

BASEF 2015

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55th Annual Bay Area
Science & Engineering Fair
@Mohawk College
March 25 – March 31, 2015

Diamond Sponsors
Mohawk College
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McMaster University



BASEF

**Big ideas.
Infinite possibilities.**

Mohawk College Proud Host of the 55th Annual BASEF



Welcome to the
2015 Bay Area
Science and
Engineering Fair at
Mohawk College.

As a college with a reputation for academic excellence in health and technology, we are proud to once again host one of Canada's largest and longest-running science and engineering fairs.

Congratulations to all the students who have logged many hours on your research projects. Judging by the calibre of the projects submitted every year, our future is in very capable hands. Many students who've competed in BASEF have gone on to win national and international competitions and have gone on to make their mark at colleges and universities.

I also want to commend the sponsors, judges, volunteers, parents and teachers who make BASEF such

a resounding success and showcase for remarkable young talent. Your support and mentorship encourages students to dream bigger, aim higher and exceed all expectations.

Congratulations again to all of the students participating in this year's BASEF. You have represented your schools well and you should be very proud of what you've accomplished.

Good luck!



Ron J. McKerlie
President,
Mohawk College

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Cover image: A scanning electron micrograph of an inflammatory macrophage magnified 8000 times, courtesy of Kyle Novakowski, PhD Candidate, Bowdish lab, McMaster University

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A MESSAGE FROM THE 2015 BASEF CO-CHAIRS

Congratulations to all the participants competing at the 2015 Bay Area Science and Engineering Fair! As BASEF enters its 55th year of operation we reflect upon our motto: "Big Ideas... Infinite Possibilities" and what this means to the students, judges, parents, sponsors and the many visitors to our fair. This is an opportunity for students to not only showcase their projects, ideas, dedication and tenacity, but also to discover themselves as promising scientists and engineers.



Since BASEF's inception in the 1960s, the scientific community has witnessed the cracking of the DNA code; heart transplants; the moon landing; the creation of the internet; medical scanners; nanotechnology; cloning; decoding of the human genome; the realignment of planets; discovery of water on the moon; landing of *Curiosity*; and the discovery of the Higgs boson ... just to name a few. What discoveries will be made in the next 55 years that our students could be a part of?

We are grateful for the continued essential support from our many community sponsors, benefactors, and supporters of special awards designed to promote additional interest and participation in the Fair.

ArcelorMittal Dofasco has returned as BASEF's title sponsor for the ninth year. We are thankful for the very generous funding provided by ArcelorMittal Dofasco's Corporate Community Investment Fund to all aspects of the Fair. BASEF 2015 would not be possible without this.

Primary Fluid Systems continues to invest in BASEF's students - our leaders of tomorrow. They have sponsored the Fair at the Diamond Level for several years. Recipients of Gold, Silver, and Bronze Merit Awards will recognize the Primary Fluid Systems name on their Merit Award certificates for years to come.

Mohawk College, also a Diamond sponsor, is hosting BASEF in its state of the art David Braley Athletic and Recreation Centre (DBARC) for the second time. On behalf of the BASEF 2015 Organizing Committee we extend a special thank you to Mohawk College and its staff, who are very generous with their time, energy and resources, and enthusiastic in their support.

Together with over 30 other sponsors and benefactors, as well as over 40 Special Awards donors, our premier sponsors make it possible for BASEF's students to excel in science and engineering and 'to encourage young people in science and engineering', as is our mission statement.

This year the total value of merit awards, special awards, scholarships and trip awards is expected to top \$175,000.

BASEF is a volunteer-driven registered charity. We acknowledge with thanks the huge efforts of this year's Organizing Committee members who have dedicated countless hours toward making BASEF 2015 a success. Our thanks also to the over 250 volunteer Merit and Special Awards Judges and to the more than 100 other volunteers who help run registration, safety and other fair activities.

Be sure to attend the BASEF awards ceremony on Tuesday March 31st at 7:00 pm in the McIntyre Performing Arts Centre at Mohawk College to celebrate our students' successes.

We hope this year's student exhibitors meet new friends, enjoy their experience, and capture the science fair passion that leads to new research and the discoveries of tomorrow. We congratulate the participants on a job well done and wish them the best of luck in their future endeavours.

Helen Barton
Co-Chair BASEF 2015

Ingrid Munson
Co-Chair BASEF 2015



BASEF 2015 ORGANIZING COMMITTEE

MOHAWK COLLEGE, BASEF 2015 HOST

Ron McKerlie, President
Christine Bradaric-Baus, V.P. Academic

CO-CHAIRS

Helen Barton and Ingrid Munson

PAST CHAIR

Ray Kranyak

TREASURER

Eleanor O'Flynn, C.P.A., C.A.

REGISTRAR

George Geczy; Ass't: Rob Lenjosek

JUDGE IN CHIEF

Neil Manmohan; Ass't: George Geczy

SCIENTIFIC REVIEW

Cathy Hayman (Co-Chair), Dan Bowman (Co-Chair),
George Geczy (Co-Chair), Neil Manmohan (Judge in Chief),
Allison Boyd, Dr. Robert Brown, Rob Lenjosek,
Donna Stack-Durward

SPECIAL AWARDS COORDINATION

Jim Casey, Adrienne Kolich, Eleanor O'Flynn, David Reed

SAFETY

Neil Manmohan

FUNDRAISING

Sue Olynyk (Chair), Peter Child, George Geczy,
Helen Martin, Mike McNally

STUDENT ACTIVITIES

Kevin Hunt

CANADA-WIDE & INTERNATIONAL CHAPERONES

CWSF: Dan Bowman (lead), Dana Bee,
George Geczy, Ingrid Munson
IISEF: Cathy Hayman (Fair Director), Ming Chong

INFORMATION SYSTEMS

George Geczy, Gerard Chiasson, Ken Moyle

MARKETING AND PUBLICITY

Helen Barton (Chair), Wayne Bowdish, Roslynne Crawford,
George Geczy, Glen Whitwell

MOHAWK COLLEGE REPRESENTATIVES

Dusty Noble, Peter Olynyk

MOHAWK STUDENT ASSOCIATION

Jessica Hummel

SPONSOR REPRESENTATIVE

Sandy Walker

FACILITIES

Dan Bowman; Ass't: David Reed, Dana Bee

"CHAMPIONS OF BASEF"

Ola Lunyk Child (Chair), Linda Hazelden, Ruth Mullin

OUTREACH

Allison Boyd, Ryan Buist, Peter Child, Ming Chong,
George Geczy, Linda Hazelden, Vanessa Scanga,
Glen Whitwell

SPECIAL PROJECTS & YES INITIATIVE

Vanessa Scanga, Ryan Buist

VOLUNTEER RECRUITMENT AND COORDINATION

Dana Bee, Glen Whitwell

PHOTOGRAPHY & GRAPHICS

Wayne Bowdish

OFFICIAL FAIR PROGRAM

Lisa Camara

FOOD PLANNING

Dan Prowse

DISTRICT SCHOOL BOARD ADVISORS

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HDSB: Ron Ballentine, Ingrid Munson, Tanya Williamson
HWDSB: Morris Hucal, Rob Lenjosek
HWDSB: Teresa Thompson
Six Nations (INAC): Alex Randall

COMMITTEE MEMBERS AT LARGE

Stephanie Fazzari, Antonella Giancarlo, Julianna Giancarlo,
Jim Monkelbaan

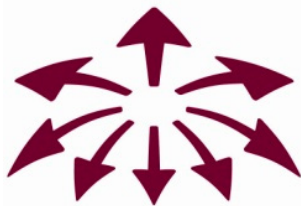
STUDENT ADVISORS

Catharine Bowman, Jack Mogus

Bay Area Science and Engineering Fair
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135 Fennell Ave West, Room F175
Hamilton, Ontario L8N 3T2

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web site: www.basef.ca





M C M A S T E R INNOVATION PARK

175 Longwood Road South, Suite 105
Hamilton, ON, L8P 0A1
905-667-5500 | www.mcmasterinnovationpark.ca

A MESSAGE FROM HONOURARY CHAIR, ZACH DOUGLAS



It is my pleasure as Honourary Chairperson to once again welcome you to the annual Bay Area Science and Engineering Fair (BASEF).

I know from my own experience how important events like this can be in awakening a love of science and engineering in young people. Through participation in BASEF students are exposed to science, engineering and technology in a very important manner. The hands-on, project-based approach to the practice of these disciplines leads directly to thinking innovatively. Ultimately, innovation leads to new solutions to the challenges we face and to new opportunities for growth, both personally and as a society. Quality science, critical thinking and rational approaches to problem solving are perhaps more important today than ever. Events such as BASEF play a very important role in fostering these approaches.

The success of an event like this depends on the hard work of teachers, parents, and event organizers. I would like to acknowledge this and thank them for their commitment and efforts.

Finally, to all the students who are participating in the fair, I want to recognize your hard work and dedication. Congratulations and all the best in the future.

Zach Douglas,
President & CEO
McMaster Innovation Park

Mr. Douglas is the President of McMaster Innovation Park (MIP), an entity affiliated with McMaster University, which has a mandate to redevelop a 37 acre brown field industrial site and transform it into an internationally recognized, world class research and development park.

Since its inception, MIP has completed three buildings and has another under construction. As of the end of 2014 there are more than forty tenants employing approximately 500 people on-site with the expectation that the numbers will grow to more than 600 once the Fraunhofer BEAM Centre is completed. Details of MIP's development are available at www.mcmasterinnovationpark.ca.

Mr. Douglas has held leadership positions with Crown Investment Corporation of Saskatchewan and Saskatchewan Opportunities Corporation. Over the past 30 years, he has established relationships with the business, financial and economic development communities across Canada, and has worked closely with stakeholder groups to encourage collaborative approaches to economic development financing and business development.

Mr. Douglas holds a Bachelor of Law degree from the University of Saskatchewan.

SPONSORS – 2015



TITLE \$15,000 +

ArcelorMittal Dofasco

DIAMOND \$10,000

Mohawk College
Primary Fluid Systems

PLATINUM \$5,000 +

McMaster University
The Hamilton Spectator

GOLD \$2,500 +

Lifetouch
McMaster Innovation Park
Taylor Leibow Accountants & Advisors
Union Gas Ltd.

SILVER \$1,000

Boehringer Ingelheim Canada
Canadian Linen & Uniform Service
City of Hamilton Economic Development
Department
Halton Catholic District School Board
Halton District School Board
Hamilton Chamber of Commerce
Hamilton-Wentworth Catholic District
School Board
Hamilton-Wentworth District School Board
Hillfield Strathallan College
John Deere Canada ULC
Masters Insurance (Hamilton)

BRONZE \$500 +

BattleGoat Studios
D.E.N.M. Engineering Ltd
Hamilton Amateur Astronomers
Hamilton Community Awareness
& Emergency Response
Omicron Machining

FRIENDS

Conservation Halton
Electrical Construction Association of Hamilton
Hamilton Wentworth Occasional Teachers
Institute of Electrical & Electronic Engineers
-Hamilton Section
NewAE Technologies
Nicola Tesla Education Corporation
Optimist Club of Stoney Creek
Partners in Research

BENEFACTORS - 2015

Through personal donations, individuals support the BASEF. BASEF Benefactor Levels celebrate famous Canadian scientists and engineers.
[* Indicates donations made to the BASEF Endowment Fund]

Banting and Best Benefactors (\$1000+)

Sir Frederick Banting and Dr. Charles Best were the co-discoverers of insulin used in the treatment of diabetes. In 1923, Dr. Banting was awarded the Nobel Prize in Medicine

Mike McNally
Ranjan and Monalisa Sur*
David Walker*

Bondar Benefactors (\$500+)

Dr. Roberta Bondar was the first Canadian woman to have flown in space as an international astronaut on board the Space Shuttle Discovery. Dr. Bondar is a trained physician, scientist, astronaut and photographer.

George Geczy
Steve & Cathy Hayman
Peter & Susan Olynyk
Mimi Van den Broeck

Polanyi Benefactors (\$200+)

John Charles Polanyi won the 1986 Nobel prize for chemistry for using chemiluminescence of molecules to explain energy relationships in chemical reactions

Dan & Debbie Bowman
John & Eleanor O'Flynn

McGill Benefactors (\$50+)

Elsie McGill was Canada's first woman graduate in electrical engineering. She also held a master's degree in aeronautical engineering. She is considered the first woman to be a designer of airplanes; During World War II her primary responsibility was the production of the Hawker Hurricane fighter aircraft.

Jim Casey
Cathy Hamilton
Nicola Simmons
Jodi Younger

Smith Benefactors (<\$50)

Dr. Michael Smith won the 1993 Nobel Prize in Chemistry for discovering site-directed mutagenesis: how to make a genetic mutation precisely at a spot in a DNA molecule

BASEF'S ENDOWMENT FUND: THE BAY AREA SCIENCE AND ENGINEERING FAIR FUND

In June 2012, BASEF established an endowment fund with the Hamilton Community Foundation (HCF) under their Agency Endowment Program. Contributions are invested by HCF and the income earned, net of management fees, made available for BASEF to support BASEF's mission and goals. The endowment fund has grown to just over \$23,000. It will become operational in support of BASEF's long term sustainability when the amount in the fund reaches \$25,000.

Please consider the BASEF Endowment Fund as part of your charitable giving. You may send a cheque designated for the BASEF Endowment Fund to BASEF, or send your donation directly to the HCF.

BASEF 2015 SCHEDULE OF EVENTS

All at Mohawk College Fennell Campus

Gymnasium - David Braley Athletic Centre (DBARC)

Theatre – McIntyre Performing Arts Centre



Wednesday, March 25 – On-Site Project Setup/Safety Check

4:00 – 8:00 pm	Registration, set-up and safety checks	Gymnasium
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Thursday, March 26 - Student Activity Morning & Judging of Projects

8:00 – 9:00 am	BASEF students arrive for Morning Activity (Theatre Doors Open at 8:30 am)	Theatre
9:00 – 9:05 am	Introduction – Sponsor Comments	Theatre
9:05 – 9:30 am	SkySMART - by SWHEEB Robert Laurence and Stephen Bieda	Theatre
9:30 – 10:20 am	Keynote Speaker- Canadian Warplane Heritage Travels of VeRA the Lancaster Across the Pond - Craig Brookhouse or Leon Evans	Theatre
10:20 – 11:10 am	Hamilton Amateur Astronomers - New Horizons: Space Exploration Today - John Gauvreau	Theatre
11:10 am – noon	McMaster University Chemistry Presentation Professors Randy Dumont and Paul Harrison	Theatre
12:00 – 1:00 pm	BASEF students to bring their own bagged lunches. Students are not permitted to go elsewhere for lunch and must remain at their projects in the gym.	Gymnasium
1:00 – 4:00 pm	Judging interviews for BASEF students (BASEF participants must remain at their projects during judging)	Gymnasium

Friday, March 27 – *Fair not open to the public or students*

Saturday, March 28 - Public Viewing

9:00 am - 12:00 noon	Public Viewing - Projects are to remain in place until end of Public Viewing	Gymnasium
12:00 – 12:15 pm	Project take-down. All projects must be removed by 12:15 pm	Gymnasium

Tuesday, March 31 - Awards Ceremony

5:15 – 6:30 pm	Champions of BASEF Dinner	By Invitation Mohawk
6:30 pm	Awards Ceremony seating opens	Theatre
7:00 - 9:30 pm	Awards Ceremony	Theatre
9:30 - 10:00 pm	Meeting with chaperones for trip winners and their parents	Theatre

MOHAWK COLLEGE EMERGENCY PROCEDURES
BAY AREA SCIENCE & ENGINEERING FAIR (BASEF)
MARCH 25 TO 31, 2015



The following emergency procedures apply to Mohawk College's Fennell Campus. Please review and familiarize yourself with them so you know how to respond quickly and appropriately in the event of an emergency.

EMERGENCY EVACUATION AND FIRE ALARMS

- 1) At the sound of the alarm, go immediately to the nearest exit and leave the building.
- 2) Take a position away from the building. Remain outside until an "ALL CLEAR" has been given.
- 3) **EXTENDED EVACUATION** – You will be directed by Security and/or Fire Wardens to a sheltered location. If instructed, please move quickly and calmly to the designated location.

PERSONAL SAFETY

If you require immediate assistance for First Aid, Medical or Security reasons, contact Security Services by any of the following methods:

- 1) Dial Extension 55 on any College phone.
- 2) Emergency intercoms are located in the hallways throughout the College. Press the round button to speak directly to a Security Officer.
- 3) Bell pay phones have an emergency button identified by a yellow label. A sign above the phones identifies your location. Press the Emergency button and give your location to the Security Officer.
- 4) Outside Emergency Intercoms. These are recognizable by a blue light. Press the red button to speak directly to a Security Officer.

