

## CWSF 2011 - Toronto, Ontario



### Jude Braun

#### A Study of Warm Mix Asphalt

**Challenge:** Energy

**Category:** Junior

**Region:** St. James-Assiniboia

**City:** Winnipeg, MB

**School:** Golden Gate Middle School

**Abstract:** This project is a study of the resiliency of warm mix asphalt (WMA). Paved roads use hot mix asphalt (HMA) which require substantial energy. WMA introduces a catalyst chemical which reduces the temperature required for the binder to adhere to the aggregate. My study involved testing the resiliency of samples of WMA after exposing them to a freeze-thaw cycle and comparing the results to HMA.

#### Biography

I've always been interested in science and engineering stuff. I'm currently in French Immersion and always have been but I know how to speak English too. I want to be an engineer when I grow up. I like designing stuff and building it out of Lego. I'm currently working on a B-17 "Flying Fortress (a WWII bomber)." I've built 4 models that you have to glue and paint and one you don't. I've participated in my Divisional Science Fair 4 times including this year's fair. I've got gold each time. I've had a lot of nose bleeds and this might sound weird, but I REALLY don't like to see ACTUAL blood (like video games are ok, though). Oh yeah, make sure you guys have tons of paper on hand and a pen (not a pencil just in case there's not a sharpener around) because when I'm bored, I NEED to draw (trust me, I DON'T waste paper when I draw stuff!!XD)

Youth Science Canada  
PO Box 297  
Pickering ON L1V 2R4  
[www.youthscience.ca](http://www.youthscience.ca) / [info@youthscience.ca](mailto:info@youthscience.ca)  
416-341-0040