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MASSACHUSETTS CLEAN TECHNOLOGY AWARDS

A Program from The Foresight Project Inc; www.theforesightproject.org



Region VI, Boston
Clean Tech Award:

Daniel Nguyen, Timilty Middle
School, Roxbury

*“What Is The Effect Of Different
Materials Used To Make A Solar
Collector?”*

ABOUT ME:

My name is Daniel Nguyen. I am a thirteen year old boy who attends the James P. Timilty Middle School in Roxbury. I was born in Boston, Massachusetts, and I have never moved since. My ethnicity is Vietnamese and my parents are from Hanoi in North Vietnam. I speak three languages: Vietnamese, Japanese, and English. I have two older brothers, one who attends Boston Latin Academy and the other who is at Tufts University.

My favorite hobbies and interests are playing the ukulele, drawing, and playing games. I also enjoy playing football, and I'm a right guard in the defensive line of the West Roxbury Falcons football team. I enjoy learning science. I love to travel and find new things. My favorite books are about Greek Mythology. My favorite type of food is Italian – I love Chicken Fettuccini Alfredo.

MY PROJECT:

For my science experiment, I wanted to find out how different materials affect the performance of a solar collector. I predicted that the silver film would reach higher temperature. I built a solar collector and tested three different materials on the reflective surface, to find out which material would be best at reflecting and concentrating the sun's energy. I observed that white paper increased by approximately 7%, aluminum foil increase temperature by approximately 42% and silver film increased temperature by over 120%. It turned out my hypothesis was correct. In conclusion silver film would be the best reflective material used to create a solar collector.