GVRSF 2012
Annual Report

www.gvrsf.ca

Greater Vancouver Regional Science Fair

Sponsored and Supported by:

H.R. MACMILLAN SPACE CENTRE

SCIENCE WORLD BRITISH COLUMBIA

Science Fair Foundation BC

Dr. John Hepburn
UBC Vice President Research,
GVRSF Honourary Chair

UBC Science,
Dr. Simon Peacock, Dean

About GVRSF

The Greater Vancouver Regional Science Fair (GVRSF) is the regional science fair for the Greater Vancouver area. It encompasses 8 school districts – Vancouver, Richmond, North Vancouver, West Vancouver, New Westminster, Burnaby, Sunshine Coast (Sechelt etc.), and Howe Sound. GVRSF is open to over 100,000 students from grades 7 to 12 attending public, separate, independent, private and home schools. GVRSF is a registered charity run by a diverse group of dedicated committee volunteers from business, education, and industry.

Major Activities

GVRSF committee volunteers organized and staged the 30th Annual Regional Science Fair at the University of British Columbia in Vancouver.

The University of British Columbia's administration and staff offered excellent support, cooperation and assistance to the GVRSF and provided a warm welcome to all of our students, volunteers, judges, and visitors.

This year GVRSF continued its second year running a Post-Secondary Workshop, available to Grade 11 and 12 students participating in the GVRSF, informing them of future prospects in academia. In addition, GVRSF hosted a Teacher Meet-and-Greet to build a network of Teachers interested in the Science Fair Movement.

In addition, GVRSF 2012 initiated a new program, the CWSF Alumni Mentorship Program, with the goal of helping prepare those moving on to the Canada Wide Science Fair with any improvements to their projects, project reports and presentations.

Chair's Message – Brian Le

I am honoured to have chaired the Greater Vancouver Regional Science Fair Organizing Committee since February 2012. Having served as a member of the committee since 2008 and been a part of the science fair movement since 2004, I am proud to be associated with a society that is focused on engaging our community's youth in science, technology and engineering through project-based science.

This year, the Greater Vancouver Regional Science Fair celebrated its 30th consecutive fair with one of the largest regional fairs in British Columbia in recent years. This has been made possible thanks to the continued support from our sponsors and the dedication of our hard-working volunteers and committee members.

As we look to the future, our committee is dedicated to support students so that Canada can benefit from the innovative science and technology contributions of its youth. To do this, we will implement new aspects to our regional fair over the next year to appeal to youth and the general public. Since last year, the Greater Vancouver Regional Science Fair has started up a Facebook Page (www.facebook.com/gvrsf), Twitter (www.twitter.com/gvrsf) and blog (www.gvrsf.wordpress.com).

Leading up to the 31st Annual GVRSF 2013, we will develop a new look to our main website (www.gvrsf.ca) and work closely with Youth Science Canada (YSC)'s Student Mentorship Association Regarding Technology and Science (SMARTS) and the Science Fair Foundation of BC to increase awareness of science fairs and ethics. We will also continue to build our sponsorship base to help facilitate future changes to the fair and hopefully provide full funding for CWSF selected finalists.

The GVRSF committee welcomes greater participation and appreciates further assistance from all backgrounds, disciplines and specialties. We encourage you, or any of your connections, to contact us (Chair@gvrsf.ca) if you are interested in helping the science fair movement in British Columbia.

There is still much more progress to be made, and as we move forward with long-term visioning and planning, we are committed to enabling the youth of the Greater Vancouver Area to strive for success in science and technology.

Brian Le, B.Sc. | Committee Chair

Science Fair Operation

The Greater Vancouver Regional Science Fair Society is a committee of approximately 30 volunteers, who meet 6 times per year, whose purpose is to plan, and discuss logistics for, the Greater Vancouver Regional Science Fair. This year's fair was held April 12 – 14th, 2012 at the University of British Columbia.

The University of British Columbia (UBC) hosted the Greater Vancouver Regional Fair (GVRSF) 2012, as it has since 1993, in the Student Union Building (SUB). The UBC Faculty of Science's annual donation to the Society includes, among other things, the cost of this venue. All participating Science Fair projects are displayed in the SUB Ballroom and Party Room, where adjudication takes place. School groups are invited to tour the exhibit on the Friday of the fair. Further, the general public is invited for their viewing on the Saturday morning of the fair.

This year there were 359 student participants from 50 schools, one of the largest regional science fairs in the history of GVRSF.

Project registration is done by the student, with help from their teacher and parents, through our website www.gvrsf.ca. The website and database are maintained by designated committee members. The cost per participant is $40.00.

The Faculty of Science at UBC is the main coordinating on-campus body for the annual GVRSF. With their promotion and coordination efforts, up to 21 departments and research units across various UBC Faculties support the Science Fair. In addition, a choice of one out of 17 science laboratory tours was offered to each Science Fair student this year. The lab tours are led by university teachers and researchers, and last one hour each. Student volunteers and parents help chaperone students on the UBC campus. The range of subjects covered is diverse and includes many hands-on activities to engage students in a variety of scientific disciplines. Finally, with the help of UBC Science, a university science orientation workshop was offered for senior students at the Fair.

Faculty members and graduate students from UBC, SFU, and several local colleges act as the judges for the event. In addition, this year we had several judges who are currently working in science and/or technological industries. Confidence in the judging process was high due to our system of spot-checking the judges' rankings.

Students' feedback about their judging experience was also positive. Students felt that the question and answer time with the judges was adequate and that they came away with good ideas and a better understanding of the scientific process.

