



CWSF 2012 - Charlottetown, Prince Edward Island



Biography

Hey, I'm Mikaela Preston and I'm currently in grade 10 at Havergal College in Toronto. I think science is the coolest thing in the entire universe (or possibly the multiverse?). I've been doing science fair projects since I was in grade 3 and I plan on doing research all through my life! This year my research dealt with renewable fuel- as have my last 2 projects. I believe that it's really important for us to work towards being able to live sustainably without harming our Earth. Despite the fact that it's probably truthful to say I'm a science nerd (and I totally love it, of course), I'm not a fan of pocket protectors, and I love hanging with my friends, snowboarding, longboarding, going to rock concerts and playing Ultimate Frisbee. As Albert Einstein said, "I have no special talents, I am just passionately curious."

Mikaela Preston

BioHydrogen Fuel from Photosynthetic Bacteria: Studying Single Stage Reactors

Challenge:	Energy
Category:	Intermediate
Region:	York
City:	Markham, ON
School:	Havergal College
Abstract:	Growth rates of hydrogen-producing, non-sulphur, purple bacteria cultures were studied when the primary carbon source was switched between acetate and glucose. The study included mono-species and mixed-species cultures. An unexpected positive outcome was that the growth rates during the glucose runs were equal to or greater than the growth rates during acetate. No difference in growth rates between the mono-species and mixed-species cultures was observed.

Awards	Value
Challenge Award - Energy - Intermediate	\$750
Sponsor: Youth Science Canada	
Excellence Award - Intermediate - Gold Medal	\$1 500
Sponsor: Youth Science Canada	
Western University Scholarship	\$4 000
Gold Medallist - \$4000 Entrance Scholarship	
Sponsor: Western University	
Total	\$6 250



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