Emergency Situations:

Main Security Desk	Dial 55 on College phones or press the Emergency button on Bell pay phones, or press the button on the intercom
Police/Fire/Ambulance	Dial 9-911 on College phone or 911 on Bell pay phones

Non-Emergency Situations:

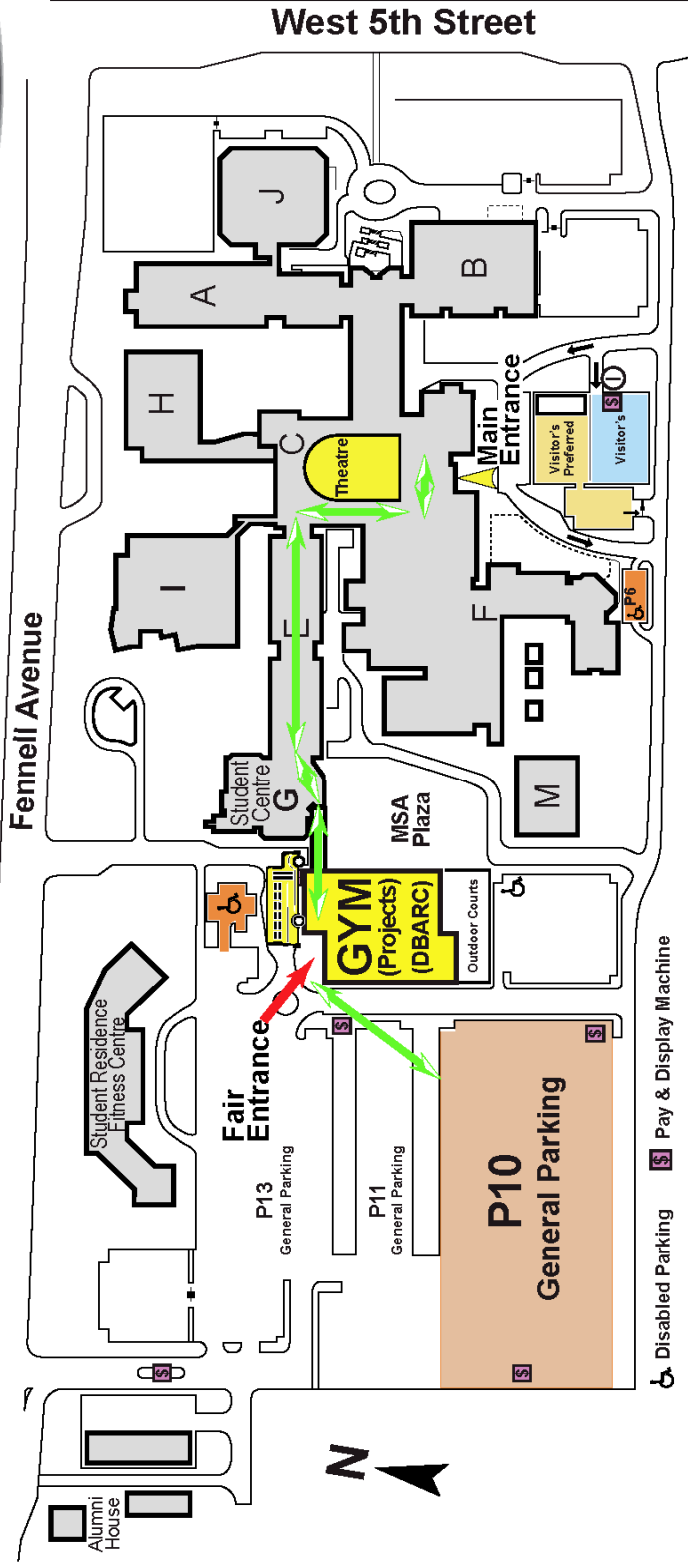
Main Security Desk	Dial 2003 on College phones
	Dial 905-575-2003 or 905-575-2316 on other phones

LOCKDOWN AND HOLD AND SECURE

- 1) If you hear a recorded announcement of a lockdown, immediately cease all activity.
- 2) **REMAIN CALM.** If you are able to do so, safely exit the building immediately.
- 3) **If you are in a hallway**, move to a room or other place of safety immediately.
- 4) **If you are in a classroom or office**, secure the doors, if possible, turn out lights, cover windows or pull shades. Remain quiet and out of sight, staying away from windows or doors.
- 5) Silence cell phones or other sound devices, stay quiet and await instructions. **DO NOT** open the door under any circumstances.
- 6) **If you are in an open area, such as Cafeteria, Library or Gymnasium**, follow the same steps as above. If there are no doors, take shelter under desks, tables, chairs or behind bookcases or other furniture or equipment.
- 7) **END OF LOCKDOWN:** a recorded announcement will be given by Security advising that the emergency situation outside the college has ended.

BASEF 2015

March 25 - March 31, 2015
Mohawk Fennell Campus



Wednesday March 25

Project setup in the Gym
4:00 pm to 8:00 pm

Student drop off at lot P10

Thursday March 26

Activity morning in the Theatre
Students arrive 7:45 am to 8:30 am
Bus dropoff/pickup at North end of DBARC

Student car drop off at Main Entrance
Project judging 1:00 pm to 4:00 pm in the Gym.
Parking in lot P10

Saturday March 28

Public viewing in the Gym
9:00 am to 12:00 pm
Project takedown 12:00 noon

Parking in lot P10

Tuesday March 31

Awards Ceremony in the Theatre
7:00 pm to 9:30 pm
Doors open at 6:30 pm

Parking in lot P10

Friday March 27 - No BASEF students on site - Committee Members only

The Parent Pages (or how to survive Science Fair!)

Congratulations on your decision to support your child's participation in BASEF 2015!

For many students, BASEF 2015 is the first time they are rewarded for their academic endeavours. All BASEF student participants are rewarded with an enriching experience. Students get to participate both in Activity Morning and Judging. Along with a certificate of participation, students will come away with the experience of meeting new people - both judges and other top students - and with the official BASEF "goody" bag.

Many students and parents view science fair projects as a dreaded, compulsory school assignment and have no idea of the rewards available to successful science fair participants. BASEF awards cash prizes, awards and scholarships. The top winners have the chance to win an expense paid trip to either the national or international science fair.

Location of Events: Mohawk College

Note: Science Fair projects will be located in the David Braley Athletic and Recreation Centre (DBARC) . Activity Morning and the BASEF awards ceremony will be in the McIntyre Performing Arts Centre.

Any changes or revisions to the plan will be posted on the BASEF website and will be announced at the fair.

Parking for Registration and Project Setup: There will be signs directing you to the Science Fair as you enter the College from the Fennell Avenue or West 5th Street entrance. Parents are instructed to please **park in Lot P10** and walk to the DBARC gymnasium with your projects. Parking is free during project setup – but remember, **only Lot P10 will be free**. The traffic circle at the entrance to DBARC is a main thoroughfare and a fire route so project drop-offs will not be allowed at the DBARC entrance.

Parking for Activity Day, Public Viewing and the Awards Ceremony: There will be signs directing you to the event locations as you enter the College from the Fennell Avenue or West 5th Street entrance. Parents are instructed to please **park in Lot P10**. Volunteers, parking attendants and Security staff will be able to guide you to the events.

Regular parking fees apply during Activity Day, Public Viewing and the Awards Ceremony: Parking is \$5.50 at all Pay and Display machines. Pay-and-Display machines accept exact cash only (please note they do not give change). Credit Cards are accepted only at the two Pay-and-Display machines closest to the DBARC.

There is a campus map included on the previous page of this program.

Miscellaneous Information

Dress code: We suggest neat and casual, with the emphasis on neat.

Food Allergies and Medical Issues: We ask that you remind the BASEF folks at the Registration Desk and throughout the fair of any food allergies or special medical issues that pertain to your children. BASEF should be considered a public facility regarding food allergies.

The Parent Pages (or how to survive Science Fair!)

Day by Day - Parent Responsibilities

Day 1 – Registration and Set-up

Project set up for the fair occurs **ONLY** on **Wednesday, March 25, 2015 from 4:00 – 8:00 pm at Mohawk College DBARC Athletic Centre. Parking in Lot P10 is free. Park, then carry your project into the Gym.** Projects not set up by 8:00 pm will be deemed as "no shows" and deleted from the judging process. Your child will visit a registration desk and find out their assigned display area in the gym. They will have their photograph taken for an ID badge and receive their goody bag. After the project is set up, one of our many safety inspectors will ensure that the project meets all safety guidelines. **Students cannot leave until their project has been safety checked and passed.** The registration process and project set up usually takes less than an hour. **Be sure all of the safety rules and regulations regarding project size, display materials and ethical guidelines with respect to human and animal testing have been followed.** Complete details are available on the official website: basef.ca/

Day 2 - Student Activity Morning, Thursday, March 26, 2015 @ 8:30 am – 12:00 noon

Students will be welcomed by volunteers at the McIntyre Performing Arts Centre beginning at 8:30 am. The Activity Morning Event starts at 9:00 am. Program details can be found on the BASEF website at: basef.ca/activities

Day 2 - Lunch - Thursday, March 26, 2015 @ 12:00 noon - 12:45 pm

BASEF student exhibitors will be escorted from the McIntyre Theatre to the DBARC Athletic Centre. **Students must bring their own lunch** and eat in the gym. There are no cafeteria facilities available to the students.

Day 2 – Afternoon Judging, Thursday, March 26, 2015 @ 12:45 – 4:00 pm

Students are required to be at their projects for judging between 1:00 – 4:00 pm. **Teachers and parents are not permitted on the Gym floor after 12:45 pm** in preparation for judging, which starts promptly at 1:00 pm. Typically, each student will be interviewed by at least four judges. Regular parking rates apply.

When picking students up after Judging at 4 pm, parents may **park free in lot P10 for 1 hour.** Other parking lots will have parking enforcement present. Do not wait along the roadway at the DBARC Athletic Centre entrance; this is a fire route.

Day 3 - Friday, March 27, 2015

The Fair is NOT open to students or the public on this day. The Fair Committee will be busy compiling results, writing cheques, engraving trophies and preparing for the awards ceremony.

Day 4 - Public Viewing, Saturday, March 28, 2015 9:00 am – Noon

Park in Lot P10. Regular parking fees apply - \$5.50 from the machines. See details on previous page.

We ask that your children be at their projects in the gymnasium for Public Viewing from 9:00 am - 12:00 noon. At noon the students will be asked to remove their projects. **Students may not remove their projects until after the Public Viewing.**

The Parent Pages (or how to survive Science Fair!)

We strongly recommend that you attend the public viewing with your child. It will give you an opportunity to view all of the great projects on display, and to see your own child doing presentations for visitors.

Tours of Mohawk's new facilities are available throughout the morning. Sign up for a tour at the Mohawk College table in the Gym.

Tours will feature:

- **3D Printing Lab (Additive Manufacturing Centre)**
- **Robotics Lab**
- **MEDIC lab**
- **Massage Therapy Lab**
- **the School of Justice and Wellness labs, gym, mock courtroom and tactical training areas.**

The Awards Ceremony – Tuesday, March 31, 2015 7:00 – 9:30 pm

Park in Lot P10. Regular parking fees apply - \$5.50 from the machines. See details on previous page.

The award ceremony is the culmination of the Fair and where the hard work of the students is recognized. The awards ceremony will begin at 7:00 pm sharp but it is recommended to come early, as seating is limited. Doors will open to the theatre at 6:30 pm. If the theater reaches capacity, alternate seating or viewing opportunities will be provided. Details will be announced in the lobby if necessary.

Note: Our trip award winners and a parent are required to attend an information meeting immediately after the Awards Ceremony (approximately one hour).

There! Wasn't that easy? Congratulations to you and your young scientists and engineers! Be sure to visit the BASEF website (basef.ca) throughout the year. You'll find project pictures and abstracts from last year's fair, resource materials and important information about the next fair. Also follow the BASEF winners at basef.ca as they compete at the national and international science fairs. Their progress can be found in "Team BASEF", with links to Facebook and Twitter.

**Omicron Machining
Is Proud to Support
the Bay Area Science & Engineering Fair**



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BASEF thanks its 2015 sponsors

Title

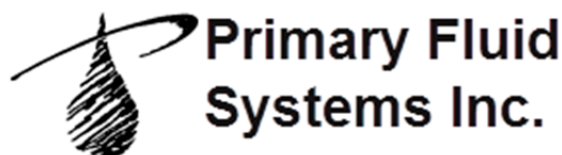
Diamond

Platinum

Gold

Silver

Bronze



\$10,000

\$10,000



\$5,000

\$5,000



\$2,500

\$2,500



\$1,000

\$1,000



\$500

\$500



BASEF Outreach: Resources Available to Students, Teachers, and Parents

The Bay Area Science and Engineering Fair offers students the opportunity to explore problems that matter to them using a longer term project-based approach. BASEF offers a wide range of resources to help students conduct their research; from help getting started, to technical considerations such as how to design a project display, or finding answers to ethical and safety questions. We also offer help to parents and teachers working in support of young researchers.

The main portal for this help is our website. If you only have time to explore one resource, a definitive guide called “Science Success” is a good place to start. It is available at www.basef.ca/outreach. “Science Success” consists of 4 parts: a guide for teachers, a student workbook, and two slide presentations useful for groups of students, teachers or parents.

The page www.basef.ca/resources contains a large number of links to a **range of resources**, with detailed descriptions. To see what a typical BASEF project looks like, **visit our project archives** at www.basef.ca/pastresults

Students, teachers and parents can access help directly from BASEF by emailing us at outreach@basef.ca. Experienced science fair veterans, professional scientists, engineers and educators are available to provide **chalk-talks or workshops**. This is particularly valuable for students attending schools not supportive of science fairs in the BASEF catchment area. **Mentors** can be arranged on request by emailing outreach@basef.ca. The BASEF Outreach program can also help you assemble a team of **judges** for your school fair, and provide help on how to organize the judging and evaluate the results.

Teacher’s Activity Day is an all day seminar for teachers covering everything you wanted to know about science fair projects, including a the application process for students entering BASEF, safety, judging, and how to avoid the most common pitfalls encountered during registration. This course can be booked by emailing outreach@basef.ca .

Youth Engaging in Science (YES) offers students from equal opportunity schools the chance to work collaboratively with researchers and engineers toward completion of a science project eligible for entrance into BASEF (see the YES box below).

Project-based science, as promoted by science fairs, is one of the best ways to engage young people in a longer term, focused initiative where they can explore their own interests, exercise their curiosity, and experience the thrill of discovery. BASEF provides a friendly competition to encourage this in-depth exploration of new ideas. We at BASEF Outreach are here to help you get started with your project. **Need help?** Email outreach@basef.ca or visit our website at www.basef.ca.

The YES Mentorship

The YES (Youth Engaging in Science) Mentorship pairs at-risk youth with mentors in science and engineering at the university, college and in-school levels. Founded by BASEF Organizing Committee members Vanessa Scanga and Ryan Buist, the YES Mentorship recognizes the needs of elementary and secondary school students and provides them with the opportunity of engaged learning by lending mentorship and guidance toward participating in the regional BASEF. If you are interested in participating in YES and wish to learn more about its opportunities, please email youthengaginginscience@gmail.com

BASEF has been instrumental in supporting the YES Mentorship and has created a Special Projects Committee to foster this initiative.



2015 BASEF Champion Teachers

The Organizing Committee
of the Bay Area Science and Engineering Fair congratulates:

Sonja Greene & Lenora Maracle



J.C. Hill Elementary Six Nations



"....for the past three years [these teachers] have taken on the responsibility for having all students attending JC Hill Elementary School complete science fair projects using BASEF guidelines."

"....October to January [these two teachers] use part of their class time each week to usher the students through the pitfalls of preparing a science/culture project"

"....these teachers have brought over 30 student...projects to BASEF"

CONGRATULATIONS TO THE 2015 BASEF CHAMPION TEACHERS!

The Champion Teacher Recognition Award for 2015 includes induction into the BASEF Champion Teacher Hall of Fame, a plaque and \$250 for use in the classroom of each winning teacher. The cash awards are funded by the BASEF 500 Awards Program. A panel of BASEF Organizing Committee members selects the Champion Teacher Recognition Award winners from among those nominated online by their peers, parents and students.

This award recognizes a science teacher who displays a remarkable ability to empower and excite student interest in science and who actively promotes the Bay Area Science and Engineering Fair.

BASEF ACTIVITY MORNING 2015



Presentation Schedule

March 26, 2015

9am – Noon

McIntyre Theatre, Mohawk College

8:30 am – 9:00 am

BASEF Student Drop Off
Proceed to Main Auditorium

9:00 am – 9:05 am

Introduction – Kevin Hunt
Greetings from Mohawk College – Ron McKerlie

9:05 am – 9:30 am

SkySMART by SWHEEB – Robert Laurence and Stephen Bieda

9:30 am – 10:20 am

Canadian Warplane Heritage – Travel of VeRA the Lancaster Across the Pond
Keynote Speaker – Craig Brookhouse or Leon Evans

10:20 am – 11:10am

Hamilton Amateur Astronomers – New Horizons: Space Exploration Today – John Gauvreau

11:10 am – Noon

McMaster Chemistry – Chemistry Professors Presentation
Professors: Randy Dumont and Paul Harrison

Noon – Theatre Exit

Note: Classes of Grade 7-8 Students will be arriving by bus up until 9:30 am.

THANKS TO BASEF 2015 VOLUNTEERS!

Volunteers

Flavio Alfico
Melissa Almeida-Huegel
Denise Brennan-Rieder
Gail Britton
Larry Brodie
Johnny Chaushin
Lyndsey Dunn
Trixie Ellithorn
Thomas Flaxman
Ed Gillis
Mary Helen Gillis
Jodi Hanlon
Trevor Hayhurst
Carlos Hernandez
Daniel Hoeksema
Margaret Jenkins
Michele Joch
Linda Kennedy
Lorna Krauss
Mohammed Arib
Nurul Alam

Volunteers

Darlynton Okpara
Denise Prebul
Calvin Rieder
Julia Rinaldi
Robert Sbrocchi
Doug Scott
Deniz Selcuk
Brenda Sloane
Noah Smith
Taylor Smith
Cosmos Suah
Norman Young
Ruth Mullen
Ahmed Shahzeb
Xin Guan
Bailey MacLean
Tomislav Brkić
Pardeep Kaur
Anthony Hanlon
Samantha Hanlon
Abel Maswa

Safety Inspectors

Richard Aranha
Paul Armstrong
Hannah Bosley
Peter Child
Karin Dunn
C. Fraser Forrest
Peter Frame
Jim Garrett
Bradley Gloin
Susan Hearst
Jaclyn Hurley
Chenwei Ji
Joseph Lasowski
Daniel Lawlor
Justin Lewis
Miranda MacAulay
Paul Martin

Safety Inspectors

Mike McNally
Bradley Michell
Linda Millar
Shane Morin
Carolynn Reid
George Roberts
Nelson Ruiz
Blanco
Joydeep Sengupta
Rebecca Smith
Susie Son
Mark Stewart
Steven Walsh
Paul Wehrle
Norman P. Young
Bruce Young

Photo Team

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Erika Bellhouse
Maureen Crane
Stephanie Drywood
Daniel Hoeksema
Paul Martin
Joydeep Sengupta
Gavin Sheppard
David Starr
Isadora van Riemsdijk
Jane Wood

AVAR Environmental

Justin Lewis

Ballagh & Edward LLP

Valerie Edward

Byrne Engineering

L.H. Ben Van Berkel

Canadian Memorial Chiropractic College

Tracy Chew

Canadian Red Cross

Nelson Ruiz Blanco

City of Hamilton

Daniel Lawlor
Erick Merlos
Carolynn Reid
Megan Lynch

DARTS

Mark Mindorff

Every1Games Professional Services Inc.

