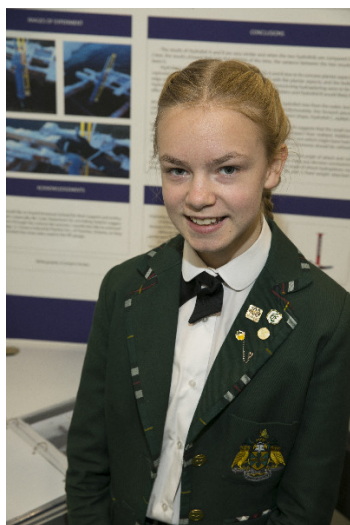


# CWSF 2017 - Regina, Saskatchewan



## Madighan Ryan

### Hydrofoils: An Uplifting Experience

**Challenge:** Innovation

**Category:** Junior

**Region:** Ottawa

**City:** Chelsea, QC

**School:** Elmwood School

**Abstract:** The objective of my experiment was to draw conclusions about how the angle of attack and camber affect what hydrofoils are best suited to different functions. I created three differently cambered hydrofoils and placed them in a situation that simulated a boat rising out of the water to determine what combination of camber and angle is best suited for the initial phase of lift.

### Biography

Travis Meadows once said "Peace is not found in a calmer storm, it is found in a better boat." So, when you are sailing slowly through the ocean, do not wish for higher winds, wish for a hydrofoil boat. As both a sailor and a pilot-in-training, I, Madighan Ryan, age 12, was intrigued by this sailing phenomenon which combines the principles of lift with my love of the water. Aside from sailing and flying, I am also very active in the Ottawa music community. I play both the bassoon and the piano, as well as sing as a head chorister at the St. Matthews' girls' choir. Both my jazz band and concert band received triple gold ratings and were invited to the national music festival this year. I am very passionate about my project. My advice to all aspiring scientists would be to be passionate as well. Be excited and curious about your research topic and as a result, you will want to experiment more, to learn more, and to dive deeper into the world of science.