

# CWSF 2016 - Montreal, Quebec



## Teryl Bates

### Power of Phi

**Challenge:** Innovation

**Category:** Junior

**Region:** Central Okanagan

**City:** Kelowna, BC

**School:** Dr. Knox Middle School

**Abstract:** My hypothesis is if the Fibonacci Sequence can be used to maximize absorption, then it can be used to maximize deflection and reduce damage and loss of life. My experiment measured the inward movement or outward deflection of two pivoting panels after flash floods (water) and wind gusts (air) passed through seven barrier patterns representing the Fibonacci Sequence and Phi, the Golden Mean 1.618...

### Biography

I am a grade 8 student at Dr. Knox Middle School in Kelowna, B.C. Soccer is my sport of choice; it is a great fast paced game and I absolutely love it. I have been interested in Scouting since I was 6 and I am now in my 3rd year of Scouts and about to complete my Chief Scout Award. Camping and hiking is full of adventure and joining Scouts lets me do both more often. I've always been intrigued by natural disasters, whether I'm learning about them or experimenting with smaller scales of them (to hopefully one day reduce the damage and loss of life that can happen). The inspiration for my project this year was the Fibonacci Sequence and combining it with my passion for thwarting natural disasters. I like learning about the science of our Earth and why our planet is how it is. I also enjoy the engineering side of my science fair projects because I find it very interesting to build different barriers to protect against the elements. My advice to other young scientists is to explore what you are passionate about, as it makes science both easier and more enjoyable.

### Awards

### Value

Excellence Award - Junior - Silver Medal Sponsor: Youth Science Canada	
Western University Scholarship Silver Medallist - \$2000 Entrance Scholarship Sponsor: Western University	\$2 000
Total	\$2 000