Sarah Drew

Future Stars Sports Photography

Rebecca Smith

gotoClassroom

Henry Quach

Halton District School Board

Karin Dunn
Ingrid Munson

Hamilton Health Sciences

Beverly Barbato
Billie Genier
Linda Millar
Dianne Norman

Hamilton Public Health

Rachel Curry
Steven Walsh

Hamilton-Wentworth Catholic District School Board

Donna Stack-Durward
Stefan Sarabura

Hamilton-Wentworth District School Board

Soula Kritikos
Ramani Leverage

Hillfield Strathallan College

John Hannah

Htds Chemicals

Monika Malig

IBI Group

Scott McLaren

IESO

Mississauga (Co-op)

Vihar Champaneri

Keeprite Refrigeration

Peter Frame

LifeLabs

Karin Groen

McMaster Innovation Park

Mark Stewart

McMaster University

Rebecca Eisen
Nickolas Goncharenko
Dhanyasri Maddiboina
Shawna Thompson
Karl Zimmermann
Yaser Al-Saad
Konstantinos Apostolou
Justin Balsor
Bryan Bayao
Simon Beshara
Jan Boer
Dalton Budhram
Nancy Carter
Kriti Chandra
Greg Chen
Douglas Chung
Sara Cormier
Chloe Darling
Neha Dewan
Bhargavi Duvvuri
Saravanan Esakki
Yasamin Fazliani
Jim Garrett
Sophie Geffros
Andrea Gonzalez
Sameh Helmy
Alexander Hume
Bushra Ilyas
Isaac Jackiw
Pranay Jindal
Peter Jonasson
Aadil Juma
Jessica Kafka
Wen Kang
Roksana Khalid
Sara Kilmury
Adrian Kitai
Ryan LaRue



McMaster University (continued)

Yujin Li
Min Liu
Nikola Lukenda
Vladimir Mahalec
Sohail Mahmood
Sydney McQueen
Supriya Modi
Aisha Mustafa
Zainab Naimpoor
Amir Nakhuda
Anjali Narayanan
Stephanie Neufeld
Nia Nijati
Giusepina Pacher
Andrew Parashis
Athanasios Paschos
Mawleshan Pathmarajah
Martin Pham
Sean Rasmussen
Cory Richman
Mitchell Robson
Elyse Rosa
Christopher Rowley
Tarek Sadek
Yasser Salama
Luana Sciallo
Roma Sehmi
Mathangi Selvamenan
Susie Son
Ammarah Soofi
Mary Sourial
Jennifer Stearns
Netusha Thevaranjan
Chris Thomsen
Aisha Tousif
Lucia Myongwon Lee
Gillian England-Mason
Danish Bhatti
Sara Dizzell
Irena Rebalka
Fereshteh Tabatabaei
Varsha Jayasankar
Siddharth Nath
Jane Foster
Christine Mangubat
Neng Wang
Stephen Adams

Mohawk College

Paul Armstrong
Gregory Ashandobe
Robert Balaam

MERIT AWARD JUDGES (Continued)

Mohawk College (continued)

Christine Bradaric-Baus
Gabriela Covaci
Jennifer Curry Jahnke
Alicia Di Carlo
Lisa Fitzpatrick
Michael Foster
Peggy French
John Holloway
Nicole Howe
Andjela Janosevi
Jana Jilek
Nancy Kovacs
Miranda MacAulay
Brian Minaji
Erlinde Mulumba
Breanna Orgar
Megan Pratt
Leigh Richmond
Neilkesh Sharma
Amy Sloan-Forderer
Brian Stefanchuk
Natasha Turner
Jim Vanderveken
Valerie Webber
Shantal Woolsey
Shayne Yeaman
Cynthia Williamson
Diana Kurbanova

Newman Hattersley Ltd.

Bradley Michell

Niagara University

Melissa Tambasco

On Sabbatical

Mile (Mike) Popovic

Ontario Power Generation

Gordon Jeung

Orbital Studios Inc.

Jenny Belanger

Nick Tomkin

Lindsay Kelly

Precept Benchmark

Consulting Inc.

Stephen Bieda

Region of Peel

Steve Lonz

Retired

Ian David Brown

Michael Denford

Carl Easton

Fraser Forrest

Helen Graham

Patel Hansa

Ross K. Johnson

Warren Johnson

Jennine Kafka

Eric McNair

Mike McNally

Beverly Shepard

Retired (continued)

Donald Stevens

Michael Tarjan

Paul Wehrle

Norman P. Young

Otto Zander

Securitas Canada

Susan Hearst

Self Employed

Paul-Benoit Latour

Don Bodnar

Eric Harrison

Tawsif Hossain

Jila Mahalec

Michelle Melone

Sheridan College

Graham Stratford

Stephen Walters Prof. Corp

Trace Molson

Student

Sabine Andrisevich

Cheryl Chow

Jonah Halili

Rachel Kelly

Megan Leeming

Gabriella Mattina

Ian MacMillan

Chantel Markle

Student (continued)

Krishan Newman

Aditya (Dave) Nidumolu

Angelico Obille

Monica Piastun

Margot Smith

Alex Sferrazza

Aamir Shaikh

Muhammad Shoaib

Saipriya Vajravelu

TimePlan Education Group

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UC Berkeley Graduate Student

Hannah Bosley

University of Guelph

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University of Waterloo

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Jennifer Lickver

Xerox

Shane Morin

Zinje Computing

Jerome Miecznikowski

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Adam Aglipay, Derek Brisson, Mike Gulas, Lesley Harschnitz, Craig McGinlay, Christopher McNeish, Haneet Randhawa, Jim Smith, Graham Stephen, Mansoor Tavassoly, Carm Velasco

Artistically Inspired Display Awards

Cathy Hamilton, Cathy Hayman

Association for Iron & Steel Technology Northern Chapter Award

Shannon Clark

Dr Laura Blew Social Sciences Award

Sarah Flaherty

Canadian Institute of Mining, Metallurgy and Petroleum (Hamilton Branch) Awards

Shannon Clark

Canadian Nuclear Society (Golden Horseshoe Branch) Awards

David Girard, Frank Labonte

Cancer Assistance Program Awards

Derek Bishop, Bobby Jo Smith

Chemical Institute of Canada- Hamilton Section Awards

Don Barclay, Jose Moran-Mirabal, Barry Smallbone, Tom Sutton, Dragan Vuckovic

DeGroote Institute for Infectious Disease Research Internship

Dawn Bowdish, Karen Mossman

Doris Casey Disability Solutions Award

Jim Casey

Dillon Consulting Limited

Dean Woolley

Electrical Construction Association of Hamilton Award

Joe Kurpe

Farncombe Family Digestive Health Research Award

Lina Chen, Jan D. Huizinga, Janice Kim

Gowlings Innovation Award

Harleen Khanijoun

Hamilton Academy of Dentistry Awards

Dr. Frank Stechey

Hamilton Amateur Astronomers Awards

Matthew Mannering, Jim Wamsley

Hamilton Association for the Advancement of Literature, Science & the Arts

Michael Jefferson, Tony Petric, Ludvik Prevec

Hamilton Chamber of Commerce Awards

Curtis Ingleton, Paul Lakin

Hamilton Wentworth Occasional Teacher Awards

Amrinder Bedi, Nguyen Trang

Hillfield Strathallan College Awards of Excellence

Marc Edgar

Hillfield Strathallan College Entrance Scholarship Award

Lara De Lazzari, Marc Edgar

Horizon Utilities Corporation Award

Andrew Paesano, Greg Vande Kuyt

John W. Howard Materials Research Award

Dr. Nicola Simmons

Indigenous Peoples of Canada Scientific Study Award

David Reed

Institute of Electrical and Electronic Engineers Hamilton Section

Blair MacCuish

International Science & Engineering Affiliated Fair Awards

Sarah Flaherty, Cathy Hayman, Varsha Jayasankar, Tyler Collins, Calvin Rieder

Laurentian Chapter of SETAC

Eve Gilroy, Oana Birceanu, Joel Nichols, Ryan Prosser

Dr. Colin J.L. Lock Memorial Chemistry Award

Dr. Nicola Simmons

McMaster University Department of Chemistry and Chemical Biology Award

Jose Moran-Mirabal

McMaster University Faculties of Science and Engineering Entrance Awards

Arlene Fajutrao Dosen, Mridula Kumar

McMaster - LEAP Award of Innovation

Brandon Smit, Rebecca Weatherall

McMaster - Venture Engineering Science Award of Innovation

Brandon Smit, Rebecca Weatherall

McMaster University Women in Engineering Entrance Awards

Arlene Fajutrao Dosen, Mridula Kumar

Mechanical Contractors Association of Hamilton Award

Anthony DeChellis

Mohawk College Building & Construction Sciences Awards

Dan Havercroft, Sean Nix

Mohawk College Electrotechnology Department Engineering Technology Awards

Mohy Bayat, Richard Ma, Brian Stefanchuk, John Van Loon

Mohawk College Mathematics Awards

Helen Dakin, John Kezys, Tom Sutton

Mohawk College Computer Science & Information Tech - Computer Excellence Award

Simon Galton, James Long, Brian Minaji

Nikola Tesla Innovation Award

Vic Djurdjevic, Thomas Gale, George Trojanovic

Primary Fluid Systems

Sandy Walker

Professional Engineers of Ontario-Hamilton/Burlington Chapter Awards

Michelle Chin, Gary Closson, David Dean, Erika Kadar, Jim Sweetman

The Research Institute at St. Joes Hamilton, Health Research Award

Jenna Boyd, Jodi Younger

Rotary Club of Hamilton-East Wentworth Award

Paul Crossman, Wayne Ingell

Dr. Nicola Simmons Award in Cognition Studies

Dr. Nicola Simmons

SPIE—The International Society for Optics & Photonics Awards

David Tozer

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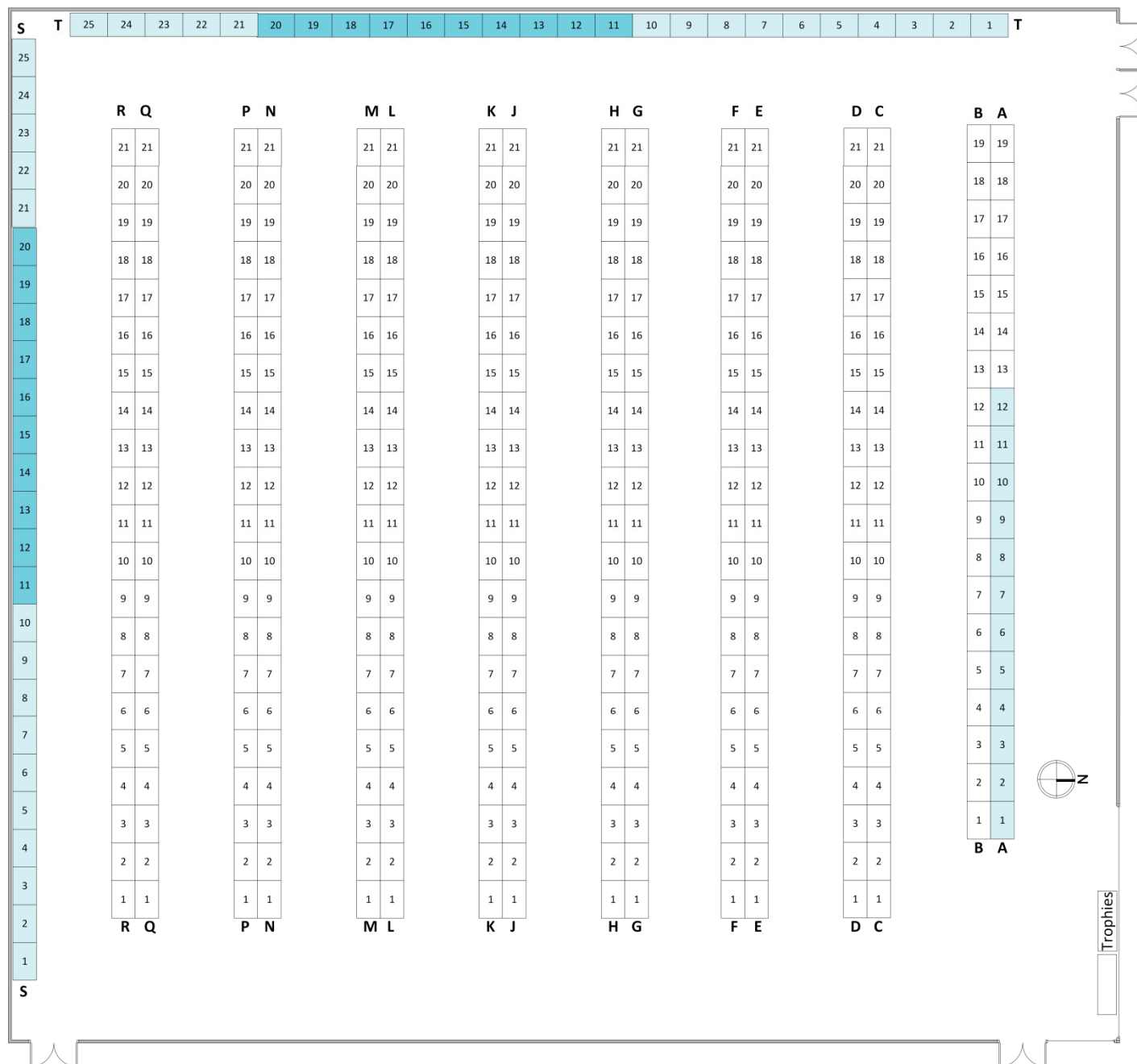
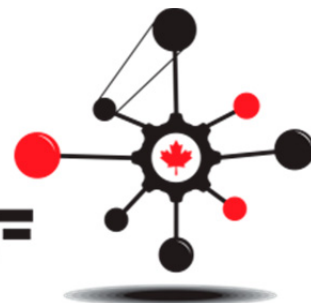
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A Snowy BASEF 2012

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PROJECT LISTING

A01 The Effect of Temperature on a Magnet's Strength

Sara Tufaha
Junior 7/8 Eng & Comp Sci
Al-Falah Islamic School, IND

A02 The effect of building materials on Wi-Fi signals

Maha Chaudhry
Junior 7/8 Eng & Comp Sci
Al-Falah Islamic School, IND

A03 Do Boys or Girls Wash Hands More?

Zachary Maretzki
Junior 7/8 Health Sciences Human
Calvin Christian School (Hamilton), IND

A04 MIND Controller - How Video Gaming Affects the Long-Term Memory

Jonathan Vella
Junior 7/8 Health Sciences Human
Calvin Christian School (Hamilton), IND

A05 STICKY SITUATION - A Qualitative and Quantitative Analysis Of Heavy Metal Contamination of Honey

Julia Dobrovolskis
Intermediate 9/10 Health Sciences Human
Hillfield Strathallan College, IND

A06 Planticide: The Effect That Vinegar Has On Plants

Ally Mitchell, Emily Xu
Intermediate 9/10 Earth & Env Sci
Hillfield Strathallan College, IND

A07 How Private are your Private Conversations?

Nicholas Martin
Intermediate 9/10 Eng & Comp Sci
Hillfield Strathallan College, IND

A08 Mathematical Modeling of Biological Oscillators

Ruihan Wei
Intermediate 9/10 Health Sciences Human
Hillfield Strathallan College, IND

A09 Germ Busters: The Effect of Psychology on Microbiological Outcomes

Alexandra Todd
Intermediate 9/10 Health Sciences Human
Hillfield Strathallan College, IND

A10 Behind the Peel

Erin Demopolis, Maya Oster
Junior 7/8 Health Sciences Human
Hillfield Strathallan College, IND

A11 Insulating Thermal Curtain

Owen Treleaven
Junior 7/8 Earth & Env Sci
Hillfield Strathallan College, IND

A12 Resource Management with Arduino

Thomas Habicht
Intermediate 9/10 Eng & Comp Sci
Home Schooling, IND

A13 Comparing Hockey Sticks

Brenon Lickers, Bailey Hill
Junior 7/8 Eng & Comp Sci
J. C. Hill Elementary, SNS

A14 Beyond the Car

Jaylin Hill, Dion Williams
Junior 7/8 Eng & Comp Sci
J. C. Hill Elementary, SNS

A15 Worldly Worms

Mya Hill-Skye, Luke Martin
Junior 7/8 Earth & Env Sci
J. C. Hill Elementary, SNS

A16 Plants Favourite Jam

Jalen Thomas, Cara Hill
Junior 7/8 Earth & Env Sci
J. C. Hill Elementary, SNS

A17 Hodihnihsoni Thinking

Hailey Powless, Alanea Hill
Junior 7/8 Health Sciences Human
J. C. Hill Elementary, SNS

A18 How do Different Types of Liquids Effect Plant Growth?

