

BOTTLE ROCKET CONTEST

Objective:

Build a water rocket that will remain in the air for the longest time. The water rocket will be made from a 2-liter plastic bottle, and will be propelled by pressurized air & water.

Rules:

- Work in teams of two students. Sign up your team.
- The main body of the rocket must be the 2-liter plastic bottle that your teacher will give you. This is the part of the rocket that will contain the pressurized air and water. You will attach things to the outside of this bottle. But the bottle itself must remain intact - it cannot have any holes or cuts (it won't hold pressure and your rocket won't launch if it does).
- Your rocket must have fins, a nose cone, and a parachute. The parachute can start out inside the nose cone, but at some point in the flight it should come out if you want to get a good score.
- Use any materials except metal or glass. Do not use glue that melts or weakens the bottle. You may use additional 2-liter bottles to give your rocket a nose cone or extend its length, but do not modify the main body bottle.
- You decide how much water to put into the rocket before it is pressurized and launched.
- All rockets will be launched at the same pressure, 75 lb/in².
- Rocket parts may separate during the flight, but all parts must remain connected to each other. (For example, the nose cone can come off to release the parachute, as long as the nose cone stays connected to the rocket by a string.)
- Timing starts when the rocket is launched, and ends when any part of the rocket touches ground. If one part of the rocket falls off, and touches ground before the rest of the rocket, time stops when the first part touches ground. This is another good reason to keep all parts connected to each other.
- Rockets will be impounded at the start of the period on test day – no building during class.

Scoring:

- Score = Time in Air (sec)
- Two trials will be allowed if time permits.
- **Optional Practice Launches after school – see schedule for dates – meet in H-6.**