

## CWSF 2013 - Lethbridge, Alberta



### Sam Bunka

#### Free Energy

**Challenge:** Energy

**Category:** Junior

**Region:** Central Okanagan

**City:** Kelowna, BC

**School:** Aberdeen Hall Preparatory School

**Abstract:** I am trying to find a way to capture the waste heat from a car engine, or anything that has heat as a wasted byproduct. Only 15% of the energy in a car engine is used, and 60% percent of it is wasted in heat. I have used thermoelectric generators wrapped around an exhaust pipe to capture some of this wasted energy.

#### Biography

I have always been interested in energy, and most recently in how to save it. All 5 of my science fair projects have been based on energy. I use my spare time playing guitar, basketball, and, in the winter, skiing. I have always known the importance of school, and have always tried to excel in everything I do. This is my second CWSF, and last year I was surprised at the competition. I completely underestimated how good the other projects would be, and it reflected on the results. I believe that if you want to do well you should put in ten times the effort of the last national champion.