

2013 Physics Fun Day - Contest Rules

# BOTTLE ROCKET



*Objective:* To design and construct a bottle rocket from a 2-liter plastic soft drink bottle.  
The bottle rocket will use only water and compressed air as propellants.

*Materials:* To bring with you: A bottle rocket of your own design.  
Safety glasses or safety goggles for the person that launches.

To be provided to you: Water, a bottle rocket launcher, and compressed air to launch the rocket.

- Rules:*
1. Each school will be permitted one team, each with at least two competitors.
  2. The rocket may have a Styrofoam nose cone, cardboard fins, and a parachute.  
No metal parts are to be on the rocket.
  3. We suggest that you use extreme care when building and testing your rocket. It is not worth injuring yourself or someone else in this event.  
Wear safety glasses or goggles.
  4. All parts of the rocket must remain together during flight (even the nose cone).
  5. Any rocket which is deemed unsafe will be disqualified.
  6. The air pressure at launch will be approximately 50 pounds per square inch.
  7. Scoring will be based upon the time aloft – the time from when the rocket is launched to the time it strikes the ground. (Designs with parachute are allowed.)