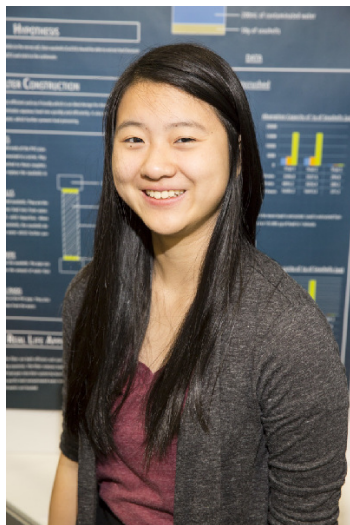


# CWSF 2015 - Fredericton, New Brunswick



## Olivia Li

### Lead it Go: Purifying Lead Contaminated Water with Common Seashells

**Challenge:** Environment

**Category:** Intermediate

**Region:** Greater Vancouver

**City:** Surrey, BC

**School:** Southridge Senior Secondary

**Abstract:** Seashells were studied to create a cheap, efficient and eco-friendly filter that takes out lead. Tests were done to determine if the settling time, pH of the water and size of the seashells affected the rate of extraction. This information is a required to increase the efficiency of lead extraction which may lead to cheaper and quicker methods of removing lead from water.

#### Biography

Olivia is a grade 9 student studying in Surrey BC. She has a deep passion for science, the athletics and music. Olivia has been playing piano for 9 years and guitar for 4 years. In her spare time she competes in various musical competitions as well as accompanying on the piano/guitar for church. She also is on jazz and concert bands as a percussionist and guitarist/bass. Olivia plays numerous sports including volleyball, soccer, track, and ultimate frisbee. She plays ultimate both in and out of school including on the Richmond ultimate summer leagues. Olivia presently analyzes seashells and the effects it has with lead. Considering that most lead contaminated areas are in developing nations she believes that seashells are an innovative way to clean up lead polluted areas while being both cost-effective and efficient. Olivia is considering to pursue in the astronomical or physics field in university.

#### Awards

#### Value

|   |         |
|---|---------|
| Excellence Award - Intermediate - Bronze Medal<br>Sponsor: Youth Science Canada                                 |         |
| Western University Scholarship<br>Bronze Medallist - \$1000 Entrance Scholarship<br>Sponsor: Western University | \$1 000 |
| Total   | \$1 000 |