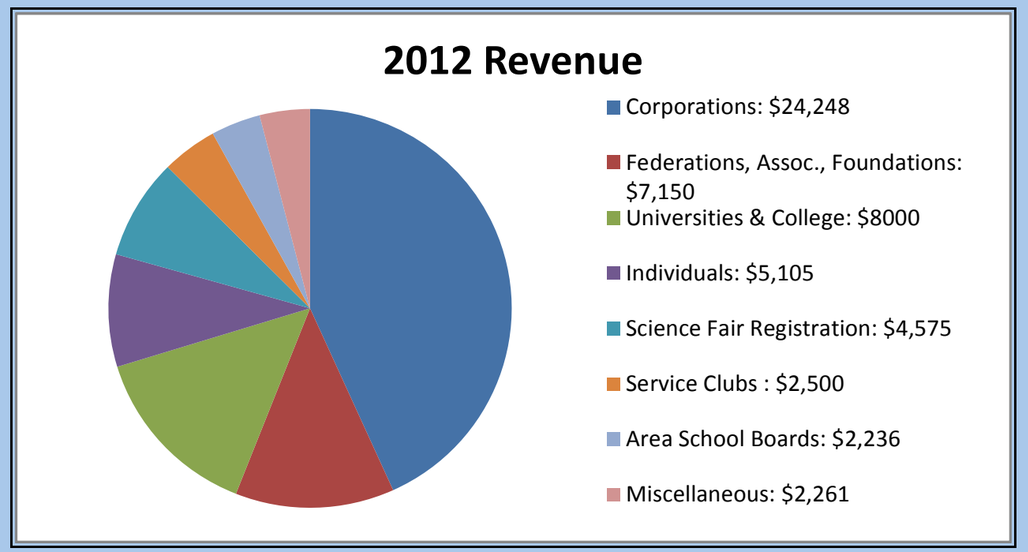
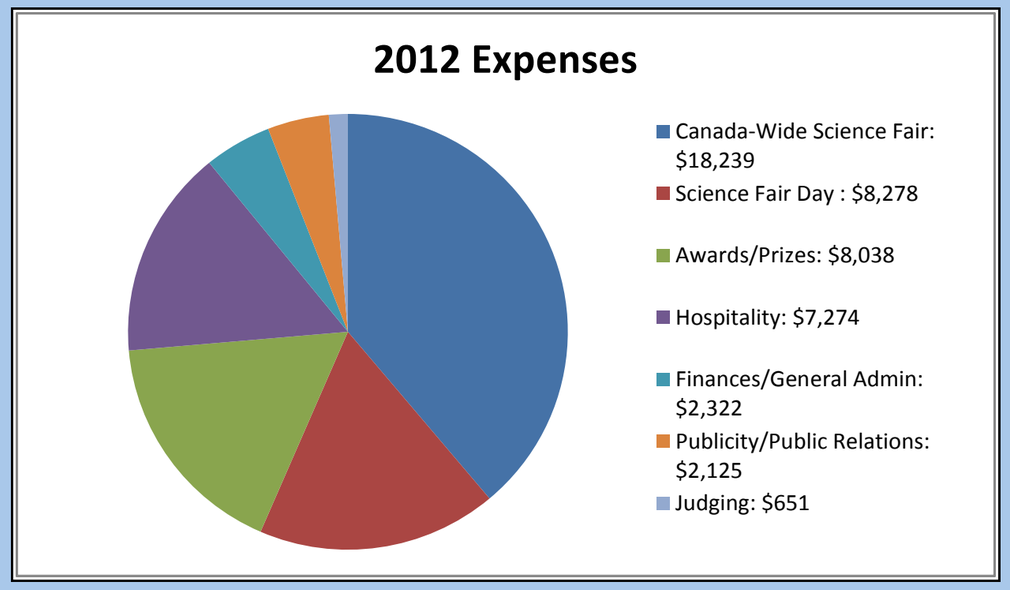
2012 Financials…





Waterloo-Wellington Science & Engineering Fair 2012 Annual Report

Here Come the Judges!

We welcome some new judges every year, but 2012 was extraordinary. In order to strengthen the morning judging experience for the exhibitors, we recruited many more judges for a new total of 140. From this the exhibitors would each have one additional judging interview.

Afternoon Program

The afternoon environmental education program theme for our elementary exhibitors in 2012 was *We All Live Downstream*. The 3 workshops they participated in related to the value of the forest cover in our watershed, how the water from the Titanic iceberg is with us every day, and they watched videos from the One Ocean series. The off-campus trip took them to several nearby-locations to see human interaction with the Grand River. The secondary school exhibitors attended meetings with researchers at all 3 universities and saw some of the research facilities before returning to the Fair for another presentation from Dr. Richard Epp of the Perimeter Institute.

