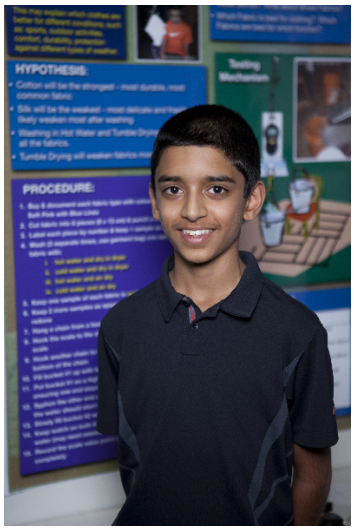
# CWSF 2013 - Lethbridge, Alberta




## Tahir Shamji

### How Strong are your Clothes?

**Challenge:** Resources
**Category:** Junior
**Region:** Ottawa
**City:** Ottawa, ON
**School:** Turnbull School

**Abstract:** My project determined the tear (tensile) strength of commonly used fabrics. Each fabric was put through different conditions such as washing (hot and cold), drying (tumble and air) and sunlight exposure. Each fabric was then tested to determine how much weight was required to tear the fabric. The results were analyzed to determine the strongest fabrics and the impact of common conditions on its durability.

## Biography

I am Tahir Shamji, a Grade 7 student at Turnbull School in Ottawa. I was born in Laguna Beach, California and moved to Ottawa when I was 3 yrs old. I am a friendly (not scary) person who loves all sports, especially golf. During summer visits, I help my Grandfather at his menswear store in Kitchener, Ontario. He has taught me why some types of clothes are more expensive than others, based on quality. This inspired me to test the tensile strength of different fabrics and their durability after being washed/dried in different conditions. I also spent as much time on the presentation as the science ? this is really important! I'm hoping to expand my project beyond the fabric type to include the weave and the thread count. But I have to learn more about "inter-molecular forces" and "hydrogen bonding" ? which is what makes Nylon so strong. I'm really happy to be competing in the National Science Fair. I'm not too worried about winning (though it would be pretty cool), although, it would be great if I could go play a round of golf in Banff! I would totally wear my strong and durable polyester Nike shirt!

| Awards | Value |
|---|---|
| Excellence Award - Junior - Bronze Medal<br>Sponsor: Youth Science Canada | $100 |
| Western University Scholarship<br>Bronze Medallist - $1000 Entrance Scholarship<br>Sponsor: Western University | $1 000 |
| Total | $1 100 |

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