

## CWSF 2017 - Regina, Saskatchewan



### Cullen St. Clair

#### Back on Traction

**Challenge:** Discovery

**Category:** Junior

**Region:** United Counties

**City:** Williamstown, ON

**School:** Charlottenburgh & Lancaster District H.S.

**Abstract:** What's the best way to get up a steep driveway? Forwards or backwards? Passengers in or out? How much power? This project used a front-wheel-driven vehicle on an increasingly steep ramp to test how vehicle orientation, added weight, surface conditions, and power levels affected traction. It then explores the science behind the surprising conclusions: you'll get farthest backing up, no passengers, and starting full power.

#### Biography

I am 12 years old and in grade 7 French Immersion at Char-Lan District High School in Williamstown, near Cornwall, Ontario. I was born in El Salvador, a small country in Central America, where I spent the first four years of my life there. I have one older sister, two younger sisters and a loving Mom and Dad. We moved from El Salvador to Fredericton, New Brunswick and lived there for six years. I first saw a science fair when I went to a public viewing of the Canada Wide Science Fair, when it was held at U.N.B. in 2015. I was inspired to do my project on traction when seeing cars slip on hills, and I decided to try to find out how to improve traction. I like solving puzzles, including Rubik's Cubes and brain teasers. I enjoy spending free time playing computer games, such as Minecraft, while talking to my friends via Skype. At school, my favourite subjects are math and gym. I find math fun because it is challenging and interesting! My favourite sport is soccer. When I grow up, I would like to be a programmer for Microsoft.

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