MacKenzie Miller, Mia Martin
Junior 7/8 Earth & Env Sci
J. C. Hill Elementary, SNS

A19 Acid Thirst

Julianne Blackbird
Junior 7/8 Earth & Env Sci
J. C. Hill Elementary, SNS

B01 The Effect of Different Substances on the Rate of Metal Corrosion

Mawahib Musa
Junior 7/8 Phys & Math Sci
Al-Falah Islamic School, IND

B02 MSSNG SPEECH: What's New in Autism

Azza Siddiqui
Junior 7/8 Health Sciences Human
Al-Falah Islamic School, IND

B03 The Effect Of Different Materials On Cell Phone Reception

Yusuf Khaja
Junior 7/8 Eng & Comp Sci
Al-Falah Islamic School, IND

B04 The Effect of Hydrochloric Acid on Different Types of Metals

Usba Gohir
Junior 7/8 Phys & Math Sci
Al-Falah Islamic School, IND

B05 Which Rust Remover is Most Efficient

Hanana Gohir
Junior 7/8 Eng & Comp Sci
Al-Falah Islamic School, IND

B06 How To Measure Calories Of Different Foods By Using Homemade Calorimeter

Hashir Jah
Junior 7/8 Health Sciences Human
Al-Falah Islamic School, IND

B07 The effect of humidity on metals

Mahnoor Ahmad
Junior 7/8 Phys & Math Sci
Al-Falah Islamic School, IND

PROJECT LISTING (Continued)

B08 The biomechanics of foot orthotics

Zain Muhammad
Junior 7/8 Health Sciences Human
Al-Falah Islamic School, IND

B09 Perpetual Motion

Haroon Adnan
Junior 7/8 Phys & Math Sci
Al-Falah Islamic School, IND

B10 Best Material to Sound Proof a Room

Abdul-kareem Bhinder
Junior 7/8 Eng & Comp Sci
Al-Falah Islamic School, IND

B11 The Lifesaving Miracle Drug

Hanna Zerrouk
Junior 7/8 Health Sciences Human
Al-Falah Islamic School, IND

B12 Can An Electric Current Move Through Water?

Ridha Qureshi
Junior 7/8 Phys & Math Sci
Al-Falah Islamic School, IND

B13 The effect of carbonated drinks on meat and human health

Numair Aslam
Junior 7/8 Health Sciences Human
Al-Falah Islamic School, IND

B14 What is the reaction between different metals when exposed to different liquids

Saim Qureshi
Junior 7/8 Eng & Comp Sci
Al-Falah Islamic School, IND

B15 Clean Water

Jason Hill
Junior 7/8 Earth & Env Sci
Oliver M. Smith Kawennio:io, SNS

B16 Arthritis and First Nations People

Angelina Bomberry
Junior 7/8 Health Sciences Human
Oliver M. Smith Kawennio:io, SNS

B17 Crack Propagation

Miakun Jones
Junior 7/8 Eng & Comp Sci
J. C. Hill Elementary, SNS



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B18 Juicy Berries

Lakendra VanEvery
Junior 7/8 Earth & Env Sci
J. C. Hill Elementary, SNS

B19 Effects of Oil on Plants

Zachary Martin
Junior 7/8 Earth & Env Sci
J. C. Hill Elementary, SNS

C01 How does caffeine affect the heart rate of daphnia

Kevin Ding
Junior 7/8 Health Sciences Human
Appleby College, IND

C02 Need4Speed

Matthew Daxner
Junior 7/8 Eng & Comp Sci
Appleby College, IND

C03 Boost Your Memory

Annie Chen
Junior 7/8 Health Sciences Human
Appleby College, IND

C04 What's with the light?

Yang Xi (Jenny) An
Junior 7/8 Biotechnology
Appleby College, IND

C05 Take Note.

Nicholas McAleese
Junior 7/8 Phys & Math Sci
Appleby College, IND

C06 C it to Believe it

Tejas Dhami
Junior 7/8 Life Sciences Non-Human
Appleby College, IND

PROJECT LISTING (Continued)

C07 Fear

Kaitlyn Tomas
Junior 7/8 Health Sciences Human
Appleby College, IND

C08 Will it Grow?

Jared Smouter, Henry Schick
Junior 7/8 Earth & Env Sci
Burlington Christian Academy, IND

C09 Testing the Relationship Between Eye Colour and Eyesight

Marielle Ibrahim, Kiveli Madentzidis
Junior 7/8 Health Sciences Human
Burlington Christian Academy, IND

C10 What laundry detergent gets a coffee stain out of a t-shirt the best?

Aimee Belanger
Junior 7/8 Earth & Env Sci
Burlington Christian Academy, IND

C11 Beans Under Radiation

Alicia Lezon, Kimberly Easby
Junior 7/8 Life Sciences Non-Human
Ancaster Senior, HWDSB

C12 The Effect of Music Genres on Plant Growth

Jordan Anderson
Junior 7/8 Life Sciences Non-Human
Hamilton Academy of Performing
Arts, IND

C13 The Effect of types of paper on how a paper air plane flies.

Abby Entwistle
Junior 7/8 Eng & Comp Sci
Hamilton Academy of Performing
Arts, IND

C14 The age of your eggs

Anastasia Chuprakova
Junior 7/8 Biotechnology
Hamilton Academy of Performing
Arts, IND

C15 Candy Chromatography

Myles Mackesy
Junior 7/8 Biotechnology
Hamilton Academy of Performing
Arts, IND

C16 Going Up?

Marcell Maitinsky
Junior 7/8 Phys & Math Sci
Hamilton Academy of Performing Arts, IND

C17 Landslides: Why do rocks slide down slopes?

Inessa Ratevosian
Junior 7/8 Earth & Env Sci
Hamilton Academy of Performing Arts, IND

C18 Smile

Viktoriya Gresova
Junior 7/8 Health Sciences Human
Hamilton Academy of Performing Arts, IND

C19 The Yeast Uprising

Erika Green
Junior 7/8 Biotechnology
Hamilton Academy of Performing Arts, IND

C20 The effect of temperature on magnets

Alexander Sychikov
Junior 7/8 Eng & Comp Sci
Hamilton Academy of Performing Arts, IND

C21 Reach out and meet someone: The power of Allport's contact hypothesis

Kira Clairke, Marina Desousa
Junior 7/8 Health Sciences Human
Hamilton Academy of Performing Arts, IND

D01 Self Repairing Materials

Ben Agro
Junior 7/8 Eng & Comp Sci
Hillfield Strathallan College, IND

D02 Park Green

Anna Spencer
Junior 7/8 Earth & Env Sci
Hillfield Strathallan College, IND

D03 The Effectiveness of Antibacterial and Non-antibacterial Hand Products

Lukas Faulkner
Intermediate 9/10 Health Sciences Human
Hillfield Strathallan College, IND

D04 All About That Post

Michael Timmer, Cameron McRae
Junior 7/8 Eng & Comp Sci
Hillfield Strathallan College, IND

D05 Air, Asthma, and Athletics

Mateo Larrazabal, Samuel
Guilbeault
Junior 7/8 Health Sciences Human
Hillfield Strathallan College, IND

D06 Tackling Obesity One Coffee At A Time

Zahra Panju
Junior 7/8 Health Sciences Human
Hillfield Strathallan College, IND

D07 What is the ideal cricket species to keep as a feeder pet?

Jace Ellis
Junior 7/8 Life Sciences Non-
Human
Hillfield Strathallan College, IND

D08 What's the Scoop on your Stroop?

Faith Heidary, Alexandra Kolios
Junior 7/8 Health Sciences Human
Hillfield Strathallan College, IND

D09 There's Mushroom For Improvement

Justin Semelhago, Matthew Grace
Junior 7/8 Life Sciences Non-
Human
Hillfield Strathallan College, IND

D10 Pineapple perfection

Meghan Mitchell, Sophia
Richardson
Junior 7/8 Earth & Env Sci
Hillfield Strathallan College, IND

D11 Scent o' Mental Memories

Alison Miller-Boothe, Kirsten
Henderson
Junior 7/8 Health Sciences Human
Hillfield Strathallan College, IND

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D12 Unbrickable

Christopher Neibert
Intermediate 9/10 Eng & Comp Sci
Hillfield Strathallan College, IND

D13 Photoprotection: The Effectiveness of Automotive Glass Options In Reducing Ultraviolet Radiation

Sara Kemper, Anastasia Drakos
Intermediate 9/10 Health Sciences Human
Hillfield Strathallan College, IND

D14 Cleaning Green

Daniel Kuhn
Intermediate 9/10 Earth & Env Sci
Hillfield Strathallan College, IND

D15 Bacteria on your Clothes

Pierre Roy
Intermediate 9/10 Earth & Env Sci
Hillfield Strathallan College, IND

D16 'Say Cheese!'

Harrison Lee, Nico Corrado
Intermediate 9/10 Health Sciences Human
Hillfield Strathallan College, IND

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Darius Mahdavi
Intermediate 9/10 Earth & Env Sci
Hillfield Strathallan College, IND

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Laura Willis
Intermediate 9/10 Life Sciences Non-Human
Hillfield Strathallan College, IND

D19 Caffeine Beans: The Effects of Recycled Coffee Grounds on The Propagation Growth Rates of Nutrient Based Vegetation

Veronica Bolis, Alexandra Nemy
Intermediate 9/10 Earth & Env Sci
Hillfield Strathallan College, IND

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Maria Filimonova, Alice Cole
Junior 7/8 Health Sciences Human
Hamilton Academy of Performing Arts, IND

D21 Singing Strings

Sophia Nikitin
Junior 7/8 Phys & Math Sci
Hamilton Academy of Performing Arts, IND

E01 How a Distraction Affects Your Reaction Time

Brooke Sampson
Intermediate 9/10
Biotechnology
Hillfield Strathallan
College, IND

E02 The Water Challenge

Cole Hynes
Junior 7/8 Health Sciences
Human
Hillfield Strathallan
College, IND

E03 Memory vs Time

Natalie Shaheen
Junior 7/8 Health Sciences Human
Hillfield Strathallan College, IND

E04 Don't Be Fuelish

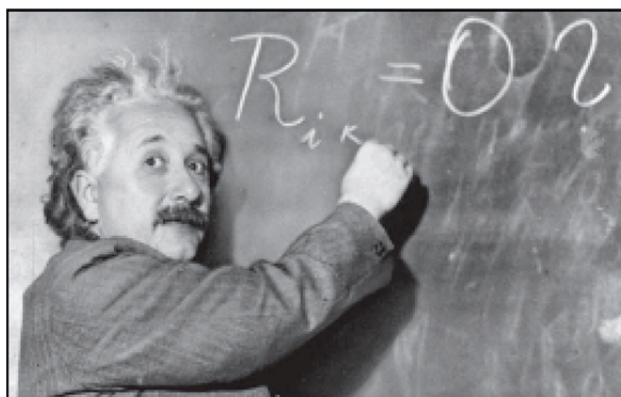
Ashvin Moro
Junior 7/8 Earth & Env Sci
Hillfield Strathallan College, IND

E05 Feel the Vibrations

Madeline Wighardt, Bianca Simone
Junior 7/8 Biotechnology
Hillfield Strathallan College, IND



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E06 How much fluoride are we drinking?

Hannah Oh

Senior 11/12 Health Sciences Human
King's Christian Collegiate, IND

E07 Recombinant Polyclonal Antibody Ebola Vaccine

Emily Dotzlaw

Senior 11/12 Biotechnology
King's Christian Collegiate, IND

E08 Effects of Energy Drinks on Mental and Physical Stimulation

Mark Georgy

Senior 11/12 Health Sciences Human
King's Christian Collegiate, IND

E09 Using Mass to Determine the Effects of Soda on Bone Structure

Alexander Mastrolonardo

Senior 11/12 Life Sciences Non-Human
King's Christian Collegiate, IND

E10 Environment Friendly Ways of Decomposing Styrofoam

Veronica Salama

Senior 11/12 Earth & Env Sci
King's Christian Collegiate, IND

E11 The natural effects of Biotin on humans

Andrea Acosta

Senior 11/12 Health Sciences Human
King's Christian Collegiate, IND

E12 Discovering the future of biodegradable plastics

Nicole Krzewski

Senior 11/12 Earth & Env Sci
King's Christian Collegiate, IND

E13 Acid Etching in Dentistry

Maryam Bahnam

Senior 11/12 Health Sciences Human
King's Christian Collegiate, IND

E14 Biobutanol: Driving Our World Forward

Andrew Antoun, Akaash Viswanathan

Senior 11/12 Earth & Env Sci
King's Christian Collegiate, IND

E15 Effectiveness and Efficiency of Medications

Kirsten Reid

Senior 11/12 Health Sciences Human
King's Christian Collegiate, IND

E16 Pharmaceuticals - Pain Killers

Jonathan Silwanes

Senior 11/12 Health Sciences Human
King's Christian Collegiate, IND

E17 Seaweed as a Natural Salt Substitute in Foods

Nicole Leon, Emma Mackinnon

Senior 11/12 Health Sciences Human
King's Christian Collegiate, IND

E18 Microwave Assisted Extraction of Iodine From Seaweed

Marina Atalla

Senior 11/12 Life Sciences Non-Human
King's Christian Collegiate, IND

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Gavin Little

Senior 11/12 Biotechnology
King's Christian Collegiate, IND

E20 Do Cell Phones Inhibit Growth?

Lucas Brenninkmeijer

Junior 7/8 Biotechnology
Oakville Christian School, IND

E21 Polar Bears in Miami

Megan Bureau

Junior 7/8 Earth & Env Sci
Oakville Christian School, IND

F01 Solar Science

Paige Ketelaars

Junior 7/8 Life Sciences Non-Human
Trinity Christian School, IND

F02 Aerodynamics

Jeffrey Scholman

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Trinity Christian School, IND

F03 The Font Effect: Can Fonts Improve Memory?

Emma Van Hoffen

Junior 7/8 Health Sciences Human
Trinity Christian School, IND

F04 Electric Fear Factor

Nikita Paatz

Junior 7/8 Health Sciences Human
Trinity Christian School, IND

F05 Pop Colours

Claire Groot

Junior 7/8 Health Sciences Human
Trinity Christian School, IND

F06 Bad Beef

Jacob Kerkhof

Junior 7/8 Biotechnology
Trinity Christian School, IND

F07 Typoglycemia: Raednig Gibberish

Jocelyn Stel

Junior 7/8 Health Sciences Human
Trinity Christian School, IND

F08 The Electrolyte Fight

Jaidyn Vanderlaan

Junior 7/8 Life Sciences Non-Human
Trinity Christian School, IND

F09 Which is the juiCest?

Amber King, Chloe Barltrop

Junior 7/8 Life Sciences Non-Human
Rotherglen School (Oakville), IND

F10 FertiFertilizer Footprint (The Effect of Reactive Nitrogen on Marine Life)

Christine Macpherson

Junior 7/8 Earth & Env Sci
Rotherglen School (Oakville), IND

F11 Salty Solution

Marco Sorrenti, Jaden Phillips

Junior 7/8 Earth & Env Sci
Rotherglen School (Oakville), IND

F12 The Polar Busters

Amelia Smith

Junior 7/8 Eng & Comp Sci
Oakville Christian School, IND

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F13 Afterthoughts on Afterimages

Gabriella Moraes Rae
Junior 7/8 Health Sciences Human
Oakville Christian School, IND

F14 Is My Lizard a Leftie?

Reagan Lindsay
Junior 7/8 Life Sciences Non-Human
Oakville Christian School, IND

F15 Bats on the Brink: A Study of the Origin, Spread and Potential Cure for White Nose Syndrome in North American Bats.

Molly Butler
Junior 7/8 Earth & Env Sci
Oakville Christian School, IND

F16 Elixir of Life

Jennifer Schwichtenberg
Junior 7/8 Health Sciences Human
Oakville Christian School, IND

F17 Sugar & Bacteria, Frenemies?

David Houldsworth
Junior 7/8 Life Sciences Non-Human
Oakville Christian School, IND

F18 Flying the Friendly Skies: Efficient Air Traffic Management in Canada

Aidan Britnell
Junior 7/8 Eng & Comp Sci
Oakville Christian School, IND

F19 Coke...Cleaner or Beverage?

Kaya Peros
Junior 7/8 Phys & Math Sci
Oakville Christian School, IND

F20 EyeBot

Mark Gobran
Junior 7/8 Eng & Comp Sci
Oakville Christian School, IND

F21 Left vs. Right

Dominique Greyvenstein
Junior 7/8 Health Sciences Human
Oakville Christian School, IND

G01 Is Green the New Clean?

Hannah Faber
Junior 7/8 Life Sciences Non-Human
Trinity Christian School, IND

G02 Manure Matters

Justin Vos
Junior 7/8 Earth & Env Sci
Trinity Christian School, IND

G03 Wi-Tricity

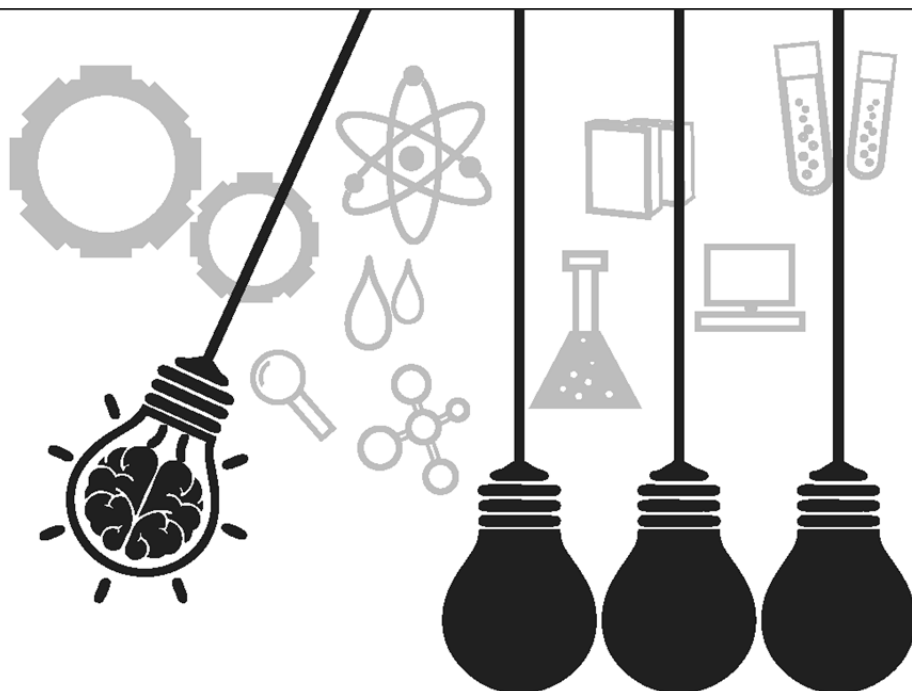
Michael Wolfe
Junior 7/8 Eng & Comp Sci
Trinity Christian School, IND

G04 Do You Know Your Numbers?

