

CWSF 2013 - Lethbridge, Alberta



Tessa Warhurst

Unlocking Apollo's Suitcase

Challenge: Energy

Category: Junior

Region: Cariboo Mainline

City: Lillooet, BC

School: Cayoosh Elementary

Abstract: This project designs an innovative hybrid solar-thermoelectric light for use in everyday life. Through experiments with each component - solar collector, mirrors, heat capacitor, camera lens, thermoelectric light with hydrocarbon source- a novel new design of a hybrid thermoelectric light was created. Future pilots include a larger parabolic mirror, incorporating the thermopile as heat capacitor, adding the soft ware for the solar tracker.

Biography

I am an identical twin born in Vancouver, BC and currently reside in Lillooet BC. I play piano, violin and also play hockey, draw and paint. I am interested in nature, gardening, travelling, swimming and hiking. I am involved in many community events including fundraising for the Naturalist Society. I have won poetry awards and had my poetry and stories published both at provincial and national levels. I was presented to the house of commons in Victoria, BC when I was 7 after winning a provincial art contest. I have gotten inspiration for this project from travelling in Spain witnessing many wind energy and solar hybrid energy projects as well as a desire to preserve our earth as it is now through utilizing renewable energy. I would like to continue this project and further develop a hybrid solar-thermoelectric light. I think this could be a pilot for larger scale hybrid electricity. I hope to have a career in health care when I get older. I would advise other students to follow through and answer their questions. Science Fair is interesting, fun and can change your path in life.

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