



Bay Area Science and Engineering Fair



BASEF 46th Annual Fair March 29 - April 1, 2006 Mohawk College

Calling all students in grades 7 through 12 who live in Hamilton, Halton, Brant, Haldimand or Norfolk! It's time to gear up for the absolutely free 2006 Bay Area Science and Engineering Fair, taking place March 29th to April 1st, 2006 at Mohawk College, Fennell Campus, Hamilton. On line project registration is tentatively scheduled from February 6th to March 1st, 2006.

BASEF 2005 Highlights

Thanks to the generosity of our sponsors, BASEF awarded an astonishing \$212,580 in cash, awards, scholarships and prizes at the 45th Annual Fair. This prize purse was shared by 375 participants from 64 schools displaying 246 amazing projects. More than half of the projects won at least one award and all students received a goody bag with a retail value of over \$200. More than 200 students attended the all expense paid Activity Day event at Ontario Place.

The BASEF organizing committee could not have staged such a successful fair without the unprecedented cooperation and assistance of our host site, Sheridan Institute of Technology and Advanced Learning.

Team BASEF, with 20 student members was the most successful regional team in Canada at the national science fair. Natalie Raso, BASEF 2005 best in fair winner, continued to excel at both the international and national fairs, winning a third place award at IISEF, and



BASEF 2005 Grand Trip Award Winners

Congratulations to our 24 students who won trips to the Canada Wide Science Fair (CWSF) in Vancouver, B.C. or the Intel International Science and Engineering Fair (IISEF) in Phoenix, Arizona.

overall best in fair at CWSF. Natalie is the number one science fair student in Canada. Congratulations also go to Aaron Hakim and Jordan Bowman who won gold medals at CWSF, making them the top students in Junior Life Sciences and Intermediate Earth and Environmental. In total, BASEF students won more than \$36,000 and seventeen awards at CWSF.

Kayla Cornale was the top Canadian student at IISEF winning an Intel Foundation Achievement Award, five additional special awards along with a third place category award.

Visit our website at www.basef.ca to read further details on the accomplishments of our grand prize trip award winning students.

Big ideas. Infinite possibilities.

Grand Prize Winners from BASEF 2005

1st Place Best in Fair Pinnacle
Natalie Raso
 St. Thomas More

2nd Place Best in Fair Pinnacle
Patrick Martin
 Bishop Ryan

3rd Place Best in Fair Pinnacle
Aaron Hakim
 Appleby College

Roy Middleton Award
Aaron Hakim
 Appleby College

Pfizer Canada Award of Excellence
Natalie Raso
 St. Thomas More

BASEF Chairman's Award
Cameron Walker & Elliott Cheeseman
 Oakville Christian School

BASEF Committee Trophy
 St. Augustine

Herb Gildea Memorial Trophy
 Hillfield Strathallan

Intel ISEF Trip Award Winners
 * alumni of CWSF

Kayla Cornale
 Assumption Secondary

Christopher Balaban & Nikola Lukenda
 Cardinal Newman

Patrick Martin*
 Bishop Ryan

Natalie Raso* of St. Thomas More, was selected by the Youth Science Foundation to attend ISEF.

BASEF students won more than \$8000 and seven awards at ISEF.

CWSF Trip Award Winners
***CWSF Alumni**

Madeleine Martin*
 Bishop Ryan
Kaitlin Lewis
 St. Augustine
Jelena Ilic & Olga Zubic
 Sir Wilfrid Laurier
Aaron Hakim
 Appleby College
Vivian Leung
 Captain R. Wilson
Nicolas Querques & John Spehar
 St. Joseph
Natalie Raso*
 St. Thomas More
Chris Zylk
 Oakville Christian
Alex Leung
 Oakville Christian

Julia Brucculieri*
 St. Agnes
Sarah Macaluso
 St. Augustine
Julia Mikus
 Appleby College
Brian Le*
 Westdale H.S.
Spencer McTavish
 Oakville Christian
Joseph Querques*
 Christ the King H.S.
Jonathan Harris*
 Appleby College
Jordan Bowman*
 St. Mary's H.S.
Eric Coomes
 Appleby College



CWSF
Team BASEF 2005
 Vancouver, British Columbia



BASEF students along with the other members of Team Canada preparing to take on the world at the Intel International Science and Engineering Fair in Phoenix, Arizona..

