at least 5 successful trials using different temperatures and volumes of water. A trial is considered successful when the rocket actually launches higher than 1 foot. Don't record unsuccessful trials. You can use a phone to record the launch to help get a more accurate measurement if you need to.
4. BONUS: If you can get your rocket to hit the ceiling (while I am watching), then you get 10 bonus points.

Data: (You can tape the data charts ONLY in the lab notebook. All other sections must be hand written in BLACK INK.)

	Temperature of Water	Volume of Water	Height of Launch
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Launch #1			
Launch #2			
Launch #3			
Launch #4			
Launch #5			

Questions: (Copy the questions and answer them in the lab notebook)

The molecular formula for a main ingredient in Alka-Seltzer is $C_{16}H_{17}NaO_{14}$.

1. Which of these elements are in the same group?
2. Which of these elements are in the same period?
3. Identify each element as a metal, nonmetal, or metalloid.
4. Which element is more reactive: C or O?
5. Which 2 elements have similar properties and why?

Conclusion:

Write 3 sentences for the conclusion. They can be about anything that you learned, mistakes that you made during the lab, or any real life connections that you can use to relate to the lab.