Fair Highlights

Over **$45,000** in cash, prizes, trips, scholarships and participation awards.

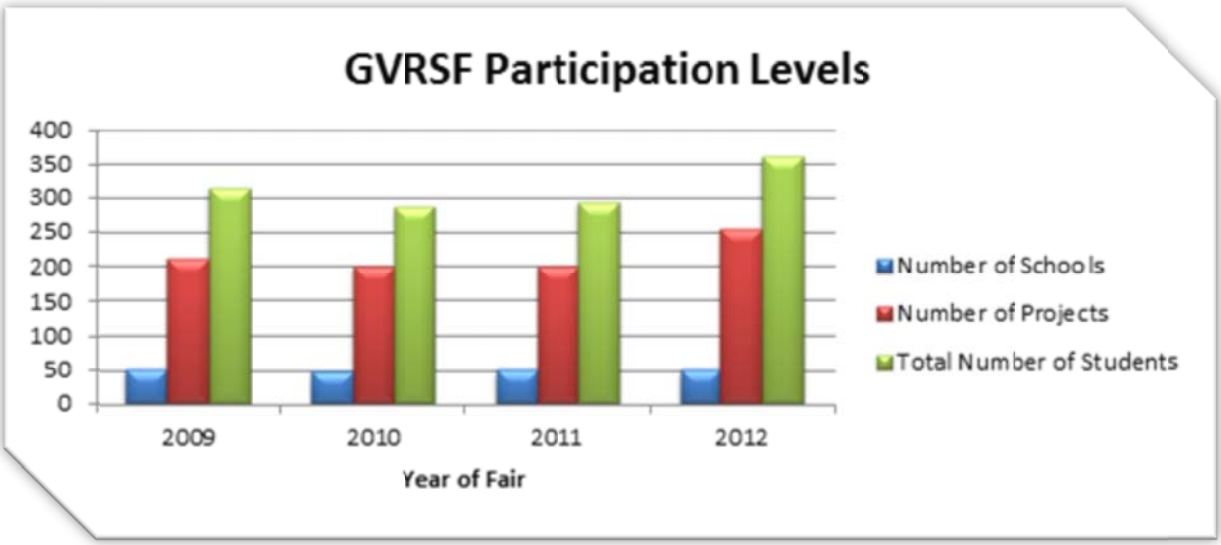
146 students received Merit Awards

75 special awards were received, totalling $5,075 cash plus $16,000 in scholarships

17 students won all-expense paid trips to compete in the Canada Wide Science Fair in Charlottetown, PEI.

Science Show
Sponsored by Science World

The Friday of the GVRSF is an outreach event for both GVRSF participants and Grade 7 -12 students designed to create interest in GVRSF for future fairs. The day's activities consist of schools within the Greater Vancouver area coming in to tour the exhibit halls and near the end of that day this year, Science World put on a Science Show that captivated the minds of our participants.



Competition Results

Our top 17 students won a grand prize trip to the Canada Wide Science Fair (CWSF) in Charlottetown, PEI to represent Team GVRSF and Team BC. This year, Team GVRSF brought back **$60,850 in cash and scholarships**!

National Competition Results – Canada Wide Science Fair

Carlos Daniel Xu (Grade 11, St. George's School, Vancouver) — Gold Medal $29,000 in cash and scholarships
Gravito-Meissner Effect in Neutron Star Systems

Raymond Wang (Grade 8, St. George's School, Vancouver) — Gold Medal $6,000 in cash and scholarships
Smart Knee Assistant

Janice Pang
(Grade 8, Summit Middle School, Coquitlam)
Gold Medal $6,000 in cash and scholarships
Pre-exposing RAW264.7 Macrophages to Microbial Product, PAM3CSK4

Maggie Wang
(Grade 11, Sir Winston Churchill Secondary, Vancouver)
Bronze Medal $11,300 in cash and scholarships
Magnolia: Effects on Breast Cancer Cells

Shifa Hayat
(Grade 10, Britannia Community Secondary, Vancouver)
Bronze Medal $2,050 in cash and scholarships
Fermented Wastes Rule and They Make… Fuel?!

Kais Khimji & Preston Lim
(Grade 11, St. George's School, Vancouver)
Bronze Medal $1,300 in cash and scholarships
The Golden fleece: Innovative ways to clean up oil

Dustin Riley
(Grade 12, Mulgrave School, West Vancouver)
Bronze Medal $1,300 in cash and scholarships
Energy densities of fuels produced from plastic that has undergone thermal depol

Alison Schwenk & Sarah Sheppard
(Grade 9, Prince of Wales Secondary, Vancouver)
Bronze Medal $1,300 in cash and scholarships
Soccer and shoes: the un-toe-ld story

Elizabeth Suen
(Grade 8, York House School, Vancouver)
Bronze Medal $1,300 in cash and scholarships
What's Holding you Back?

Bennett Tan & Jiaying (Carol) He
(Grade 7, Summit Middle School, Coquitlam)
Bronze Medal $1,300 in cash and scholarships
Can Antioxidants prevent free radical damage, and possibly extend life?

Sponsorship

Partners

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Science Fair Foundation BC
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Affiliated With

Youth Science Canada

Join us for the 31st Annual Greater Vancouver Regional Science Fair 2013
Dates: April 11-13, 2013
Location: The University of British Columbia – Student Union Building

GREATER VANCOUVER REGIONAL SCIENCE FAIR

Greater Vancouver Regional Science Fair
c/o HR MacMillan Space Centre
1100 Chestnut Street
Vancouver, BC V6J 3J9

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Science Fair Foundation BC

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The Board

Chair	Brian Le
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