

# CWSF 2017 - Regina, Saskatchewan



## Ayana Nanthakumar

### Keep it Cold and Keep it Clean

**Challenge:** Energy

**Category:** Junior

**Region:** Peel

**City:** Mississauga, ON

**School:** Mentor College

**Abstract:** The purpose of the project was to determine the effect of the ambient temperature and angle of incoming light on solar power generation. As the temperature increased, the voltage surprisingly decreased, and the more perpendicular the angle, the voltage output increased. By utilizing colder temperatures and optimal incidences of incoming light, we can maximize the efficiency of solar power generation.

### Biography

Ayana Nanthakumar is a 13 year old girl in grade 7, born in Birmingham, Alabama and raised in Mississauga, Ontario. She enjoys many sports such as basketball and hockey. She enjoys playing with the competitive element of goaltending in the boys rep league in Mississauga. She is studying at Mentor College, where she has achieved the highest academic average achievement award, along with the science award, math award, and athlete of the year award. She is an eloquent speaker and has a passion for the environment, an inspiration to her science fair experiment on the renewable energy source of solar power, and the effect of ambient temperature and angle of incoming light on solar power energy output. Ayana has plans to continue this experiment for the next year's science fair, to make the experiment even more realistic and applicable to current day problems.

### 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