Anna Masengi
Junior 7/8 Health Sciences Human
Trinity Christian School, IND



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PROJECT LISTING (Continued)

G05 LIAR LIAR!

Katelyn Weinstein
Junior 7/8 Health Sciences Human
Trinity Christian School, IND

G06 Mixed Messages

Elise Schwarz
Junior 7/8 Health Sciences Human
Trinity Christian School, IND

G07 Ice Cold Distraction

David Schenk
Junior 7/8 Health Sciences Human
Trinity Christian School, IND

G08 Filtering Estrogenic Substances from Liquid Waste at the Household Level

Maggie Williams
Intermediate 9/10 Earth & Env Sci
Ancaster High, HWDSB

G09 Optimizing a Hybrid Rocket Engine

Matthew McGuire
Senior 11/12 Eng & Comp Sci
Ancaster High, HWDSB

G10 'Think Fast!'

Kiernan Knight, Leina Burley
Junior 7/8 Health Sciences Human
Ancaster Senior, HWDSB

G11 Water Purification with Bio Waste

Christoph Fusch
Junior 7/8 Earth & Env Sci
Ancaster Senior, HWDSB

G12 How Temperature Affects A Hockey Puck

Matthew Delry, Jake Sciullo
Junior 7/8 Phys & Math Sci
Bellmoore, HWDSB

G13 Affects Of Gender On Visual Illusions

Madison Cooper, Emma Cameron
Junior 7/8 Health Sciences Human
Bellmoore, HWDSB

G14 Jello vs Fruit

Kyren MacLeod, Madison Dowdle
Junior 7/8 Phys & Math Sci
Bellmoore, HWDSB

G15 Penetration Experiment

Austin Rennie, Aidan Collerman
Junior 7/8 Phys & Math Sci
Bellmoore, HWDSB

G16 Which Water Filter Filters Water The Best?

Carter Thomson, Colin St.Aubin
Junior 7/8 Earth & Env Sci
Bellmoore, HWDSB

G17 Acid Attack

Sana Abdullah
Junior 7/8 Phys & Math Sci
Bellmoore, HWDSB

G18 How Does Sugar Effect Us?

Madeline Sadai, Alyssa Butts
Junior 7/8 Health Sciences Human
Bellmoore, HWDSB

G19 Fruit and Veggie Power

Alissa Murray
Junior 7/8 Phys & Math Sci
Bellmoore, HWDSB

G20 The Cooling Effect

Sophie McMullin, Maddy Gaspar
Junior 7/8 Earth & Env Sci
Bellmoore, HWDSB

G21 Can I Eat That Bacon

Akshayan Ahilan
Junior 7/8 Biotechnology
Dalewood, HWDSB

H01 Vaccines

Alexa Kouroukis
Junior 7/8 Health Sciences Human
Norwood Park, HWDSB

H02 Reactive Reflexes

Claire Sutherland-Case, Lauren Patiakas
Junior 7/8 Health Sciences Human
Norwood Park, HWDSB

H03 The Disney Effect

Hannah McCourtie
Junior 7/8 Health Sciences Human
Norwood Park, HWDSB

H04 You have to 'C' it to believe it!

Tasneem El Siddig, Zainab Saeed
Junior 7/8 Biotechnology
Hillcrest, HWDSB

H05 This doesn't add up

Chad Moody, Nick Mancini
Junior 7/8 Earth & Env Sci
Hillcrest, HWDSB

H06 GENDERalization

Jaidia Lynch, Esther Goombs
Junior 7/8 Health Sciences Human
Hillcrest, HWDSB

H07 Disinfect To Protect

Rylee Murphy-Scott, Amanda Whelan
Junior 7/8 Life Sciences Non-Human
Hillcrest, HWDSB

H08 Germination Extermination

Abuzar Haider, Devon Mancini
Junior 7/8 Biotechnology
Hillcrest, HWDSB

H09 Alcohol & Prosthetics

Kevin Ngo, Navil Chaklader
Junior 7/8 Biotechnology
Hess Street, HWDSB

H10 Zombie Metal vs Plants : Does decayed metal affect plant growth?

Irene Ly, Christina Oeun
Junior 7/8 Earth & Env Sci
Hess Street, HWDSB

H11 E-Lemonator

Mimi Wang, Nhi Duong
Junior 7/8 Biotechnology
Hess Street, HWDSB

H12 Growing plants using liquids

Ashley Amis, Taylor Ready
Junior 7/8 Life Sciences Non-Human
Guy B. Brown, HWDSB

H13 Why can't we find the answer to evolution?

Ashlynn Kroes, Meagan Gallina
Junior 7/8 Health Sciences Human
Guy B. Brown, HWDSB

H14 Virus Molecule Tracker

Ahmed Ibrahim
Intermediate 9/10 Biotechnology
Glendale, HWDSB

PROJECT LISTING (Continued)

H15 Stay Focused: How Distractions Affect Assessment Results

Noah Pugh Martin, Tristan Richards
Junior 7/8 Phys & Math Sci
Dundas Central Public, HWDSB

H16 Mix and Match

Pamela Wang, Ruby Hye
Junior 7/8 Life Sciences Non-Human
Dalewood, HWDSB

H17 Battle of the Batteries

Timothy Lauinger, Paras Pujari
Junior 7/8 Earth & Env Sci
Dalewood, HWDSB

H18 Mnemonic Memory

Arooba Amir, Rakshita Jain
Junior 7/8 Health Sciences Human
Dalewood, HWDSB

H19 Dangers Of Cell Phone Radiation

Syed Amman Waheed
Junior 7/8 Health Sciences Human
Dalewood, HWDSB

H20 The Effect of Nutrition on Fly Behaviour

Varun Iyengar
Junior 7/8 Life Sciences Non-Human
Dalewood, HWDSB

H21 The Cooking Effect

Liam Yoell
Junior 7/8 Life Sciences Non-Human
Dalewood, HWDSB

J01 Is typoglycaemia faster to read?

Tierney Pomfret, Larissa Kouroukis
Junior 7/8 Health Sciences Human
Norwood Park, HWDSB

J02 Fruits and vegetables high in volts?

Abinaci Bahra
Junior 7/8 Phys & Math Sci
Norwood Park, HWDSB

J03 Tidal Effect

Abby Janssen, Avery Irwin
Junior 7/8 Earth & Env Sci
Norwood Park, HWDSB

J04 Restoring the Environment Using Plants

Tahsin Karim, Fardeen Rahman
Junior 7/8 Earth & Env Sci
Queen Victoria, HWDSB

J05 Can You Smell The Difference?

Sophia Wilson, Alexandra Bednarowski
Junior 7/8 Health Sciences Human
Sir William Osler, HWDSB

J06 Organic vs. Non-Organic Fruits and Vegetables

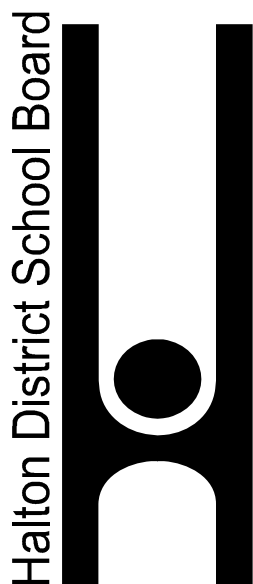
Grace McGuire, Amy Woodworth
Junior 7/8 Life Sciences Non-Human
Sir William Osler, HWDSB

J07 Growing Solutions

Amanda Moreton, Lauren Reeves
Junior 7/8 Life Sciences Non-Human
Sir William Osler, HWDSB

J08 Effects of Pesticides on the Brain and Relationship with Neurodegenerative Diseases

Anika Gupta
Junior 7/8 Life Sciences Non-Human
Sir William Osler, HWDSB



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PROJECT LISTING (Continued)

J09 Does the cold affect your blood pressure?

Zoe Chisholm
Junior 7/8 Health Sciences Human
Sir William Osler, HWDSB

J10 Heads Not Meds

Madeline Bell, Taiya Lakhanpal
Junior 7/8 Health Sciences Human
Sir William Osler, HWDSB

J11 Synesthesia

Keegan Tournay
Junior 7/8 Health Sciences Human
Sir William Osler, HWDSB

J12 Pollution

Viv Holmes, Ria Pathak
Junior 7/8 Earth & Env Sci
Sir William Osler, HWDSB

J13 Sugar or Sweetener which is better for Diabetics

Alethea Xagoraris
Junior 7/8 Health Sciences Human
Sir William Osler, HWDSB

J14 Does physical activity reduce stress?

Giulia Cain, Chloe Rexdiemer
Junior 7/8 Health Sciences Human
Sir William Osler, HWDSB

J15 Clean Ur Car!

Emily Egan
Junior 7/8 Life Sciences Non-Human
Sir William Osler, HWDSB

J16 Solving World Hunger and Minimizing Environmental Impacts

Hayden Clarke, Mason Maleschuk
Junior 7/8 Health Sciences Human
Sir William Osler, HWDSB

J17 Swish: The Science of Shooting Hoops

Dylan Patrick, Josh Spooner
Junior 7/8 Health Sciences Human
Sir William Osler, HWDSB

J18 Goldfish: Does Color Affect Age?

Brian Feng
Junior 7/8 Life Sciences Non-Human
Sir William Osler, HWDSB

J19 Breathe

Lucas Fowler
Junior 7/8 Health Sciences Human
Sir William Osler, HWDSB

J20 A Mathematical Model: The Effects of Changing an Astronomical Object's Size on Orbital Motion

Federico Cao
Senior 11/12 Phys & Math Sci
Westdale, HWDSB

J21 Is Diabetes Favoured by Natural Selection?

Andy Zhang, Daniel Liu
Senior 11/12 Health Sciences Human
Westdale, HWDSB

K01 Arching Ball Chain

Laura Stremble
Junior 7/8 Phys & Math Sci
St. Augustine, HWCD

K02 Silent Music: A Novel Approach to Anxiety Reduction Using Tactile Sound

Claire Hunter
Junior 7/8 Health Sciences Human
St. Augustine, HWCD

K03 The Impact of Cold Air on Breathing

Marcus Rilling, Evan Dalgetty
Junior 7/8 Health Sciences Human
St. Augustine, HWCD

K04 Does Chess Make You Smarter?

Natalie Murphy, Eli Daniels
Junior 7/8 Health Sciences Human
St. Augustine, HWCD

K05 A Salty Situation

Jessica Cotter
Junior 7/8 Earth & Env Sci
St. Augustine, HWCD

K06 Multitasking: Brain Drain Or Boost In Efficiency

Hannah Maione, Emma Marcolin
Junior 7/8 Health Sciences Human
St. Augustine, HWCD

K07 Does Smell Affect Memory?

Caitlin Jenkins
Junior 7/8 Health Sciences Human
St. Augustine, HWCD

K08 Musical Instruments and Math?

Kalya Gannage
Junior 7/8 Phys & Math Sci
St. Augustine, HWCD

K09 Don't Judge A Person By Their Cover

Katrina Webb
Junior 7/8 Health Sciences Human
St. Agnes, HWCD

K10 Does Classical Music affect Memory?

Matthew DiVittorio, Felicia DiVittorio
Junior 7/8 Health Sciences Human
St. Agnes, HWCD

K11 Is A Dam Worth It?

Nolan Babin
Junior 7/8 Earth & Env Sci
Sacred Heart of Jesus, HWCD

K12 Student Safety: Do we take it for granted?

Michelle Davies
Junior 7/8 Health Sciences Human
Regina Mundi, HWCD

K13 Green Energy From Brown Water

Aniello Lombardi, Ryan Hines
Junior 7/8 Earth & Env Sci
Regina Mundi, HWCD

K14 Are You Immune? A Study of the Frequency and Duration of URTI's

Claudia Pashkja
Junior 7/8 Health Sciences Human
Regina Mundi, HWCD

K15 Antacid Potency

Alexandra Fram
Junior 7/8 Life Sciences Non-Human
Regina Mundi, HWCD

K16 MUSICAL MINDS

Victoria Orfei, Alyssa Wereha
Junior 7/8 Health Sciences Human
Blessed Teresa, HWCD

PROJECT LISTING (Continued)

K17 Star Personality

Ava Magliaro
Junior 7/8 Health Sciences Human
Blessed Sacrament, HWCD

K18 The Big Picture on Myopia

Tomas Stojanovic
Junior 7/8 Health Sciences Human
Winona, HWDSB

K19 The Effects of Atmospheric CFC-11, CFC-12, CFC-113, CCl₄, and SF₆ on the Incident Rates of Lung and Bronchus Cancer

Moeyyad Qureshi, Tuneer Mondal
Senior 11/12 Health Sciences Human
Westmount, HWDSB

K20 Autism's Paw-fect Therapy

Deanna Allain
Intermediate 9/10 Health Sciences
Human
Westmount, HWDSB

K21 Acrylic or Ceramic?- Investigating the Properties of Calcium Phosphate Cements as Bone-Replacing Material

Samna Aziz
Senior 11/12 Eng & Comp Sci
Westmount, HWDSB

L01 Bacteria Hysteria

Dante Medeiros
Junior 7/8 Life Sciences Non-Human
St. Augustine, HWCD

L02 The Cheapest Killer

Michael Carter Tan
Junior 7/8 Health Sciences Human
St. Augustine, HWCD

L03 Is Physical Appearance Everything?

Jacquelyn Crichton, Tatum O'Connor
Junior 7/8 Phys & Math Sci
St. Augustine, HWCD

L04 Do Canines Have A Mental and Physical Effect on Humans

Kate Dolson, Holly Ott
Junior 7/8 Health Sciences Human
St. Augustine, HWCD

L05 EMF: TO BEAN OR NOT TO BEAN

Natasha Young, Emily Blondin
Junior 7/8 Earth & Env Sci
St. Augustine, HWCD

L06 What Stresses You?

Stella Oliver
Junior 7/8 Health Sciences
Human
St. Augustine, HWCD

L07 Crudely Corrosive: Comparing the Effect of Light and Heavy Crude Oils on Steel Pipeline Corrosion

Jessica Bohm
Junior 7/8 Phys & Math Sci
St. Augustine, HWCD

L08 Leaky Clues: How does Reservoir Height Affect Hydroelectricity Produced By A Dam

Katelyn Scime
Junior 7/8 Eng & Comp Sci
St. Bernadette, HWCD

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PROJECT LISTING (Continued)

L09 The Strength of A Magnet & How It Varies With Temperature

Sarah Middleton
Junior 7/8 Phys & Math Sci
St. Bernadette, HWCD

L10 Ultraviolet Radiation May Cause Cancer

Natalie Wilkinson
Junior 7/8 Health Sciences Human
St. David, HWCD

L11 Control Your Cholesterol

Kaitlyn Tran, Olivia Biancucci
Junior 7/8 Health Sciences Human
St. David, HWCD

L12 Pixels vs Ink

Olivia Gallant, Isabella Malatesta
Junior 7/8 Health Sciences Human
St. Eugene, HWCD

L13 Indoor plants, indeed a health booster

Rebecca Gill
Intermediate 9/10 Health Sciences Human
St. Jean de Brebeuf, HWCD

L14 Anger Management

Zachary Donovan, Sean Bergeron
Junior 7/8 Health Sciences Human
St. Joachim, HWCD

L15 Berry Fresh

Summer Slattery, Malaysia
Sandhu
Junior 7/8 Biotechnology
St. Joachim, HWCD

L16 The Pill That Will

Jenna Boyd
Junior 7/8 Health Sciences Human
St. Joachim, HWCD

L17 Appeeling Apples

Mark Rohac, John Tyler Luke
Junior 7/8 Earth & Env Sci
St. Joachim, HWCD

L18 Magnetic Linear Accelerator

Ryan Spadafora
Junior 7/8 Phys & Math Sci
St. Joachim, HWCD

L19 Glucose Levels

Shelby Loft
Junior 7/8 Health Sciences Human
St. Joachim, HWCD

L20 Telegraph

Trevor Stephenson
Junior 7/8 Eng & Comp Sci
St. Joachim, HWCD

L21 Eco-Friendly cleaners vs Non-Ecofriendly cleaners

Lauren Koch, Lauren Cappelli
Junior 7/8 Earth & Env Sci
St. Joachim, HWCD

M01 BIKE GENERATORS: On the road to a healthier future

Madeline Webb
Junior 7/8 Phys & Math Sci
St. Michael, HWCD

M02 The Proof is in the Plate

Matthew De Tullio
Junior 7/8 Health Sciences Human
St. Martin of Tours, HWCD

M03 Electrical Conductivity

Joseph Clinton
Junior 7/8 Phys & Math Sci
St. Marguerite d'Youville, HWCD

M04 Can Pigment Perfect Paint Help Us Be Green?

Anthony Hunt
Junior 7/8 Earth & Env Sci
St. Margaret Mary, HWCD

M05 Carbonated Explosion

Vincent Barzetti
Junior 7/8 Life Sciences Non-Human
St. Luke, HWCD



*Jane Michael
Chair of the Board*

*Paula Dawson
Director of Education*

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CONGRATULATIONS
To all BASEF2015 participants and

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**For your continued success in all
your endeavours!**

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challenges*

PROJECT LISTING (Continued)

M06 The Solar Oven

Myah Anderson, Natalia Feria-Tovar
Junior 7/8 Earth & Env Sci
St. Joseph, HWCD

M07 The Drying Solution

Abby MacDonald
Junior 7/8 Health Sciences Human
St. Joseph, HWCD

M08 Replacing Fibonacci?

