Bottle Flipping Tournament

Friday, May 12, 2017
What: Bottle Flipping Tournament
Where: Silver Star Carousel Stage at Six Flags Over Texas
When: Friday, May 12, 2017
Time: 1:00pm

It’s not hard these days to find kids flipping bottles: at bus stops, at school lunchroom tables, and all over the internet. The act of flipping a water bottle through the air to achieve a perfect, upright landing on the table in front of you is part art form, part science. Bottle flipping actually has a fairly elaborate science behind it — water, angular momentum, and gravity paving the way for a soft landing. Six Flags Over Texas wants to challenge Science students to a bottle flipping tournament! The winner of this tournament will be awarded a special prize as the reigning Bottle Flip Champion!

**Tournament:** Contestants will compete in pairs in a traditional bracket system. They will flip bottles one at a time until one person’s bottle has not landed upright 3 times. If a bottle is flipped and lands upside down on its lid (aka “Capping”) that person automatically wins the bracket unless his/her opponent can flip their bottle on its lid on their next try. If the opponent is successful in capping, the flipping continues.

**Final Four:** The last four remaining contestants in the bracket will need to take their skills to new heights, literally. They will flip bottles onto a higher surface. Specifications will be provided the day of.

**Prizes:** The Tournament Winner will receive a grand prize. The runner-up will receive gift basket. One contestant, regardless of how they place in the bracket, will receive a special prize for the “Best Tossing Style”.

**Rules:** Contestants may only touch the lid of the bottle. The flip must be a backwards flip pictured on page 2. Contestants must use bottles provided by Six Flags. Six Flags reserves the right to disqualify any contestant for unsportsmanlike conduct.

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**Bottle Flipping Tournament**

**Entry Form**

Contestant Name: ____________________________ Grade: __________

Organization Name: ____________________________________________

Phone: __________________ Alternate Phone: ________________________

Email: _________________________________________________________

Please arrive

**ENTRY FORM MUST BE RECEIVED BY SIX FLAGS OVER TEXAS NO LATER THAN THURS MAY 11, 2017.**

Submit Your Entry via:
E-mail: hWhite@sftp.com
Or Fax: 817) 607.6148

Or Mail Entry to:
Six Flags Over Texas Attn: Group Sales
2201 Rd. to Six Flags Arlington, TX 76011
Breaking Down the Bottle Toss

Science in the Toss

I. Begin by holding a plastic bottle, filled a third of the way up, from the top. At this point, the center of mass lies with the water at the bottom of the bottle.

II. Toss the bottle in a forward and upward motion. The bottle rotates, but most of the water doesn't because it is free to move around within the bottle instead. The tosser can personalize how they serve the bottle during the delivery, right before the release.

III. As the bottle continues on its downward path, the spin of it is reduced and transferred to the heavier, contained water. The “spin” refers to a concept known as “angular momentum.”

IV. The bottle soon reaches a point at which it is barely spinning at all, and it falls straight to the surface because of gravity. The weight of the water, as well as the flat bottom of the bottle, contribute to the bottle landing upright.

SOURCES: James Bird, assistant professor fluid dynamics, Boston University; Iain Stewart, physics professor, MIT
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