

National Science Olympiad 2012 – Bottle Rocket B

Supervisors will record this information for each team & each team is encouraged to use this form as a **pre-tournament Checklist!**
Supervisors can also record team results on the excel Bottle Rocket spreadsheet found at www.soinc.org

Team Number: B__ Team Name: _____

Student Names: _____ Final Score: _____

Event and Construction Parameters (SAFETY CHECK)

	<u>Rocket 1</u>		<u>Rocket 2</u>	
3.a: Parts from one rocket is not used on another rocket.	Y	N	Y	N
4.a: Rocket pressure vessel is made out of a single \leq 1-liter plastic carbonated beverage bottle with a neck/nozzle opening internal diameter \sim 2.2 cm	Y	N	Y	N
4.a: Label for the bottle (can be removed) is presented at the safety inspection	Y	N	Y	N
4.b: Only tape is used to attach fins and other components to the pressure vessel. No glue of any type is used on the pressure vessel.	Y	N	Y	N
4.b: Does not use metal or commercial model rocket parts	Y	N	Y	N
4.c: Structural integrity of the pressure vessel is not altered	Y	N	Y	N
4.e: Rocket uses a blunt or round nose as described in the rules	Y	N	Y	N
4.f: Does not use explosives, gases other than air, chemical reaction, pyrotechnics, electric or electronic devices, elastic powered flight assists, throwing devices, remote controls, and tethers at any time	Y	N	Y	N
4.f: All energy at launch originates from the water/air pressure	Y	N	Y	N
4.g: Fins and other parts added to the bottle are \geq 5cm above the level of the bottle's opening	Y	N	Y	N
4.h: Rocket does not change shape nor deploy any type of recovery system	Y	N	Y	N
<u>DOES THIS ROCKET PASS SAFETY CHECK (IF N, DO NOT LAUNCH)</u>	1. Y	N	6. Y	N

Competition Parameters

	<u>Rocket 1</u>		<u>Rocket 2</u>	
5.b: Rockets launched at 60 psi	Y	N	Y	N
5.c: No parts of the rocket fall off or become separated during launch and flight	Y	N	Y	N
<u>IS THIS ROCKET FREE OF ANY COMPETITION VIOLATIONS (IF N, TIER 2)</u>	2. Y	N	7. Y	N

Score 5.d.

Timer 1 (in seconds to the nearest 0.01 second)	3. _____	8. _____
Timer 2 (in seconds to the nearest 0.01 second)	4. _____	9. _____
Timer 3 (in seconds to the nearest 0.01 second)	5. _____	10. _____
Disqualified (notify the team and their coach as soon as possible)		11. Y N
Pick One: Tier 1: Any launch without Construction or Competition violations) Tier 2: Any launch with any Competition Violations) Tier P (Participation Pts.): Any launch with Constr./Safety Violations)	Tier _____	Tier _____

- RANKING WITHIN EACH TIER IS DETERMINED BY THE COMBINED GREATEST TIME ALOFT OF BOTH ROCKET FLIGHTS. IF A TEAM ONLY LAUNCHES ONE ROCKET THEN THAT TEAM WILL RECEIVE ONLY THE FLIGHT TIME FOR THAT LAUNCH. TEAMS WITH A TIER 1 ROCKET AND A ROCKET WITH A VIOLATION ARE SCORED AS IF THEY HAD ONLY ONE ROCKET
- TIES ARE BROKEN BY THE GREATEST TIME A LOT BY A SINGLE ROCKET