Larissa Azzopardi
Junior 7/8 Life Sciences Non-Human
St. Joseph, HWCD

M09 Drinklamp

Aidan King
Junior 7/8 Eng & Comp Sci
St. Joseph, HWCD

M10 Smarter Than A Child-Proof Container

Jessica Dekker
Junior 7/8 Health Sciences Human
St. Joseph, HWCD

M11 Child Obesity

Alex Tran, Ethan Ramacieri
Junior 7/8 Health Sciences Human
St. Joseph, HWCD

M12 Yum bread

Bridget Flatt
Junior 7/8 Biotechnology
St. Joseph, HWCD

M13 Storms and Natural Disasters

Giovanni Pacini
Junior 7/8 Earth & Env Sci
St. Joseph, HWCD

M14 Double Dipping

Madeleine Madronich, Autumn Paul
Junior 7/8 Biotechnology
St. Joseph, HWCD

M15 I'VE FALLEN AND I CAN'T GET UP

Frank Rivas-Gonzalez
Junior 7/8 Health Sciences Human
St. John Paul II, HWCD

M16 Bridges and their Loads

Gabriel Acierto, Lachlan Malpass
Junior 7/8 Eng & Comp Sci
St. Joachim, HWCD

M17 A Magnetic Linear Accelerator

Adam McLean
Junior 7/8 Eng & Comp Sci
St. Joachim, HWCD

M18 Fun With Coil Guns

Paul Sarabura, George Pashkja
Junior 7/8 Phys & Math Sci
St. Joachim, HWCD

M19 Shrivelf Small or Sprout Tall

Samantha Fraser, Tessa Marras
Junior 7/8 Life Sciences Non-Human
St. Joachim, HWCD

M20 Lets Protect From the Liquid Effect

Matthew Wong
Junior 7/8 Health Sciences Human
St. Joachim, HWCD

M21 Shopping For Bacteria

Emily Shea
Junior 7/8 Life Sciences Non-Human
St. Joachim, HWCD

N01 Return of the Green Team

Hannah DeNardis, Chloe Ruggiero
Junior 7/8 Earth & Env Sci
St. Therese of Lisieux, HWCD

N02 Musical Concentration

Marissa Cino, Michaela Merla
Junior 7/8 Health Sciences Human
St. Therese of Lisieux, HWCD

N03 Down The Drain

Emily Voigt, Isabelle Farrel
Junior 7/8 Earth & Env Sci
St. Thomas the Apostle
(Waterdown), HWCD

N04 Why can a hot air balloon fly

Christopher Dias, Dante Campanella
Junior 7/8 Phys & Math Sci
St. Vincent de Paul, HWCD

N05 Identifying Compounds for Modulating N17 Phosphorylation of Huntingtin via High Content Screening

Samuel Han
Senior 11/12 Health Sciences Human
Abbey Park High School, HDSB

N06 Using Copper's Natural Properties to Prevent Microbial Contamination of Computer Keyboards

Nart Barileva
Senior 11/12 Eng & Comp Sci
Abbey Park High School, HDSB

N07 Death by Plastic Dust, No More

William Kim, Quin Millard
Senior 11/12 Earth & Env Sci
Abbey Park High School, HDSB

N08 Fertilizers Affecting Algae Growth

Anissa Gandhi, Howard Chang
Junior 7/8 Earth & Env Sci
Escarment View Public School, HDSB

N09 Does text and background colour affect retention

Joanne Jackson
Junior 7/8 Health Sciences Human
Escarment View Public School, HDSB

N10 Pareidolia: The Phenomenon Of Seeing Things That Are Not Really There

Rabbea Sidhu
Junior 7/8 Health Sciences Human
Escarment View Public School, HDSB

N11 How Does Colour Affect Our Food Choices?

Esha Mahmood, Tanya Nantsa
Junior 7/8 Health Sciences Human
Escarment View Public School, HDSB

N12 Stress

Alexa Nantsa
Junior 7/8 Health Sciences Human
Escarment View Public School, HDSB

N13 Death From Above

Simon Vanegas, Usama Jahan
Junior 7/8 Earth & Env Sci
Escarment View Public School, HDSB

PROJECT LISTING (Continued)

N14 The Invisible Air Force- Is it really possible?

Muhammad Mahsam, Rabi Syed
Junior 7/8 Eng & Comp Sci
Escarpment View Public School,
HDSB

N15 The sugar coating Method

Tife Ademidun, Kayla Cameron
Junior 7/8 Phys & Math Sci
Escarpment View Public School,
HDSB

N16 What is the most flammable material

Hamza Aziz
Junior 7/8 Health Sciences Human
Escarpment View Public School,
HDSB

N17 The Electrolysis of Water

Jay Mehta
Junior 7/8 Earth & Env Sci
Escarpment View Public School,
HDSB

N18 What does Your Appearance Say?

Jaskeen Sagotra, Maryam
Mohammed
Junior 7/8 Phys & Math Sci
Escarpment View Public School,
HDSB

N19 Hydraulic Arm

Xander Conway
Junior 7/8 Phys & Math Sci
Forest Trail Public School, HDSB

N20 Water as a combustible fuel

Alexander Da Re
Junior 7/8 Phys & Math Sci
Forest Trail Public School, HDSB

N21 Mussa teeth whitening

Teagan Baldwin
Junior 7/8 Health Sciences Human
John William Boich, HDSB

P01 Thermoelectric Gloves

Sebastian Winslow, Nicholas
Winslow
Junior 7/8 Eng & Comp Sci
Maple Grove Public School, HDSB

P02 Hidden sugars

Theadora Pope
Junior 7/8 Health Sciences Human
Maple Grove Public School, HDSB

P03 Typoglycemia

Willow Bennett, Lauren Chan
Junior 7/8 Health Sciences Human
Maple Grove Public School, HDSB

P04 Colour vs. Comprehension

Sofia Dell
Junior 7/8 Health Sciences Human
Maple Grove Public School, HDSB

P05 The Cheerio Effect

Cailin Mitchell, Evelyn Rothgerber
Junior 7/8 Phys & Math Sci
Maple Grove Public School, HDSB

P06 How Colour Affects Academic Performance

Lexi Maharaj, Isobel Woodiwiss
Junior 7/8 Health Sciences Human
Maple Grove Public School, HDSB

P07 Orange Juice = 100% Vitamin C?

Amanda He, Cynthia Chen
Junior 7/8 Biotechnology
Maple Grove Public School, HDSB

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Email: economicdevelopment@hamilton.ca

PROJECT LISTING (Continued)

P08 Taste And Trickery

Ethan Smith
Junior 7/8 Health Sciences Human
Maple Grove Public School, HDSB

P09 Does H2O Affect Your Performance

Matthew Saunders, Christopher Merrick
Junior 7/8 Health Sciences Human
Maple Grove Public School, HDSB

P10 Wireless Electricity

Nikola Paravinja
Junior 7/8 Eng & Comp Sci
John William Boich, HDSB

P11 The Touchless Tub

Brady McBride, Jeremy Tica
Junior 7/8 Eng & Comp Sci
John William Boich, HDSB

P12 The Caffeine Affect

Milla Tesic, Rachel Wettlaufer
Junior 7/8 Health Sciences Human
John William Boich, HDSB

P13 The Rulazer

Rachael Sommerville, Kyla McNally
Junior 7/8 Eng & Comp Sci
John William Boich, HDSB

P14 The Effects of Synesthesia

Jenna Sinclair, Rachel Hogan
Junior 7/8 Health Sciences Human
John William Boich, HDSB

P15 The Drowning Detector

Alessia Huma, Emily Peetsma
Junior 7/8 Eng & Comp Sci
John William Boich, HDSB

P16 Homemade BioFuel

Abbey Kunzli
Junior 7/8 Earth & Env Sci
John William Boich, HDSB

P17 The Phone Shield

Samantha Main, Ainslie Law
Junior 7/8 Eng & Comp Sci
John William Boich, HDSB

P18 How Students React To Paradoxes

Ahmed Aiaydeh, Taranjit Saini
Junior 7/8 Health Sciences Human
John William Boich, HDSB

P19 Canadian Citizenship Investigating the CRTc's regulations

Sierra Jess
Junior 7/8 Health Sciences Human
John William Boich, HDSB

P20 Cool Blue May Give Us A Clue; The Impact of Soda

Olivia McIsaac, Miranda Stanbury
Junior 7/8 Health Sciences Human
John William Boich, HDSB

P21 ECMS (emergency calcification monitoring system)

Ameera Sheikh, Madison Langley
Junior 7/8 Eng & Comp Sci
John William Boich, HDSB

Q01 LD Wheelchair Master 1.2

Lauren Sparling, Dillen Oliver
Junior 7/8 Eng & Comp Sci
Maple Grove Public School, HDSB

Q02 The Oil Eater

Brooke Westwater, Ainsley Morrison
Junior 7/8 Eng & Comp Sci
Maple Grove Public School, HDSB

Q03 Snow Tires Vs. Four Season Tires

Noah Westwater
Junior 7/8 Phys & Math Sci
Maple Grove Public School, HDSB

Q04 A Frozen Project

Antoine Vilain, Ethan Kuyper
Junior 7/8 Phys & Math Sci
Maple Grove Public School, HDSB

Q05 Memory Dash

Sophie Barbato, Elizabeth Raynor
Junior 7/8 Health Sciences Human
Rolling Meadows Public School,
HDSB

Q06 Exposition of Mathematical Probabilities in Philosophical Science

Omar Hadi
Junior 7/8 Phys & Math Sci
Sir Ernest Macmillan Public School,
HDSB

Q07 The World in the Perspective of a Synesthete

Gurleen Brar, Leena Mahmood
Junior 7/8 Health Sciences Human
Sir Ernest Macmillan Public School,
HDSB

Q08 Changing the colour of Fire

Slader Moon
Junior 7/8 Phys & Math Sci
Sunningdale Public School, HDSB

Q09 The Future Of Thorium

Eric Génier, Jack McBain
Junior 7/8 Phys & Math Sci
Sunningdale Public School, HDSB

Q10 Mood, environment and percetion

Mina Sehri, Kendra Hill
Junior 7/8 Health Sciences Human
W. H. Morden Public School, HDSB

Q11 Music, Friend or Foe?

Brendan Wimsatt
Junior 7/8 Health Sciences Human
W. H. Morden Public School, HDSB

Q12 I 'Suggest' You Look Closely

Onjoli Krywiak
Junior 7/8 Health Sciences Human
W. H. Morden Public School, HDSB

Q13 'Wi' Worry?

Sam Hollinrake
Junior 7/8 Life Sciences Non-Human
W. H. Morden Public School, HDSB

Q14 Avenging the Primula Plants

Davis Rutledge, Thomas Breckon
Junior 7/8 Earth & Env Sci
W. H. Morden Public School, HDSB

Q15 Are Adults or Children More Affected by the Power of Suggestion

Kaitlin Vickramasinghe, Eleni Piliouras
Junior 7/8 Health Sciences Human
W. H. Morden Public School, HDSB

Q16 Fishy Colors, How Betta Fish React to Different Environments

Andrei Adam
Junior 7/8 Life Sciences Non-Human
W. H. Morden Public School, HDSB

PROJECT LISTING (Continued)

Q17 Eyes Don't Lie...Or Do They?

Shivaani Iyer
Junior 7/8 Health
Sciences Human
W. H. Morden Public
School, HDSB

Q18 Can You Taste The Difference

Billy Piliouras, Grant
Zadorozny
Junior 7/8 Health
Sciences Human
W. H. Morden Public
School, HDSB

Q19 War of the Roses

Ellie Gough
Junior 7/8 Earth & Env
Sci
W. H. Morden Public
School, HDSB

Q20 Spray Paint On Your House!

Urmi Sheth
Junior 7/8 Earth & Env
Sci
W. H. Morden Public
School, HDSB

Q21 Look... A Squirrel!

Gareth Mann
Junior 7/8 Health
Sciences Human
W. H. Morden Public
School, HDSB

R01 Now you see it, Now you don't

Naomi McPherson
Junior 7/8 Health
Sciences Human
Caledonia Centennial
Public, GEDSB

R02 Do cells make noise???

Lakshmi Rajkumar
Intermediate 9/10
Health Sciences Human
Assumption College
School, BHNCD

R03 Effects of triclosan on microorganisms

Erik Sauer
Senior 11/12 Earth & Env Sci
École secondaire Georges-P.-
Vanier, CSV

R04 Age is but a number...or is it?

Yash Bhamare, Noah Kunej
Senior 11/12 Life Sciences Non-
Human
North Park Collegiate and
Vocational School, GEDSB

R05 Wave Blockers

Chelsea Warner, Nicole Brown
Junior 7/8 Eng & Comp Sci
Fairview Avenue Public School,
GEDSB

R06 The True Cost To Society: Organic V.S. Non Organic

Noah Wirasinghe, Rachel Bruce
Junior 7/8 Biotechnology
St. Bernadette, HCDSB

R07 Gluten Vs. Gluten Free... Which Is Better?

Karen Hopkins, Kayla Corry
Junior 7/8 Health Sciences Human
St. Bernadette, HCDSB

R08 Personality Differences Between Dog People and Cat People

Silvia Guerrero, Valeria Baldeon
Junior 7/8 Health Sciences Human
St. Bernadette, HCDSB

R09 The Dissapearing Egg Shell

Laura Taraso, Vanessa Scarcelli
Junior 7/8 Life Sciences Non-
Human
St. Bernadette, HCDSB

R10 How much sugar is in the foods we eat

Kendra Meikle, Trinidad Baigorria
Junior 7/8 Health Sciences Human
St. Bernadette, HCDSB



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rallies
Team Canada
at ISEF 2014

R11 The Teenage Brain

Rianna Furtado, Sophia Lavalle
Junior 7/8 Health Sciences Human
St. Bernadette, HCDSB

R12 Different particles found in water

Charlotte Toste, Emily Laing
Junior 7/8 Earth & Env Sci
St. Bernadette, HCDSB

R13 Riding on Air

Adrian Novakov, Felipe Moreno
Junior 7/8 Eng & Comp Sci
St. Bernadette, HCDSB

R14 Coffee, Tea and Sodas That Stain Teeth

Meagan Fernandes
Junior 7/8 Health Sciences Human
St. Bernadette, HCDSB

R15 Harnessing Clean Energy

Alexandra Rudic, Mia Eisenkoelbl
Junior 7/8 Earth & Env Sci
St. Bernadette, HCDSB

R16 Under Water Volcano

Zahir Anderson
Junior 7/8 Earth & Env Sci
St. Bernadette, HCDSB

R17 External Heat transfer for Refrigerator Units to Improve Energy Efficiency and Reduce Costs in the Home

Cecelia Dietrich
Junior 7/8 Eng & Comp Sci
St. Andrew, HCDSB

R18 Glycoprotein Inhibitors to Fight HIV

Andy Xie
Intermediate 9/10 Biotechnology
White Oaks School, HDSB

PROJECT LISTING (Continued)

R19 Negative

Temperatures - Positive Power: An Application of the Seebeck Effect to Combat Residential Heat Loss

Abirami Sudharshan
Intermediate 9/10 Eng & Comp Sci
White Oaks School, HDSB

R20 Coiled Attraction

Maya Senthilkumaran
Junior 7/8 Eng & Comp Sci
W. H. Morden Public School, HDSB

R21 Morden Marshmallow Test

Ria Gambhir, Zachary Harding
Junior 7/8 Health Sciences Human
W. H. Morden Public School, HDSB

S01 Microwave Assisted Extraction of Polyphenols from Cocoa Powder

Aaron Gomes
Senior 11/12 Health Sciences Human
King's Christian Collegiate, IND

S02 Appoholics

Ben Korol
Junior 7/8 Health Sciences Human
Trinity Christian School, IND

S03 Egg Incubator

Molly O'sullivan, Jade Wicklund
Junior 7/8 Biotechnology
Guy B. Brown, HWDSB

S04 Are we eating our lunch or is our lunch eating us?

Tabassum Bakht, Shadia Nargis
Junior 7/8 Health Sciences Human
Hess Street, HWDSB

S05 Drug Solubility: How the delivery method of a drug changes how long it takes to get to the bloodstream

Habeba Ahmed
Junior 7/8 Health Sciences Human
Hess Street, HWDSB

S06 Musical Stairs

Amelia Silliker, Kendall Falconer
Junior 7/8 Health Sciences Human
Norwood Park, HWDSB

S07 Hand-Crank Powered Wheelchair

Ewen Cameron
Junior 7/8 Eng & Comp Sci
Spencer Valley, HWDSB

S08 Membrane-Based Medicine: Quantifying Cortisone Interactions through X-Ray Diffraction

Adree Khondker
Senior 11/12 Health Sciences Human
Westdale, HWDSB

S09 Investigating the variability of the non-thermal degradation of polystyrene in response to saturated forms of magnesium

Yajur Iyengar, Taehyoan (David) Won
Senior 11/12 Earth & Env Sci
Westdale, HWDSB

S10 Optimization and Construction of a 3D Printer

Colin Daly
Senior 11/12 Eng & Comp Sci
Cathedral, HWCD

S11 An Oxy-Hydrogen Powered Aircraft

Seth Stefanchuk, Marshall Stefanchuk
Junior 7/8 Phys & Math Sci
St. Bernadette, HWCD

S12 Smoking and Cancer: The Genetic Link

Luca Ramelli
Junior 7/8 Health Sciences Human
St. David, HWCD

S13 Solar Panels

Jacob Madalena, Josh Brooks
Junior 7/8 Eng & Comp Sci
St. Joachim, HWCD

S14 Suck It Up Buttercup: The Power Of Syphoning

David Boccalon
Junior 7/8 Phys & Math Sci
St. Luke, HWCD

S15 Bacteria on a Toilet Seat vs.Coins

Steven Kottaras, Michael Iantomasi
Junior 7/8 Life Sciences Non-Human
St. Marguerite d'Youville, HWCD

S16 The Pharmacological Potential of Apigenin and Diosmetin as a Novel Treatment for Chronic Lymphedema

Catharine Bowman
Senior 11/12 Health Sciences Human
St. Mary, HWCD

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Supreme Ruler 2010

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PROJECT LISTING (Continued)

S17 Signal Shirt

Jason Clapiz
Junior 7/8 Eng & Comp Sci
St. Michael, HWCD

S18 Our Signing Relative

Sarah Brown, Tuba Khan
Junior 7/8 Life Sciences Non-Human
Escarpment View Public School, HDSB

S19 The Green Bin Of The Future

Zainab Raja, Beulah Osoba
Junior 7/8 Eng & Comp Sci
Escarpment View Public School, HDSB

S20 LED VS Incandescent! Which Is More Intense?

Rayven Winters, Eliza Gilani
Junior 7/8 Phys & Math Sci
Escarpment View Public School, HDSB

S21 Plants & Pollutants

Zia Baig, Steven Hua
Junior 7/8 Earth & Env Sci
Escarpment View Public School, HDSB

S22 The Scoop on Stroop

Henry Greenberg
Junior 7/8 Health Sciences Human
Forest Trail Public School, HDSB

S23 Moving Objects with Bernoulli's Principle

Darren Sun
Junior 7/8 Phys & Math Sci
Forest Trail Public School, HDSB

S24 Stranger Danger; Teaching Kids not to Trust Strangers

Juan Klahr, Murdoch Irwin
Junior 7/8 Eng & Comp Sci
John William Boich, HDSB

S25 A Learning App For Kids

Eric Xu, James Donnelly-Lowe
Junior 7/8 Eng & Comp Sci
John William Boich, HDSB

T01 Complex Harmonic Motion as a Means for Pseudorandom Number Generation

Joel Ruhland
Senior 11/12 Eng & Comp Sci
North Park Collegiate and Vocational School, GEDSB

T02 The Push and Drink

Jackson Buggeln, Will Radix
Junior 7/8 Eng & Comp Sci
Caledonia Centennial Public School, GEDSB

T03 Is technology good or bad

Cyprien Petiteville, David Zanguna
Junior 7/8 Eng & Comp Sci
St. Bernadette, HCDSB

T04 How Powerful is Air?

Aaron Spence, Matthew Spence
Junior 7/8 Phys & Math Sci
St. Bernadette, HCDSB

T05 What Materials Block A Wifi Signal?

James Ryan
Junior 7/8 Eng & Comp Sci
St. Bernadette, HCDSB

T06 Nasty burgers

Emily DiDanieli, Laura Johnson
Junior 7/8 Health Sciences Human
St. Bernadette, HCDSB

T07 EMMA:

ElectroMyographically Manipulated Arm - The Future of Prosthetics

Katie Brent
Senior 11/12 Eng & Comp Sci
Notre Dame, HCDSB

T08 A Novel Investigation In Reducing Tanker Car Incident / Accident Using Engineered Technologies

Jack Mogus
Intermediate 9/10 Eng & Comp Sci
White Oaks School, HDSB

T09 Quantifying and comparing the effects of islet transplantation, mesenchymal, embryonic and induced pluripotent stem cell

Afif Bhimani, Randi Mao
Senior 11/12 Health Sciences Human
White Oaks School, HDSB

T11 Fibre Reinforced Concrete (FRC), The Future of Structural Engineering

Hosam Sennah
Senior 11/12 Eng & Comp Sci
White Oaks School, HDSB

T12 How can robotics improve prosthetics?

Ayush Sahi, Aidan Lehal
Junior 7/8 Health Sciences Human
W. H. Morden Public School, HDSB

T13 What Liquids Are Staining Your Teeth?

Carson Heinzl
Junior 7/8 Health Sciences Human
W. H. Morden Public School, HDSB

T14 Galactic Gold Rush

Devaun Dhillon, Jared Denys-Varghese
Junior 7/8 Phys & Math Sci
Sunningdale Public School, HDSB

T15 3D printing: the future of biomedical engineering

Ryan Spence
Junior 7/8 Health Sciences Human
Sunningdale Public School, HDSB

T16 Turn it Off?

Ramindu Gunasekara, Sam Bisutti
Junior 7/8 Health Sciences Human
Sir Ernest Macmillan Public School, HDSB

T17 Technology: Erasing Our Humanity?

Linna Luo, Hayley Naylor
Junior 7/8 Health Sciences Human
Sir Ernest Macmillan Public School, HDSB

T18 The Correlation of Coronal Mass Ejections with the Solar Sunspot Cycle

Abdullah Hadi, Wilson Becke
Junior 7/8 Phys & Math Sci
Sir Ernest Macmillan Public School, HDSB

T19 How to shoot the perfect basketball shot?

Amritpal Kallah, Sam Tchnerer
Junior 7/8 Phys & Math Sci
Sir Ernest Macmillan Public School, HDSB

PROJECT LISTING (Continued)

T20 EyeLight: Leading Enlightened Drivers

Monica Mahut
Junior 7/8 Eng & Comp Sci
Rolling Meadows Public School,
HDSB

T21 Walking In Circles

Charlie Finerty, Jack Peros
Junior 7/8 Health Sciences Human
Maple Grove Public School, HDSB

T22 uFind

Maxwell Boulanger, Riley
Crawford
Junior 7/8 Eng & Comp Sci
Maple Grove Public School, HDSB

T23 How Does Weather Affect Your Mood?

Amelia Orzechowski, Hiva Askari
Junior 7/8 Health Sciences
Human
Maple Grove Public School, HDSB

T24 Taking the Flyway

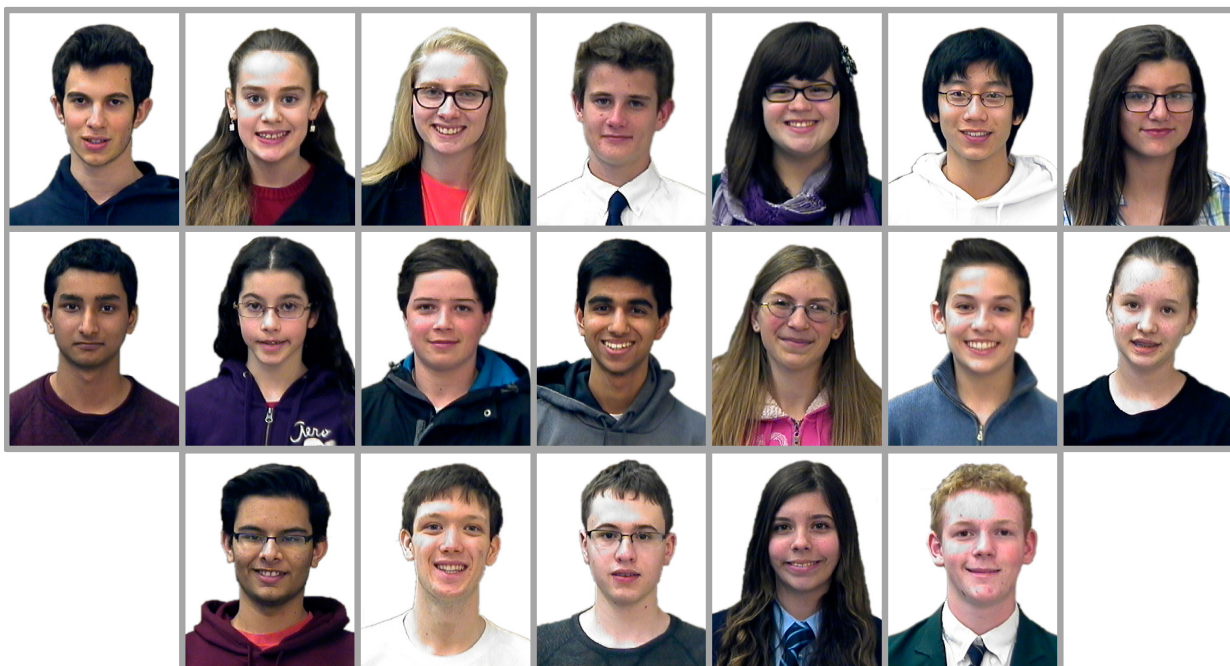
Caroline Mahut
Intermediate 9/10 Eng & Comp Sci
M. M. Robinson High School, HDSB

T25 The Water Saver

Sneha Rakulann, Hailey Gould
Junior 7/8 Eng & Comp Sci
John William Boich, HDSB



Thanks to our sponsors we're going places!
**National & International
Science Fair Competitors**



**The BASEF Students and Volunteers gratefully
acknowledge the support of all of our sponsors**

SPECIAL AWARDS – 2014

Special Awards are given by organizations and groups to recognize deserving projects that deal with topics of interest to the donor.



ArcelorMittal Dofasco Awards

Chemical Testing Award

Prize: \$100

Criteria: Use of chemical testing and/or chemical principles to solve a technical problem

Commercial Department Award

Prize: \$100

Criteria: Commercial and business planning tools in developing a potentially new or improved commercial product.

Engineering & Maintenance Technology Award

Prize: \$100

Criteria: Engineering & Maintenance Technology principles and design to solve a technical problem.

Environmental Award

Prize: \$100

Criteria: Physics, chemistry, or engineering to explore or solve a technical problem associated with environmental issues.

Hot Mill Award

Prize: \$100

Criteria: Creative principles and design to solve a manufacturing or process problem.

Human Resources Training and Development

Prize: \$100

Criteria: Teaching and training techniques in explaining or exploring a technical problem.

Information Systems Award

Prize: \$100

Criteria: Information Systems and design to solve a technical problem.

Ironmaking Award

Prize: \$100

Criteria: Project that best displays the use of Metallurgical or Material Science principles to solve a technical problem.

Material Handling & Logistics Department Award

Prize: \$100

Criteria: Project that best displays the use of scientific principles in exploring or solving a problem related to material conveyance, transportation or logistics.

Medical Department Award

Prize: \$100

Criteria: Scientific principles in exploring or solving a problem related to human health issues.

Process Automation Award

Prize: \$100

Criteria: Project best displaying the use of Process Automation principles and design to solve a technical problem.

Product Development Business Process Award

Prize: \$100

Criteria: Product Development principles and design in developing a new consumer product with commercial potential.

Product Research & Automotive Applications Award

Prize: \$100

Criteria: Project that best displays the innovative application of materials, products, processes or design principles.

Quality Systems Award

Prize: \$100

Criteria: Quality Systems principles and design to solve a technical problem.

SPECIAL AWARDS (Continued)

ArcelorMittal Dofasco Awards (continued)

Research and Development Award

Prize: \$100

Criteria: Project that best displays investigative research & scientific principles to explore or solve a technical problem.

Steelmaking Award

Prize: \$100

Criteria: Engineering and Materials Science principles to solve a technical problem.

Artistically Inspired Display Awards

Prize: Two cash awards of \$50 each

Criteria: To the most artistically inspired display

Association for Iron & Steel Technology Northern Chapter Awards

Prize: Two cash awards of \$100 each

Criteria: For outstanding projects related to one of the following fields: metallurgy, materials science, chemical, electrical, mechanical, industrial, environmental, civil and computer engineering.

Canadian Institute of Mining, Metallurgy and Petroleum (Hamilton Branch) Awards

Prize: Two cash awards of \$100 each

Criteria: Outstanding projects related to mining, metallurgy, and petroleum, any level

Canadian Nuclear Society (Golden Horseshoe Branch) Awards

Prize: Two cash awards at the intermediate or senior levels for \$125 each and two at the junior level for \$75 each.

Criteria: Projects relating to nuclear science and engineering, energy research or climate sciences



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Best Wishes to all BASEF 2015 Participants



Proudly outfitting TEAM BASEF at the
Canada Wide Science Fair and the Intel International Science & Engineering Fair

SPECIAL AWARDS (Continued)



Cancer Assistance Program Awards

Prize: Two cash awards of \$100 each

Criteria: Outstanding projects on topics related to cancer prevention.

Chemical Institute of Canada, Hamilton Section Awards

Prize: Three cash awards of \$100 each

Criteria: Projects relating to chemistry, chemical engineering and chemical technology

Conservation Halton Awards

Prize: Two cash awards of \$100 each

Criteria: Top two science projects that contribute to environmental research, protection, conservation, restoration or awareness by Halton students.

Dillon Consulting Limited Awards

Science and Engineering Award

Prize: \$250

Criteria: Project showing excellence in Science and/or Engineering

Biological Sciences Award

Prize: \$250

Criteria: Project showing excellence in Biological Science

Doris Casey Disability Solutions Award

Prize: \$100

Criteria: Most innovative and creative technical solution focused on assisting individuals to overcome or compensate for physical or cognitive disabilities

Dr. Laura Blew Social Sciences Awards

Prize: Two prizes of \$50 each

Criteria: Best 2 Social Science based projects

Dr. Colin J.L. Lock Memorial Chemistry Award

Prize: \$100

Criteria: The project demonstrating the best application of chemistry

Dr. M. Doyle Award

Prize: A \$200 cash award, a plaque, and a trophy for the winner's school

Criteria: Best Biology Project

Dr. Nicola Simmons Award in Cognition Studies

Prize: \$100

Criteria: An exemplary project in cognition studies

Electrical Construction Association of Hamilton Awards

Prize: Two awards of \$250 each

Criteria: Projects displaying the best and safest use of electricity in the most creative manner.

Environment Hamilton Award

Prize: \$55

Criteria: Most creative, ambitious, or well thought-out project that addresses environmental issues impacting the Greater Hamilton region.

Farncombe Family Digestive Health Research Awards

Prize: Two awards of \$250 each

Criteria: Projects that explore digestive health, related diseases or general family nutrition through experimentation or in depth literature.

SPECIAL AWARDS (Continued)



Gowlings Innovation Award

Prize: \$250

Criteria: Best project exploiting multiple areas of intellectual property protection, namely trademarks, patents, industrial design and copyright. The prize includes a complimentary consultation with a patent or trademark agent at the Gowlings Hamilton office.

Hamilton Academy of Dentistry Awards

Prize: Two awards of \$100 each

Criteria: Projects related to dentistry in general; to one specific area of dentistry; or related to oral hard & soft tissues specifically; to some aspect of the delivery of dentistry to the general (or specific) population; or an aspect related to prevention of dental disease

Hamilton Amateur Astronomers Award honouring James A. Winger

Prize: \$200

Criteria: Best project in demonstrating an understanding of a topic related to astronomy or physics.

Hamilton Association for the Advancement of Literature, Science & the Arts da Vinci Award

Prize: \$250

Criteria: The candidate who best combines personal initiative with the scientific method.

Hamilton Chamber of Commerce Innovation Awards

Prize: 1st \$250, 2nd \$150, 3rd \$100

Criteria: Awarded to the most deserving projects with potential commercial applications for students from Hamilton focused on improving our local environment, communities or quality of life.



Isabella O'Brien from St. Augustine Catholic Elementary School has been selected by Youth Science Canada to be the Team Canada delegate at the Broadcom MASTERS International to be held in May 2015 in Pittsburgh. One middle school science fair project from each of 13 countries is selected to participate in this program based on excellence in science, technology, engineering and math (STEM) and leadership potential. <https://student.societyforscience.org/broadcom-masters-international>

Delegates win an all-expense paid trip to participate in the Broadcom MASTERS International program. In addition they are official observers at the Intel International Science and Engineering Fair (ISEF), the largest high school science fair competition in the world, which is happening in Pittsburgh at the same time.

Isabella will be presenting her project "Trouble in Paradise: Can shell recycling buffer the effects of Ocean Acidification?" The project responds to the serious problem of high CO₂ levels reducing pH levels in the ocean, which threatens the viability of corals and shelled sea life. Isabella wondered if waste from the seafood industry such as mussel, oyster and clam shells could be recycled back into the ocean to boost pH levels and reduce the deterioration in shell mass and coral decay. Her experiments on mollusk shells demonstrated that using recycled shell waste in powdered form did boost pH levels and also decreased the rate of shell degradation, thus mitigating the effects of ocean acidification.

In 2014, Isabella presented her project at the St. Augustine science fair, then the Hamilton Wentworth Catholic District School Board fair and finally the Bay Area Science and Engineering Fair (BASEF) where she was selected to represent BASEF, along with 15 other students at the Canada Wide Science Fair. She won a gold medal and the Junior Environmental challenge award at the Canada-Wide Science Fair in May 2014.

SPECIAL AWARDS (Continued)



Hamilton Wentworth Occasional Teacher Local Awards

Environment and Education Award

Prize: \$50

Criteria: Junior project which most effectively educates others about an environmental issue.

Healthy Lifestyles Award

Prize: \$50

Criteria: Junior project which most effectively educates others regarding the role of nutrition and/or exercise in maintaining a healthy lifestyle.

Presentation and Aesthetics Award

Prize: \$50

Criteria: Junior project which demonstrates a high level of visual appeal, creativity, and overall quality of presentation.



Katie Brent, 16, of Oakville is a grade 11 student at Notre Dame Catholic Secondary School in Burlington, and has followed her passion for science at the Fair since 2011.

Last year, Katie's computer science and engineering-focused project, "*Telemetric Vest: Wearable Computing for Patient Welfare*", garnered six Special Awards in addition to a Gold Merit Award and a place on Team BASEF. Her project featured the application of wearable computing to medical and long-term care environments.

Last May she travelled to Windsor to compete at the Canada Wide Science Fair. At the national level, she was the recipient of a Bronze Merit medal and a scholarship to the University of Western Ontario. She also was one of three students chosen to represent Canada at the National Youth Science Forum (NYSF), which is held annually at the Australian National University in Canberra.

The NYSF is an intensive two-week science, technology and engineering oriented program for both Australian and international students interested in pursuing a career in the industry. The program is a prestigious one, receiving over 1 200 applicants annually, and accepting 250. International students hail from Canada, New Zealand, Germany, Brazil, Fiji, and South Africa.

