

Title: Aerospace Engineering - Bottle Rocket

Engineering Challenge

July 20, 2022

Problem Statement: Write the problem statement in your own words and interpretation. What are you trying to achieve? What is being learned through this challenge?

Create a bottle rocket that flies well through the air

Materials: coke bottle, cardboard, construction paper, baking soda, vinegar, chip bag

Approach: We hot glued 3 fins cut from cardboard to the side of the bottle and added a construction paper cone on top in hopes of improving its aerodynamics. We added vinegar inside the bottle and put baking soda inside a chip bag. When the bottle is shaken up, the chemical reaction will take place and build up pressure inside the bottle.

Solution: We added vinegar inside the bottle and put baking soda inside a chip bag, so that when the bottle is shaken up, the chemical reaction will take place and build up pressure inside the bottle.

Analysis: Yes, we achieved our goal, but we could have made it better. By adding more baking soda and vinegar, and more accurately placing the fins, we could have made the bottle fly further for longer

Images:

