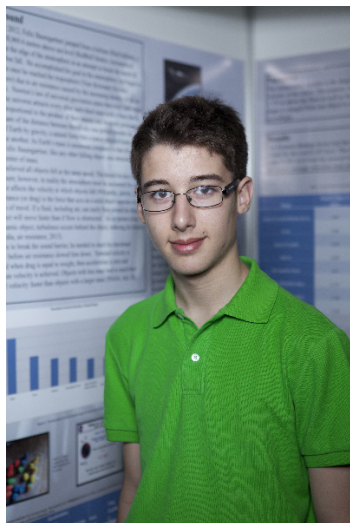


## CWSF 2013 - Lethbridge, Alberta



### Dayne Gawley

#### Free Fall

**Challenge:** Discovery

**Category:** Intermediate

**Region:** Regina

**City:** Regina, SK

**School:** Winston Knoll Collegiate

**Abstract:** Eight 3-Dimensional shapes were tested to determine the fastest velocity when dropped from a constant height. The cone was expected to drop the fastest, while the theoretical calculation of the oval had the highest estimated terminal velocity. The trials demonstrated the bottom down pyramid achieved the highest average velocity. In the future, aerodynamics can be used to design more fuel efficient vehicles.

#### Biography

My name is Dayne Gawley. I am 14 years old. I attend Winston Knoll Collegiate and am currently in grade 9. I was born in Moose Jaw, Saskatchewan where I attended King George School until my family moved to Regina, Saskatchewan. I have played lacrosse for 9 years and have referred for the past 2 years. In my spare time I like to play games and spend time at my families lake house. After high school I plan to become an engineer with a goal of working for the Canadian Space Agency. I was granted the University of Regina Department of Physics award and also won the SaskEnergy award at the Regina Regional Science Fair. The inspiration for my experiment came from watching Felix Baumgartner accelerate to supersonic speeds during free fall from in the stratosphere. I wish to improve my experiment by minimizing errors and incorporating statistics to measure percision. The advice I would give to other students is to have curiosity in the topic while researching the scientific area to acquire a broad knowledge base of the intended experiment. It is important to be capable of answering all questions asked to the best of your ability.

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