



CWSF 2018 - Ottawa, Ontario



Biography

Kailas Chari is a bilingual student in Grade 8 at Maple Grove Public School in Oakville. He is a decorated competitive swimmer and a talented piano player. He has received numerous awards, including Most Promising Young Musician from the Kiwanis Festival and placed third at the 2016 Ontario Music Festival Finals. He is an avid reader, who loves math and science. Kailas was inspired to find an environmentally-friendly alternative to road salt when he learned of the extent of the damage it causes to aquatic life, soil and infrastructure. Kailas plans to further explore the effects of different salt solutions on plants, organisms, and concrete. He urges science students to consider practical applications for their experiments. Kailas is very excited to attend Canada Wide Science Fair for the second time.

Kailas Chari

Freezing Point Depression of Salt Solutions: Finding the best De-Icing Compound

Challenge:	Environment
Category:	Junior
Region:	Bay Area
City:	Oakville, ON
School:	Maple Grove Public School
Abstract:	The effectiveness of various compounds, alone and in combination, at de-icing was assessed to identify an alternative to the widely used sodium chloride that would be less harmful to the environment. Total ion concentration of a solution was a determining factor in depressing freezing point, as was ion species. A solid blend of calcium chloride and magnesium chloride applied with beet juice is recommended.

Awards	Value
Excellence Award - Junior - Gold Medal	
Sponsor: Youth Science Canada	
Challenge Award - Environment - Junior	
Sponsor: Youth Science Canada	
Western University Scholarship	\$4 000
Gold Medallist - \$4000 Entrance Scholarship	
Sponsor: Western University	
Total	\$4 000



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