

# CWSF 2016 - Montreal, Quebec



## Aaliyah Mahboubi

### Microbial-Film Power Generation

**Challenge:** Energy

**Category:** Junior

**Region:** Pacific Northwest

**City:** Prince Rupert, BC

**School:** Prince Rupert Secondary

**Abstract:** This research demonstrates that power can be harvested from microbial respiration in bog materials from northern British Columbia. My microbial film power generation system was able to run various low power devices. My results show that a graphite plate of 100m<sup>2</sup> could potentially generate about 4 Wh of power per day. The technology could be useful in remote locations without other power sources.

#### Biography

As a young person my aspiration is to contribute my part to the improvement of our planet. In my personal time I take interest in activities that include working to improve my local community. Such as, building inspirational community benches, growing gardens, visiting elders ect. I have recently started learning piano to increase my musicale knowledge. I plan to attend university in the future. I want to study to become an environmental biologist. I enjoy science because I can use it to test my questions and help improve the planets shortcomings. I got my inspiration for this project from my concern for the environment. I wanted to do a project on renewable energy because it is a challenge that the world is presented with. My project idea includes testing different setups, thus I plan to continue my tests next year until I am aware of the best methods. As for all the bright people thinking about doing a project, I encourage you to present your innovations. We are the worlds next generation and we need to demonstrate our ideas and help the improvement of our planet so that we can live in a healthy environment and discover knew things.

#### Awards

#### Value

Challenge Award - Energy - Junior Sponsor: Youth Science Canada	
Excellence Award - Junior - Gold Medal Sponsor: Youth Science Canada	\$250
Western University Scholarship Gold Medallist - \$4000 Entrance Scholarship Sponsor: Western University	\$4 000
<b>Total</b>	<b>\$4 250</b>