

Quick View

Experiment with different air pressures to test the effects on apogee.

Materials

- Completed bottle rocket
- Water
- Launcher
- 250-milliliter graduated cylinder or measuring cup
- Pencil
- “Fuel Pressures I Data Sheet”
- Altimeter
- “Lab Report Template” (optional)



Procedure

1 Write a hypothesis stating how you think changes in the air pressure in the rocket's fuel will affect the rocket's apogee.

2 Use the graduated cylinder to measure 100 ml of water.

3 Place the water in the rocket.

4 Attach the rocket to the launcher.

5 Pump up the launcher to 20 psi.

6 Launch the rocket.

7 Using an altimeter, find the apogee of the rocket's flight.

8 Record the rocket's apogee.

9 Repeat Steps 2-8 using 40 psi, 60 psi, and 80 psi.

10 Analyze the data generated from your tests and write a conclusion explaining how different fuel pressures affected the rocket's apogee.

Fuel Pressures I Data Sheet

Record your hypothesis in the space provided below.

Hypothesis _____

Record the data from each test using the fuel pressures listed. Complete any additional testing you think might improve your understanding of the effect of fuel pressures on apogee. Never place more than 100 psi of pressure in the rocket.

Test Number	Amount of Water (ml)	Amount of Pressure (psi)	Rocket's Apogee (meters)
1	100	20	
2	100	20	
3	100	40	
4	100	40	
5	100	60	
6	100	60	
7	100	80	
8	100	80	

Record your conclusion in the space provided below.

Conclusion _____
