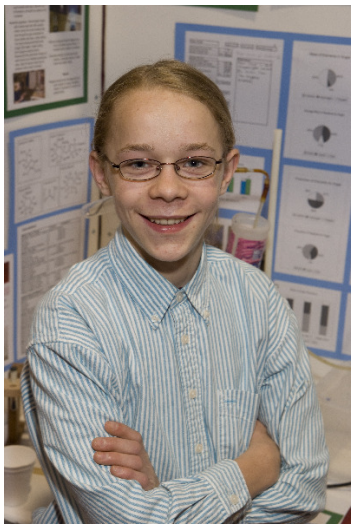
CWSF 2008 - Ottawa, Ontario



Oliver Jourmel

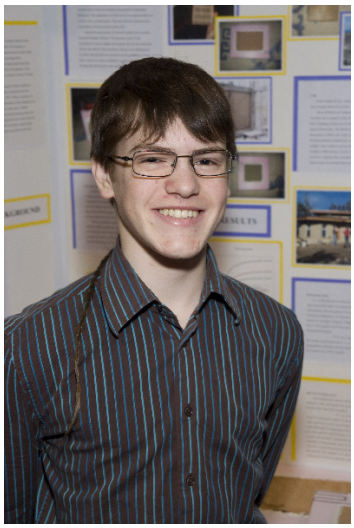
Breaking the Carbon Bond

Division: Physical & Mathematical Sciences / None
Category: Intermediate
Region: Vancouver Island
City: Duncan, BC
School: Frances Kelsey Secondary
Abstract: This experiment was designed to investigate the carbon bond in two different molecules: sucrose, (sugar), and ascorbic acid, (Vitamin C). The experiment determined how the different bonds in sugar and vitamin C broke down, by collecting and analyzing the resulting products of a chemical reaction caused by exposure to heat of a Bunsen burner.

Biography
Oliver Jourmel is a grade 9 student at Frances Kelsey Secondary School on Vancouver Island, BC. He plays violin and piano, and sings in a choir, and enjoys soccer, quarterstaffing, fencing, and riding his bike. He is interested in politics, drama, debating and enjoys his self-paced school. He hopes to study law, science and music at university, to pursue a career in teaching and politics. He has done lots of Science Fair projects over the years, winning his division several times and is very happy to be on the BC team at the Canada-Wide Fair for the first time!

Awards	Value
Honourable Mention - Physical & Mathematical Sciences Intermediate Sponsor: EnCana Corporation	$100
Total	$100

CWSF 2008 - Ottawa, Ontario



Simon Bild-Enkin

Cottage or Castle-Which Was Warmer?An Evaluation of Mediaeval Building Materials

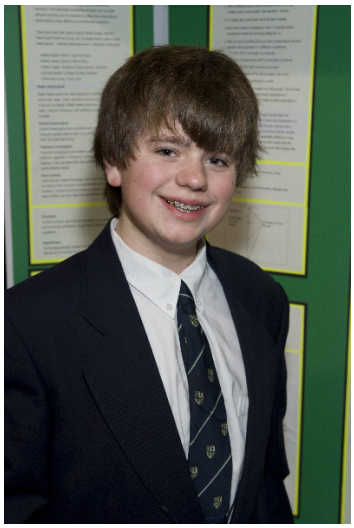
Division: Engineering / None
Category: Senior
Region: Vancouver Island
City: Victoria, BC
School: Esquimalt Community School

Abstract: My experiment measures the thermal insulative properties of mediaeval building materials such as stone, wattle and daub, and cob. By finding the insulative properties of these materials one could answer the question: Whose house was warmer, the prince in a castle of stone, or the peasant in a cob house? By studying these materials one could find how they could benefit us today.

Biography

Simon was born in Edinburgh, but has been living in Victoria, BC, most of his life. He is passionate about making music (sax, bass and guitar), and reading about history and science. He combines history and science in all his science fair projects. This is Simon's fourth project at the Canada Wide Science Fair, and he hopes to add many pins to his collection. Simon has been growing a rat tail for ten years, and will not cut it off.

CWSF 2008 - Ottawa, Ontario



David Haynes

Do Environmental Stresses Affect the Strength of Glue Bonds?