Google This!

We were thrilled to receive a very generous donation from Google this year. In addition to supporting ongoing aspects of the fair, we're using donated funds to create two new videos – one for students and one for teachers. In addition to our recording at WWSEF, 6 teachers have received Playbooks to record activities leading up to their school event. Google's funds will also cover associated costs with editing and producing the final products. A second addition from Google's donation was the Google Young Researcher Award. Alexiendra Ficht (see page 2) will be able to attend a professional conference in her interest area (stem cell research).

Continued Teacher Support

One of the aspects RIM has supported for several years has been a teacher workshop at the Fair from an experienced classroom teacher. Last year several teachers from the Wellington Catholic DSB, and one from Waterloo Region DSB participated.

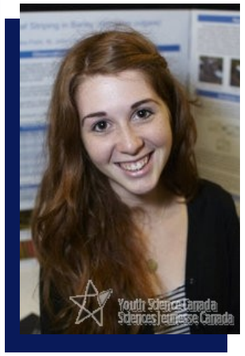
Visit us on the web at www.wwsef.ca

Youth Science Canada
Sciences jeunesse Canada

WWSEF is affiliated with Youth Science Canada

Canada-Wide Science Fair

Prince Edward Island…



Alexandra Ficht, Cambridge, St. John's-Kilmarnock School

A Study of the Leaf Striping in Barley

Alexandra's project aimed to determine whether the variegated leaf striping in barley was controlled by the cytoplasmic genome, nuclear genome, or both. Further investigations were made regarding the number of chloroplasts in normal versus defective leaves to identify the difference in energy production by photosynthesis.

Awards: Excellence Award – Senior - Gold Medal ($1500), Scholarship offers to U of Ottawa ($4000), Dalhousie ($5000), UBC ($4000), U of Manitoba ($5000), and Western ($4000).

Ronald Vuong and Ian Harold Rodgers, Guelph, Centennial Collegiate & Vocational Institute

Electricity from Fluorescent Protein Solar Cells

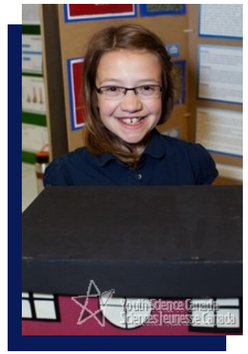
Ronald and Ian's project examined dye-sensitized solar cells that had been supplemented with fluorescent proteins to allow absorption of UV light. As a result, this increased the efficiency of the cells.

Avinash Pandey, Waterloo, Waterloo Collegiate Institute.

Improving Compliance to Lifesaving Medications

Avinash's project sought to alleviate non-compliance in following medical prescriptions through forgetfulness. He created a novel automatic computer program to send reminder text messages to the cell phones of participants. This method showed a significant improvement in compliance in healthy volunteers, stable patients and post-heart attack patients taking critical medications.

Awards: Challenge Award - Health, Intermediate ($750), Excellence Award- Intermediate - Gold Medal ($1500), Scholarship offer, Western ($4000).



Juliana Gallas, New Hamburg, Forest Glen PS

Let's Make Some Noise ... Or Not!

As technology and society continue to change and improve, there has been a marked increase in the amount of sound and noise. However, do we always want to hear the constant noise of technology? Juliana experimented to minimize noise with sound-absorption. She sought to discover which of cork, carpet, carpet underlay, curtains, bubble wrap, or polystyrene foam (Styrofoam) has the best capabilities to

Janelle Tam, Waterloo, Waterloo Collegiate Institute.

Nanocrystalline Cellulose: A Renewable Antioxidant

Janelle's project examined the antioxidant properties of nanocrystalline cellulose (NCC). NCC surface grafted with fullerenes was more effective, and both were more effective than synthetic materials. Janelle also described the role of microstructure in free radical scavenging reactions. Use of NCC, a 'green resource', will reduce our dependence on conventional carbon sources.

Awards: Excellence Award – Senior – Silver Medal ($700), Scholarship offers to U of Ottawa ($2000), Dalhousie ($2500), UBC ($2000) and Western ($2000).

Andrew Ilyas and Nikhil Patil, Waterloo, Centennial PS

Optical Illusions – Does Colour Affect the Illusion?

Andrew and Nikhil's project studied the effect of colour modifications in optical illusions. First, they discovered that vision level doesn't affect susceptibility to the illusion. Their primary focus on colour modifications showed that if the modifications maintained the relationship on the colour wheel then the illusion endured. However, if the colours were assigned randomly, the illusion lost its effectiveness.

Awards: Excellence Award – Junior- Bronze Medal ($300), Scholarship offer to Western ($1000).