



CWSF 2017 - Regina, Saskatchewan



Biography

I wanted to expand my knowledge about water since there are still many things about water that are a mystery to us. I was inspired to do my project when I read about scientists that found evidence of a new phase of water (published in November 2016). I hope in the future we as human beings will have the opportunity to explore and understand the topic fully. In my opinion, the essential thing when it comes to doing a science project is an open, passionate heart towards the subject. There may be failures along the way but learning how to not let these burdens pull you down will lead to you an astonishing experience.

Melody Cheng

A New Phase of Water: Is this measurable with surface tension?

Challenge:	Discovery
Category:	Intermediate
Region:	Vancouver Island
City:	Victoria, BC
School:	Glenlyon Norfolk School
Abstract:	Recently, scientists discovered a new phase of liquid water, where a difference in hydrogen bonding exists from 40 to 60C. I wanted to know if this phenomenon could be observed in different concentrations of magnesium chloride and sodium chloride. I measured the surface tension of water by analyzing the contact angle in a droplet and was able to measure a variation in the crossover temperature.

Awards	Value
CAP Physics Prize - Intermediate	\$750
Sponsor: Canadian Association of Physicists	
Excellence Award - Intermediate - Bronze Medal	
Sponsor: Youth Science Canada	
Western University Scholarship	\$1 000
Bronze Medallist - \$1000 Entrance Scholarship	
Sponsor: Western University	
Total	\$1 750



Youth Science Canada PO Box 297 Pickering ON L1V 2R4 www.youthscience.ca / info@youthscience.ca 416-341-0040

