LET'S FLY: BUILDING A FILM CANSITER ROCKET

Purpose: To gain experience generating a hypothesis, designing and performing experiments

Materials:
1. Clear plastic film canisters
2. Water (tap water)
3. Alka-Seltzer tablet (one full or one half)
4. Safety goggles
5. Lab notebook.

Objective: Assess the speed of the rocket reaction and height of the rocket launch by varying the amount of water in the canister.

Think about it:
Does the size of the tablet affect how long it takes for the rocket to launch?
How much water will give the quickest launch?
How much water will give the quickest height?

Hypothesis: Write down what you expect will happen.
I expect that the amount of water will cause the rocket to_____.

I expect that the size of the tablet will cause _____.

Experimental design:
1. You will work in groups of 2 and develop a hypothesis on what you expect will happen.

2. Your group will be randomly assigned an amount of water (we want to make sure that all scenarios are covered)

3. Add a varying amount of water (make sure to record the amount of water you added; eg. 1 teaspoon, 2 teaspoons ect…)

4. Place the Alka-seltzer tablet into the canister.

5. Quickly put the canister on the ground **CAP SIDE DOWN** and **STEP BACK** at least 6 feet.

6. Count how long it takes for the rocket to take off (about 10 seconds)

7. Record your time and water amount in your notebook.

8. Once all experiments have been performed we will assemble the data from all students and determine if your hypotheses were correct.