

# CWSF 2019 - Fredericton, New Brunswick



## Annabelle Rayson

### De-Icer Distillery: An Innovative and Environmental Approach to Road Safety

**Challenge:** Environment

**Category:** Junior

**Region:** Lambton County

**City:** Sarnia, ON

**School:** St. Anne E.S.

**Abstract:** Winter road maintenance is a necessity in Ontario but it has many detrimental effects. Kitchen compost was distilled into alcohol. This compost alcohol and compost alcohol salt brine mix were then tested for corrosiveness, environmental effects and effectiveness in comparison with commonly used de-icers such as road salt, salt brine, beet brine and vodka.

#### Biography

My name is Annabelle Rayson. I am 13 years old and attend grade 8 at St. Anne's Catholic school in Sarnia, Ontario. I love helping people and solving problems. I enjoy math, science, geography, history, and writing. I have been a member of my school's Social Justice Club for 5 years and I am currently Chair of The Shoebox Project for Sarnia Lambton which provides holiday gifts to homeless women. I have played the violin for 7 years and participate in sports such as curling, competitive volleyball, competitive swimming, and basketball. In 2018, I served as a Legislative Page at the Legislative Assembly of Ontario for the outgoing Liberal and incoming Conservative governments. I would like to become a politician one day so I can help others and make sure that the decisions that impact so many are fair. My hobbies include reading, knitting, kayaking, baking and everything Disney. After travelling in snowy Ontario during the winter, I wanted to investigate the environmental effects of de-icers. I encourage other students to find the thing that makes them angry when they think about the world and try and find a solution to that.

#### Awards

#### Value

Excellence Award - Junior - Bronze Medal Sponsor: Youth Science Canada	
Western University Scholarship Bronze Medallist - \$1000 Entrance Scholarship Sponsor: Western University	\$1 000
Total	\$1 000