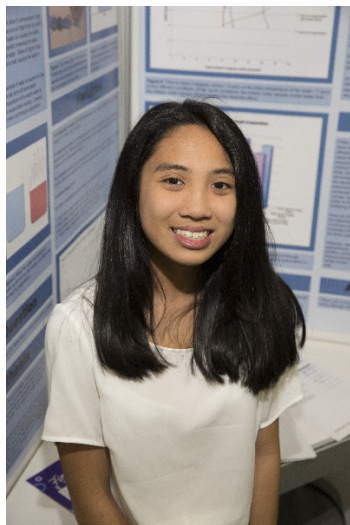


## CWSF 2019 - Fredericton, New Brunswick



### Madison Palabay

#### So Hot It's Cold: The Mpemba Effect

**Challenge:** Discovery

**Category:** Junior

**Region:** Niagara

**City:** St. Catharines, ON

**School:** Power Glen E.S.

**Abstract:** This project attempted to replicate the Mpemba Effect, which can be seen when hot water cools down faster than colder water. This is currently a topic of debate within the scientific community. After conducting experiments, it was found that when evaporation was prevented, the Mpemba Effect was not seen as strongly. Whereas, with water in a large beaker, it showed a stronger Mpemba Effect.

#### Biography

My name is Madison Palabay, a grade 8 student from the Niagara region in Ontario. I've been to the Niagara regional science fair three times, however, this is my first year entering the CWSF. I am very delighted for this new experience and opportunity. Fredericton is a new environment for me, so I can't wait to witness it myself! Ever since I've been doing science fair, my main focus has been on physics. More importantly heat transfer. When I first heard about the Mpemba Effect, I didn't believe it at first. This then lead me to conducting the experiment myself, creating my project. For students who plan to conduct this project, I would advise that the scientist does a large amount of trials, such as 8-10. It's a very time consuming project, that requires a lot of commitment and dedication. In the future, I'd like to do much more trials, but focus on one specific method. This would allow me to control more variables than before, and to look deeper into my project.

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