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Start Your Projects!



The 2006 Fair is open to students registered in grades 7 to 12 in schools within the City of Hamilton, Halton Region, Brant, Haldimand and Norfolk counties, including home, independent or private schools. If your school conducts a science fair, you may only advance to BASEF through your school's fair. ***If your school does NOT conduct a science fair, you may enter BASEF directly.*** We do however require that you still enter as a representative of your school and school board. All registrations from any source are subject to the "maximum number of projects" limits. This "number" is dependent on the space constraints of our host site and will be determined by early January.

Science Success Resource Materials for Students and Teachers

The Science Success student and teacher resource materials are available for download from the BASEF website: basef.ca. The student workbook was designed to guide students through the process of a science fair project from inception to completion, both in school and out of school settings with the help of an adult mentor. It is a must read for students and parents new to science fairs, offering practical hints and advice, and a step by

by step, easy to follow process.

We are currently working on an online version of the student workbook. Our goal is to present the material in a more engaging format for students, with direct online links to related science fair sites and references. Keep checking the BASEF website "News" section for updates on our progress with this new project.

***The Science Success materials are located at:
<http://basef.ca/outreach>***

Teacher Resources

Educational wall posters are an effective way to invite student interest in science. Attractive and scientifically accurate posters can capture the imagination of students and enliven the study of science.

In response to requests from educators, The Wright Center for Innovative Science Education has produced a series of posters that are available for **FREE**. **Poster topics include:**

- The Science of Change:** Three Concepts in Chemistry
- The Human Genome:** Future Promises of DNA Technology

- Earth Anatomy**
- Sphere of Life**
- Cosmic Evolution**
- Size and Scale of Cosmic Systems**

The Wright Center for Innovative Science Education at Tufts University is dedicated to the creation and dissemination of novel teaching techniques and resources for teachers. Their website has a section for teachers with classroom activities and more.



Joseph Querques and Madeline Martin at CWSF 2005, Vancouver, B.C.

Joe won bronze medals in both the Automotive and Physical Science Divisions and Maddie won a silver medal for her Earth and Environmental project.

We recommend that our educators visit:

http://www.tufts.edu/as/wright_center/svl/posters/posts.html

for a preview of available posters and information on ordering a set for your classroom.

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Project Rules and Regulations

All projects will be checked as part of registering at the fair and those not meeting the regulations will need to be corrected before they are accepted for display and judging. The rules and guidelines listed below are based on those provided by YSF Canada (www.ysf.ca) for use at Regional Science Fairs and the Canada Wide Science Fair (CWSF). **Some forms need to be completed before experimentation begins!** We recommend that you print and complete the forms you will need as soon as possible.

Grade 7 and 8 students are eligible for the CWSF and must complete any additional required YSF forms. To find out which forms you will need, visit the student section of the BASEF website. There is a flow chart to help you determine which forms need to be completed.

Projects submitted by **High School students** are also eligible for the Intel International Science & Engineering Fair (IISEF). To meet both CWSF and IISEF requirements, high school students are asked to complete any additional required IISEF forms *instead of* the YSF forms. To find out which forms you will need, visit the student section of the BASEF website. **NB:** ISEF Rules for 2006 in the areas of Pathogenic Agents, rDNA, Microorganisms and the use of Human and Vertebrate Animal Tissue have been changed. Be sure you understand and

comply with both BASEF and IISEF rules.

Please be aware that you may only exhibit the project you registered, using the same Project Title! No substitutions of projects or students will be permitted.

Team Projects: Projects developed by a maximum of two students may be entered and shall be entered in the division of the oldest member of the group.