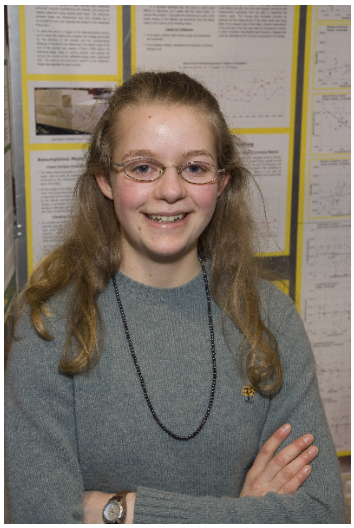
Division: Engineering / None
Category: Intermediate
Region: Vancouver Island
City: Victoria, BC
School: Glenlyon Norfolk School

Abstract: Using household materials this experiment investigated the impact of five environmental stressors on the bond strength of three types of glue. Results on 200 test models (25 groups of 8) showed that certain glue types perform better in wet conditions, while others perform better in high temperatures. Consequently individual glues can be pre-selected for a predictable engineering performance for use in different environmental conditions.

Biography

My name is David Haynes and I was born in Georgetown, Ontario on October 14 1993. I moved from Ontario in 2002 to British Columbia. I live with my two younger brothers and my parents on Prospect Lake, Victoria. I went to school at Royal Oak Middle School. I changed schools when I was in grade 7 to Glenlyon Norfolk School. Since I moved to Victoria I have participated in 4-H, mountain biking, sailing, tennis and fencing. I am also an avid reader, keen snow boarder and model builder.

CWSF 2008 - Ottawa, Ontario



Alice Journel

Dynamic Testing of Strength and Vibration Properties of Hardwoods

Division: Physical & Mathematical Sciences / None
Category: Senior
Region: Vancouver Island
City: Duncan, BC
School: Frances Kelsey Secondary

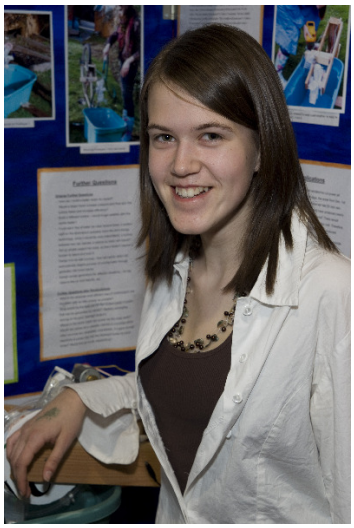
Abstract: This project examined the relationships within and between the strength and vibration properties of hardwoods by dynamically testing the modulus of elasticity, impact surface hardness, logarithmic decrement, and speed of sound in four hardwood species. New equipment was designed and constructed by the exhibitor to do the testing, and extensive use was made of mathematics and graphing to correlate and determine the various relationships.

Biography

I am in grade 11, and attend a self-paced, public school on Vancouver Island, BC. I have been doing science fair projects since I was in grade 1, and this is my fourth CWSF. I am the treasurer of the Current Global Issues Club at my school, and I am a certified Streamkeeper. I enjoy nearly all subjects at school, but I especially like math and the sciences. As such, I plan to attend university after graduating, where I will get a science degree; I hope to some day receive a doctoral degree. I love to read - comics, blogs, science magazines, non-fiction books, short stories, and novels of all sorts. I also like hiking and running, creating bead jewellery, baking cookies, watching Star Trek (a special treat since we don't have television), and spending time with my family and friends. As well, I enjoy listening to and playing music. Last year I completed my grade 6 RCM examination in cello, this year I wrote the RCM Harmony 3 exam, and I have been a member of the Cowichan Valley Youth Choir, which this year was again selected to compete at the Provincial Music Festival, for six years.

Awards	Value
CAP Physics Prize Sponsor: Canadian Association of Physicists	$1 000
Dalhousie University Faculty of Science Entrance Scholarship Senior Gold Medallist - $4000 Entrance Scholarship Sponsor: Dalhousie University	$4 000
NSERC Undergraduate Student Research Award - Senior Gold Medallist Sponsor: Natural Sciences and Engineering Research Council of Canada (NSERC)	$5 625
UBC Science (Vancouver) Entrance Award Senior Gold Medallist - $4000 Entrance Scholarship Sponsor: The University of British Columbia (Vancouver)	$4 000
University of Ottawa Entrance Scholarship Senior Gold Medallist - $20,000 Entrance Scholarship ($5,000 each year for 4 years) Sponsor: University of Ottawa	$20 000
The University of Western Ontario Scholarship Gold Medallist - $2000 Entrance Scholarship Sponsor: University of Western Ontario	$2 000
Gold Medal - Physical & Mathematical Sciences - Senior Sponsor: EnCana Corporation	$1 500
Total	$38 125

