

# CWSF 2011 - Toronto, Ontario



## Claire Longcroft

### The Skid Lid Helmet Helper

**Challenge:** Innovation

**Category:** Intermediate

**Region:** Greater Vancouver

**City:** West Vancouver, BC

**School:** Collingwood School

**Abstract:** Applying biomimetics and an examination of how the human brain cushions itself, I developed the Skid Lid Helmet Helper: a gel-filled cranial cap to be worn under a standard cycling helmet. I tested the efficacy of the Skid Lid by dropping various weights onto the helmet from varied heights and measuring the force of the impact of the collision on a Styrofoam head.

#### Biography

My name is Claire Longcroft and I am a student in Grade 10 at Collingwood School in West Vancouver. This is my third time attending the Canada Wide Science Fair and I am extremely excited to be involved again. My school life is very active as I play on the senior basketball team as well as have recently discovered a passion for art history. I also have been a successful member of the debate team, finishing 2nd in B.C. I have put my oration skills to use as an ambassador for the Juvenile Diabetes Research Foundation sharing my personal experience of living with Juvenile Diabetes. This has provided me the opportunity to meet Prime Minister Harper in 2007 on Parliament Hill in Ottawa. In my free time, I keep myself busy by volunteering at the local community center teaching small children gymnastics and volunteering at the Soup Kitchen which feeds the homeless of downtown Vancouver. I also help out at the local Arts Festival in the summer. Being only in Grade 10, I am not sure what my future will hold, but I know that Science Fairs have taught me to strive for excellence wherever my life takes me.

#### Awards

#### Value

The Actuarial Foundation of Canada Award - Intermediate	\$750
Excellence Award - Intermediate - Silver Medal Sponsor: Youth Science Canada	\$700
The University of Western Ontario Scholarship Silver Medallist - \$2000 Entrance Scholarship Sponsor: University of Western Ontario	\$2 000
<b>Total</b>	<b>\$3 450</b>