Continuation or Duplicate Projects: An exhibitor may not present a project identical to a previous year's project at BASEF. An improved project may be entered again into competition, however only research completed since the last BASEF fair may be displayed. Any continuing research must document substantial expansion of investigation and students will be judged on the current year's work only. If you are entering a project which is a continuation of previous year's work, you must complete a Continuation Projects Form, and submit it with your project registration.

Philosophy of Judging

Science fairs provide a unique opportunity for students, teachers, and members of the community to explore science and to increase public awareness of science and the world we live in. Though science fairs are generally a competition, they also provide opportunity for students to display their creative scientific activity beyond the classroom and in the world.

The judging official, a member

of the scientific community, is an essential piece of this experience. The onus is on the judge to provide an experience that is positive and enriching. The experience of judging contributes directly to the student's learning experience as well as the judge's. All judging interviews should be a positive experience for each exhibitor. Most students enjoy the chance to talk about their project with someone both knowledgeable and sympathetic who represents scientific authority. This interaction may directly influence the future scientific activity of the student. The judge must be encouraging, positive, constructive in criticism, and should discuss future research possibilities with the student.

Judging Criteria

Projects are judged out of a total score of 100, broken down into five sections. The sections are weighted as follows:

Scientific Thought/Creativity: 45%

Project Display: 10%

Abstract: 5%

Notebook: 20%

Interview: 20%

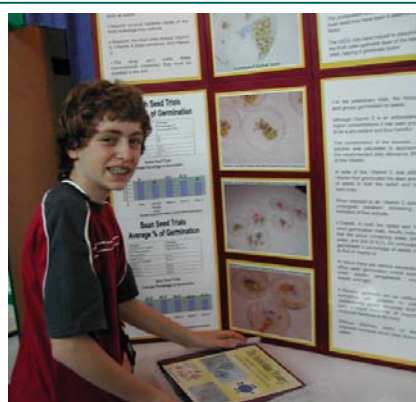
Note: The one page abstract is worth 5% of the marks and half as much as the Project Display. An abstract is a short (one page maximum) summary of the project, well written in a concise, complete and accurate way. The abstract should state the purpose, hypothesis, a brief description of the procedure, results and conclusions. It can also include applications and why the results are important.

The judging forms and criteria are available on the BASEF website at:
http://basef.ca/2005/judges/#judging_form

Big ideas. Infinite possibilities.

The science fair experience begins at BASEF.

Once again, our successful BASEF students were provided with numerous opportunities to travel, attend media events and meet with many of our corporate sponsors and politicians. The experience and self-confidence they gain by displaying and presenting their projects at these venues is priceless.



Aaron Hakim is putting the finishing touches on his project at CWSF 2005. Aaron went on to win a Gold medal as the top Canadian student in Life Sciences.

BASEF students from Hamilton were invited to a recognition event at Hamilton City Hall where they received certificates and a standing ovation from City Council and the Mayor.

Halton students Joseph Querques and Kayla Cornale were invited to do presentations for Halton Regional Council. Kayla also addressed the Burlington BITNET group and the Hamilton Learner Association.

BASEF 2005 students who won special awards sponsored by Dofasco were invited to attend a luncheon in their honour and the opportunity to display their projects at the Dofasco annual Creativity and Innovation Fair.



Patrick Martin, Kayla Cornale and Madeleine Martin chat on air with radio host Bob Sherwin of CHML900 before heading off to IISEF and CWSF.

Practice makes perfect!

Most students don't win big at their first and even second appearance at BASEF. Both of our 2005 top students Kayla Cornale and Natalie Raso learned from their first few BASEF experiences and returned with projects that competed successfully at regional, national and international levels.

If at first you don't succeed, have a look at the BASEF gallery of winning projects on our website to get some ideas on how successful projects are designed.



BASEF 2005 Best in Fair winner Natalie Raso

After BASEF, Natalie took her project, "Using Viruses to Kill Cancer" on the road.

At IISEF she won a Third Place Best in Category followed by **Best in Fair at CWSF**.

Natalie also competed in the Canada Wide Virtual Science Fair where she won a top prize.

She finished the 2005 science fair year with cash prizes totalling more than \$20,000 (not to mention the trips, awards and scholarships). Congratulations!

