

# CWSF 2016 - Montreal, Quebec



## Frances Emery

### What's the Best Anti-Butt? Algae, Coconut or Banana - Designing Eco-Fliters

**Challenge:** Environment

**Category:** Intermediate

**Region:** Peterborough

**City:** Peterborough, ON

**School:** Adam Scott C.V.I.

**Abstract:** Cigarette butt disposal is a major heavy metal pollution concern for waterways. I hypothesized that readily available biofilters, such as coconut husk, banana skin and algae would adsorb and clean up the metals. Duckweed and crickets used as bioindicators showed that algae and coconut were the best biofilters

#### Biography

I am a grade 10 student at Adam Scott in Peterborough, Ontario. I have many interests in extracurricular activities. I am on the hockey team at school and I also play house league. My hobbies consist of being a hockey referee, biology and pet care. I am interested in being someone nobody has seen before. I am very determined and passionate about what I do. I do extremely difficult multi-day canoe and hiking trips with my family. I have some post-secondary plans: I want to go to Fanshaw college in London for biology because a lot of my achievements have been in biology as I love being outdoors and learning about plants, animals and the human body. Some of my achievements have been getting many awards in my regional science fair. I have been competing since grade one and this is my first trip to Canada Wide.

#### Awards

#### Value

Excellence Award - Intermediate - Silver Medal Sponsor: Youth Science Canada	
Western University Scholarship Silver Medallist - \$2000 Entrance Scholarship Sponsor: Western University	\$2 000
Total	\$2 000