

# CWSF 2015 - Fredericton, New Brunswick



## Emily Moseley

### Watt a Waste: Boundary Layer Effect + Axial Flux Generator = Clean Energy

**Challenge:** Energy

**Category:** Junior

**Region:** Central Okanagan

**City:** Summerland, BC

**School:** KVR Middle School

**Abstract:** My innovation is a device that can create electricity using household water pressure, in order to harvest energy from water that is already being used. I constructed an axial flux generator using a Tesla turbine to spin magnets, using the boundary layer effect of the running water. My device successfully created measurable electricity. The water pressure was unaffected by passing through the device.

#### Biography

My name is Emily and I am a grade 7 student at KVR Middle School (Penticton, B.C.) in the Late French Immersion program. I live in Summerland, B.C. I am very active in my school's Me to We club and I even got to attend We Day this year. I am on my school's basketball, volleyball and track teams. I enjoy camping, crafts and community service with the Penticton Pathfinders. I am an active participant in my school's Environment Club. The reason I chose my science fair project is that I'm very concerned about preserving the environment by finding alternative energy sources.

#### Awards

#### Value

Excellence Award - Junior - Bronze Medal Sponsor: Youth Science Canada	
Western University Scholarship Bronze Medallist - \$1000 Entrance Scholarship Sponsor: Western University	\$1 000
Total	\$1 000