BASEF 2006: The 46th Annual Fair, Mohawk College Schedule

Wednesday, March 29, 2006: Project set up from 4:00 pm – 8:00 pm in the Mohawk College, Fennell Campus gym

Thursday, March 30, 2006: Judging of projects all day. Students must be present for judging only during the afternoon from 1:00-4:00 pm.

Friday, March 31, 2006: Student Activity Day (details to be announced)

Saturday, April 1, 2006: Projects will be open for public viewing from 9:30 am to noon, followed by the Awards Ceremony from 1:30 pm – 3:30 pm. Students are expected to be present for both events. Project take down will only be permitted after the completion of the Awards Ceremony.

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BASEF 2005 Financial Highlights

BASEF is a volunteer driven, registered charitable organization and relies entirely on the generous donations of sponsors to stage the fair, award all expense paid Grand Trip Awards, provide divisional merit awards and work actively in the community to promote project based science.

We pride ourselves on our prudent spending habits and are pleased to present a brief overview of our financial status. A complete annual report will be available on our website by the end of October and review engagement financial statements are available in January of every year.

Student awards, recognition and activities were 79% of the total disbursements* of \$92,504 and administrative expenses were 8%.

Statement of Operations – Fund Balance

For the period September 1, 2004 - August 31, 2005
(unaudited, with comparative amounts for the year ended August 31, 2004)

Revenue	2005	2004
General	\$74,809	\$66,899
Special Awards	14,425	13,600
Ontario Trillium - Operations		10,900
Ontario Trillium - Outreach		11,700
Interest/GST rebate	2,001	1,104
Total Revenue	91,235	104,203
Total Expenses	92,504	102,569
Excess of Expenses over Revenue	(1,269)	1,634
Fund Balance-Beginning of Year	17,614	15,980
Fund Balance-End of Period	\$16,345	\$17,614

Summary of Disbursements as at August 31, 2005

Expense Summary	
Students: Awards/Recognition/Activities	\$72,769
Site & Judging	11,264
Outreach	900
Administration	7,571
Total Expenses	\$92,504

* In addition to these disbursements to students, each participant received a goody bag (\$200 retail value) and all medal winners (125 students) received an entrance scholarship from Mohawk or Sheridan College. The total prize purse was \$212,000 and the richest of any regional fair in Canada.

Sponsorship Opportunities

We are always looking for new sponsors to help us sustain our growth and ensure that the opportunities our students deserve are available. Our projected budget for the 2006 fair is approximately \$112,000.

Sponsorship is an ideal way to promote your business or personal interests, and more importantly, impact on the lives of our deserving students. Many of our corporate sponsors encourage their staff to participate in the fair as judges and volunteers. Information for sponsors is available on our website and includes our Sponsor Recognition schedule.

Volunteers

Volunteers make BASEF possible. Over 300 volunteers assisted the BASEF 2005 organizing committee to stage, produce and staff the fair.

To find out about volunteer opportunities, visit our website or phone and leave a message. A member of the organizing committee will return your call.

Judges

There is information in the Judging section of our website including on line and paper registration procedures. Judging takes place on Thursday, March 30, 2006 from 8:00 am – 4:00 pm. This is a great way to share your professional expertise and positively impact our students.

BASEF Selected for 1st Annual CreateAthon

Interkom Creative Marketing, a Burlington based firm invited applications from registered charities to participate in their first CreateAthon, a 24 hour, round-the-clock marketing event. BASEF was selected and received thousands of dollars worth of free graphic design, a comprehensive marketing plan and a brand new look for our fair poster and brochure. We also received some complimentary printing. We extend our thanks to the tireless staff who spent more than 24 hours assessing our needs and creating a fabulous new look for BASEF.

BASEF Contact Information

Website: basef.ca

Paper Mail: BASEF, c/o McMaster University, JHE A214, 1280 Main St. W., Hamilton, Ontario, L8S 4L7

Voicemail Hamilton: 905-974-7975

Electronic Mail: basef@basef.ca

Voicemail Oakville: 905-693-7076

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