

Extension Activities for Rocketry - Testing Thrust

1. Have students measure the distances their individual rockets traveled and record each attempt. Have them graph the data to show that their distances improve with practice.
2. Try to determine how high the rockets fly. To do this, place masking tape markers on a wall at measured distances from the floor to the ceiling.
 - While one student launches the rocket along the wall, another student compares the height the rocket reached with the tape markers.
 - Be sure to have the students subtract the height from where the rocket was launched from the altitude reached.
3. Have students create an air pressure device that will deliver a consistent force to the rocket during each launch.
4. Measure the angle of the launch straw and distances their rocket travels for varying angles. Plot the data to see the correlation and find the angle that gives the maximum distance.
5. Can students come up with any other design improvements, for example, less weight, high pressure air blower, fixed launch position, etc.?
6. Have students track and graph their results of landings. Create a class average and graph. Have them determine how the new rocket design affected the class average.

information credited to: https://www.teachengineering.org/activities/view/cub_rockets_lesson03_activity1;
https://www.gvsu.edu/cms4/asset/AF5F8044-C1CA-D385-2E8007C14930B056/paper_rockets_activity_description.pdf