CWSF 2008 - Ottawa, Ontario



Monica Whitney-Brown

Raindrops on Rotors

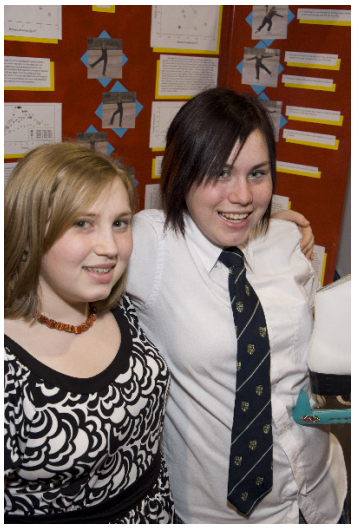
Division: Earth & Environmental Sciences / Environmental Innovation
Category: Junior
Region: Vancouver Island
City: Cowichan Bay, BC
School: George Bonner Middle School

Abstract: My project experiments with using rainwater as an alternative renewable electricity resource. Climate change models for Vancouver Island all predict more rain and fiercer storms, which will mean more power outages, and more need for locally-produced power. I invented four prototypes to generate electricity using water flow from a rain barrel, and succeeded in producing tiny but measurable quantities of electricity.

Biography

Monica Whitney-Brown lives in a fishing village on Vancouver Island with her mom, dad, brother and sister. Spending thirteen months traveling around North America, from L'Anse aux Meadows (Newfoundland) to New Orleans to Inuvik brought them really close. They recovered, however, and became more or less normal once they settled in B.C. She is in grade eight at George Bonner Middle School. Monica plays volleyball and basketball, and enjoys singing, traveling, reading, playing trumpet loudly on her deck, and having fun with friends. Other loves include the ocean, the creatures near her home (like herons, eagles and enormous starfish), laughing so hard her stomach hurts, writing, music, fair trade clothing, sunsets, awesome rain boots, and whipped cream. Future aspirations include becoming a marine biologist, traveling all over the world and learning to walk a tightrope.

CWSF 2008 - Ottawa, Ontario



Hannah Bild-Enkin, Emilie Tranter

Speeding Spins: The Physics Behind a Figure Skating Spin

Division: Physical & Mathematical Sciences / None
Category: Intermediate
Region: Vancouver Island
City: Victoria, BC
School: Esquimalt Community School, Glenlyon Norfolk School

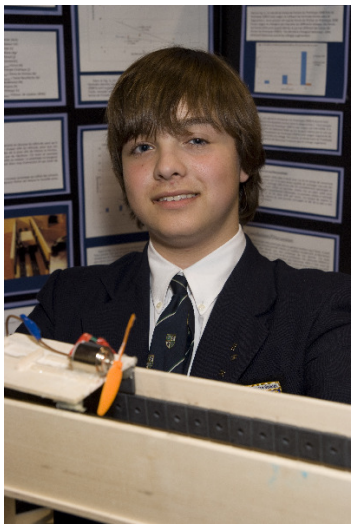
Abstract: We studied the effects of arm position on the angular speed of a figure skating spin. We video-taped one of us, our coach, and we found a video of an Olympic medalist. We had our coach do the spin with masses in her hands. With greater masses, she allowed more friction to slow her down. With less experience, more friction affected the skater's spins.

Biographies

Hannah - Hannah is one of seven people in her school's Vocal Jazz Ensemble. She has done her first musical arrangement for them. After doing tap dance for nine years, ballet for three and jazz dance for one, she decided to join figure skating with her friend and science fair partner Emilie. Hannah enjoys figure skating so much that she has done her science fair project about it. This is Hannah's first Canada Wide Science Fair but she has been dreaming about going to the CWSF for years.

Emilie - Emilie is involved in many things. She is an avid figure skater and dancer. Emilie is also very musical. She enjoys singing all different genres of music and plays the guitar, piano, and flute. Science is her favorite subject in school and she wishes to become a marine biologist after school. This is her first CWSF.

CWSF 2008 - Ottawa, Ontario



Chadi Saad-Roy

Un train magnétique: un mode de transport propre II

Division: Engineering / Automotive
Category: Junior
Region: Vancouver Island
City: Victoria, BC
School: Glenlyon Norfolk School

Abstract: This project tested the effectiveness of magnets in transport. I compared my magnetic vehicles (Prototypes) to a car and evaluated the efficiency of the prototypes. I determined their speed and repeated each measure 7 times with a range of batteries (3V-18V). Forces of friction were determined. The prototype that floated over the new magnet tracks, was better than the car overall.

Biography

My name is Chadi Saad-Roy and I go to Glenlyon Norfolk School in Victoria, BC. I am 13 years old and I am in grade 8. I like reading, playing basketball and judo. Swimming and sailing are other sport I practice. I also enjoy playing and writing music. I play piano and clarinet. One of my compositions earned me and honourable mention in a national competition and first in British Columbia.