The NYSF encourages excellence and the development of communication and interpersonal skills for students pursuing careers in Science, Engineering and Technology. It also emphasizes the importance of maintaining an active interest in athletics and the arts, and fosters discussion and interest in national and global issues.

Katie attended the Forum in January. She was a member of the chemistry focused interest group, "Curie", and participated in lab visits, lectures, and debates. Highlights included a mock senate inquiry and attending the question period at the Australian Parliament House, and video conferencing with a scientist from The European Organization for Nuclear Research (CERN). They also visited NASA's Canberra Deep Space Communication Complex.

Katie hopes that BASEF will continue to grow and attract scientific-minded students so that they might have the same life-changing opportunities she has had.

SPECIAL AWARDS (Continued)



Hillfield Strathallan College Awards of Excellence

Biological Sciences

Prize: \$100

Criteria: Intermediate project that best displays excellence in sampling design in a biological science project.

Environmental Sciences

Prize: \$100

Criteria: Junior or intermediate project that best displays innovation in identifying an environmental problem.

Design and Engineering

Prize: \$100

Criteria: Senior level project that best displays innovation in identifying an ergonomic design problem.

Horizon Utilities Corporation Awards

Prize: Three awards of \$300 each

Criteria: Projects that best demonstrate the production of electrical energy from "green sources", or new, viable approaches to using electrical energy more efficiently.

Indigenous Peoples of Canada Scientific Study Awards

Prize: 1st: \$140; 2nd \$80; 3rd \$80

Criteria: For the application of established scientific methods to topics relevant to the culture, heritage or issues of the indigenous peoples of Canada.

IEEE (Institute of Electrical and Electronic Engineers) Hamilton Section Award

Prize: \$100

Criteria: Best use of electronics in a science or engineering project, any level

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SPECIAL AWARDS (Continued)



International Science & Engineering Affiliated Fair Awards for regional science fairs affiliated with the Intel International Science & Engineering Fair

Prize: certificates

Criteria: deserving **intermediate and senior** projects related to topics of interest to the following organizations:

American Meteorological Society

Creative scientific endeavour in the areas of atmospheric and related oceanic and hydrologic sciences

American Psychological Association

Outstanding research in psychological science in the category of behavioural and social sciences.

ASM Materials Education Foundation

Project demonstrating either the use of materials related concepts or a demonstration of some aspect of the materials paradigm.

Association for Women Geoscientists

Project done by a female exemplifying a high standard of innovativeness and scientific excellence in the geosciences

ASU Walton Sustainability Solutions Initiative

Project which seeks innovative solutions to society's most challenging problems, and conveys intent to solve a complex problem that involves social justice, environmental and economic prosperity.

Intel Excellence in Computer Science

Additional Award: \$200USD

Top winner in Computer Science category

MU Alpha Theta

Most challenging, original, thorough and creative investigation of a problem involving mathematics

Ricoh Americas Corporation

Project that addresses issues of environmental responsibility with sustainable development. The project must include know-how, procedures, goods and/or services, equipment and organizational/managerial process. The project must also protect the environment and conserve resources, prevent pollution and use all resources in a more sustainable manner.

Society for Invitro Biology

Grade 11 project exhibiting in the areas of plant or animal in vitro biology or tissue culture

Yale Science & Engineering Association

Most outstanding Grade 11 project in Computer Science, Engineering, Physics or Chemistry.

John W. Howard Materials Research Award

Prize: \$100

Criteria: A project demonstrating innovation in engineering materials, especially concrete.



BASEF Alumnus, Ben Gulak, recipient of the first annual CWSF Alumni Award. 2013

SPECIAL AWARDS (Continued)

Laurentian Chapter of SETAC Award

Prize: \$200

Criteria: Best project and presentation on a topic related to environmental toxicology, chemistry, pollution, contamination, remediation or environmental protection.

McMaster University LEAP Award of Innovation

Prize: Registration to the 2015 LEAP Summer Program valued at \$650

Criteria: Intermediate or Senior project by a female participant that demonstrates creativity and originality.

McMaster University Venture Engineering Science Award of Innovation

Prize: Registration to the Engineering & Science Stream of the 2015 Venture Camp valued at \$230

Criteria: Junior project that demonstrates creativity and originality.

McMaster University Department of Chemistry and Chemical Biology Award

Prize: \$100

Criteria: An outstanding senior or intermediate project connected to chemistry or chemical biology



Congratulations to all Science Fair participants!

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SPECIAL AWARDS (Continued)

McMaster University Engineering Society Awards

Prize: Two awards of \$200 each

Criteria: Best Engineering Projects, one junior and one at any level, demonstrating excellent understanding of engineering and its applications

Mechanical Contractors Association of Hamilton Award

Prize: \$250

Criteria: Best intermediate or senior engineering project.

M.G.DeGroote Institute for Infectious Disease Research Internship Awards

Prize: A 6-week paid summer internship as a research assistant in a laboratory at the M.G. DeGroote IIDR at McMaster University, valued at \$2,000. Two runner-ups will be identified and given a certificate.

Criteria: Best senior student project in infectious disease, drug discovery or human health.

Mohawk College Building & Construction Sciences Awards

Civil Engineering

Prize: \$50

Criteria: Project related to the field of Civil Engineering

Transportation

Prize: \$50

Criteria: Project related to planning, design, or operation of any transportation mode or facility

Building Sciences

Prize: \$50

Criteria: Project related to building sciences, building materials, or energy conservation in structures

Mohawk College Computer Science & Information Technology Computer Excellence Award

Prize: \$50

Criteria: A project which demonstrates a thorough understanding of computer application and design in today's world.

Mohawk College Electrotechnology Department Engineering Technology Awards

Prize: Two awards of \$50 each

Criteria: Deserving projects in engineering studies, one at the junior level and one at the intermediate level.

Mohawk College Mathematics Awards

Prize: Two awards of \$50 each

Criteria: Deserving projects in the category of mathematics or statistics, one at the junior level and one at the senior level.

Nelson Steel Awards

Prize: Two awards of \$50 each

Criteria: Outstanding projects at the junior level related to two of the following fields: Steel, Environmental or Chemistry

New Scientist Awards

Prize: Four awards of \$50 each

Criteria: Projects that demonstrate a good understanding of the scientific method by a first time entrant in BASEF.

Nikola Tesla Innovation Award

Prize: \$100

Criteria: Project which best displays the most innovative application of the body of knowledge associated with Nikola Tesla's work, and/or acknowledgment of Nikola Tesla's contribution by way of his work and inventions in the display.

SPECIAL AWARDS (Continued)

Primary Fluid Systems Awards

Junior or Intermediate Earth and Environment Awards

Prize: Two cash awards each of: \$125, \$75, \$50

Criteria: Deserving projects in junior or intermediate earth & environment

Junior or Intermediate Engineering Awards

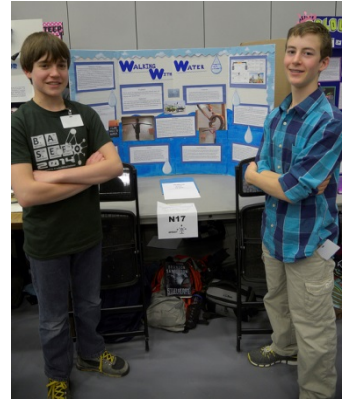
Prize: Two cash awards each of \$250, \$150, \$100

Criteria: Deserving projects in junior or intermediate engineering.

Junior or Intermediate Physical Sciences Awards

Prize: Two cash awards each of \$125, \$75, \$50

Criteria: Deserving projects in physical science.



Procor Engineering Awards

Prize: Junior: \$50, Intermediate: \$100, Senior: \$150

Criteria: Excellent engineering projects

Professional Engineers of Ontario Hamilton-Burlington Chapter Awards

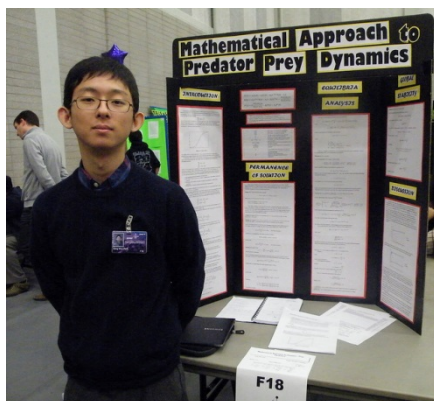
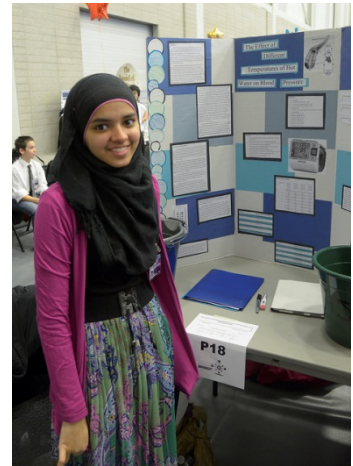
Prize: 1st: \$250, 2nd: \$150, 3rd: \$100

Criteria: Deserving, exceptional, outstanding projects in Engineering at any level.

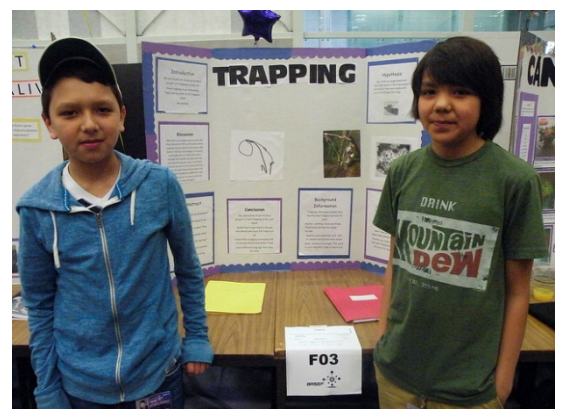
Professional Engineers Ontario Oakville Chapter Awards

Prize: Three awards of \$100 each

Criteria: Deserving engineering projects



Some of the
projects presented
at
BASEF2014



Scenes from Canada Wide Science Fair 2014



Scenes from the Intel International Science & Engineering Fair 2014



SPECIAL AWARDS (Continued)

Rotary Club of Hamilton-East Wentworth Awards

Prize: 1st: \$250, 2nd \$150, 3rd \$100

Criteria: Best projects from schools situated in the Hamilton core as determined by the judge

Royal Botanical Gardens Award

Prize: \$100 gift certificate from RBG shop plus 1 year RBG Family Membership

Criteria: Best project in botanical or environmental sciences

SPIE International Society for Optics & Photonics Science Fair Awards

Prize: 1st: \$250USD, 2nd: \$150USD, 3rd: \$100USD, to be requested by winners after the fair

Criteria: Projects in optics or photonics where students best apply optics or photonics technology, techniques or principles.

The Research Institute at St. Joes Hamilton, Health Research Award

Prize: One cash award of \$100 at the intermediate or senior level, and one of \$50 at the junior level

Criteria: Outstanding projects that use strong scientific principles in exploring or solving a problem related to human health issues and communicates the results of their project through an effective visual display.



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The BASEF 500 AWARDS



Eighteen projects* will win a \$500 prize.

The "BASEF 500 Awards" are funded by a generous donor who wants to generate interest and encourage participation in the Fair.

The awards, based on merit judging marks, will be awarded to the top 18 projects that win \$200 or less in other cash prizes.

* The winners must be first time recipients of these \$500 awards. Award will be split between the partners.

Two schools will each win a \$250 New School Award.

Funded by the same donor, the teachers from the two new** schools with the best project scores will win these awards for use in their classroom.

** schools that have not had projects in BASEF for at least 5 years

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Hillfield Strathallan College Entrance Scholarship Award

Prize: One \$5,000 entrance scholarship toward tuition fees, to be redeemed upon acceptance as a full time senior school student entering Hillfield Strathallan College in any of grades 9 to 11 for the 2015-16 academic year. (Will be awarded to both students in a team project – maximum \$10,000 value).

Criteria: The best project demonstrating excellence in scientific learning with joy and purpose

McMaster University Faculties of Science & Engineering Entrance Awards

Prize: Five \$500 entrance awards, to be redeemed upon acceptance of admission to either of the Faculties of Science or Engineering. (Joint student winners will split the award).

Criteria: Projects demonstrating excellence in Science or Engineering research.

McMaster University Women in Engineering Entrance Awards

Prize: Two \$500 entrance awards, to be redeemed upon acceptance of admission to Engineering I or Engineering I Co-op. (Joint student winners will split the award).

Criteria: Projects led by female students that demonstrate excellence in health sciences, science or engineering.

University of Ottawa Entrance Scholarship

Prize: \$1,000 entrance scholarship applied to tuition fees upon being accepted into and registration in an undergraduate program in the Faculties of Engineering, Science or Health Sciences at the University of Ottawa. (Joint student winners will split the award).

Criteria: The most deserving Senior project.

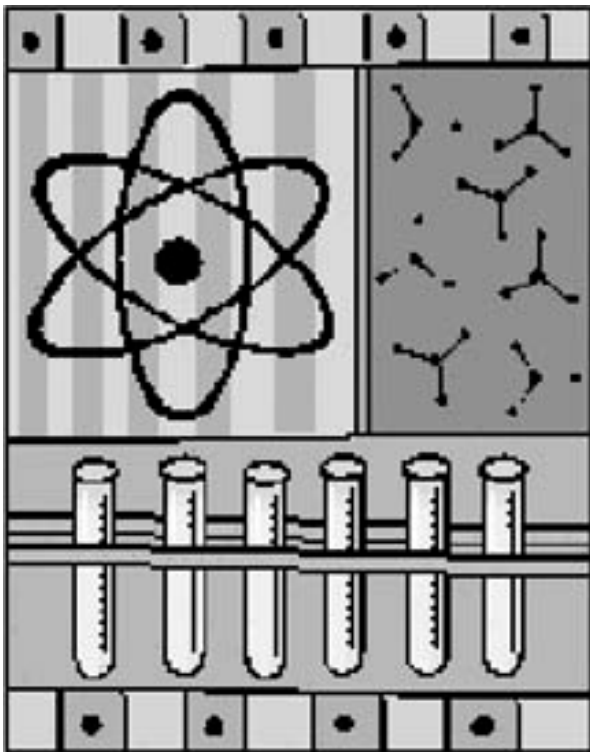
Awarded to all projects earning Gold, Silver or Bronze Merit Award Winners

Mohawk College and Sheridan College – Award of Excellence Tuition Scholarship



Mohawk College and Sheridan College will provide a \$500 scholarship to ALL BASEF 2015 Merit Award (Gold, Silver, Bronze) winners. The scholarship may be used toward first year tuition upon the recipients' acceptance and registration in any full-time program at either Mohawk College or Sheridan College. If multiple scholarships are accumulated over more than one year, only one of these scholarships may be used.

Proud sponsor of BASEF and the 2015 Merit Awards



**“Opportunity is missed
by most people
because it is dressed
in overalls and
looks like work”**

Thomas A. Edison



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MERIT AWARDS

Sponsored by Primary Fluid Systems



Merit Awards recognize the tremendous amount of thought and effort that has gone into the projects entered in the Bay Area Science and Engineering Fair. They are the result of an extensive judging process undertaken by over 150 independent judging volunteers who have come forward from educational institutions, local government organizations, business and industry in our regions. All participants in the Bay Area Science and Engineering Fair are eligible to win Merit Awards.

The Awards are issued to projects that meet the following criteria:

For Junior, Intermediate, Senior levels in:

- Health Sciences (Human)
- Life Sciences (Non-human)
- Physical and Mathematical Sciences
- Biotechnology
- Engineering and Computing Sciences
- Earth & Environmental Sciences

Scoring:

over 90% & ranking in top 7.5% of category:	earns Gold medal & cash award
over 80% & next 10% of category:	earns Silver medal & cash award
over 75% & next 12.5% of category:	earns Bronze medal & cash award



We are honoured to support the 55th Annual Bay Area Science and Engineering Fair

We applaud the achievements of all BASEF 2015 participants
as future innovators, entrepreneurs and leaders of tomorrow!

McMaster University has gained an international reputation for the
innovative educational programming offered by each of its six faculties.

Undergraduate teaching is conducted through the DeGroote School of
Business, the Faculties of Engineering, Health Sciences, Humanities,
Science, and Social Sciences, and the distinctive Arts & Science program.

future.mcmaster.ca



GRAND PRIZE AWARDS



Winners of Grand Awards have designed, researched and presented excellent projects.

ARCELORMITTAL DOFASCO PINNACLE AWARDS

BASEF's Pinnacle Awards are presented to each of the top three projects in the fair. These awards are based on the project's Merit Award score. Each winner receives an engraved plaque; trophies are awarded to the winner's schools.



DRS. RANJAN SUR AND MONALISA SUR AWARD

Best Intermediate or Senior level project at the fair, a plaque to the winner's school.



ROY MIDDLETON MEMORIAL AWARD

Best Junior Level Project at the fair, a plaque to the winner's school.



HERB GILDEA MEMORIAL TROPHY

A trophy is awarded to the secondary school accumulating the most points. Points are earned from the number of projects entered from the Intermediate and Senior levels of each school and those projects earning Gold, Silver and Bronze Merit Awards.

BASEF COMMITTEE TROPHY

A trophy is awarded to the elementary school accumulating the most points. Points are earned from the number of projects entered from the Junior level of each school and those projects earning Gold, Silver and Bronze Merit Awards.



GRAND PRIZE TRIP AWARDS



INTEL INTERNATIONAL SCIENCE & ENGINEERING FAIR TRIP AWARDS



Advancement to the 2015 Intel International Science & Engineering Fair, to be held in Pittsburgh, Pennsylvania from May 10 to 15, 2015. All trip expenses paid.

Up to 3 projects will be chosen from excellent exhibits at the secondary school (Intermediate & Senior) level.

Winners will be chosen from those high school entrants that declared they were able to travel into the USA (Canadian citizenship or landed immigrant status, with valid passport in-hand) as part of the BASEF registration process.

Sponsored by



CANADA WIDE SCIENCE FAIR TRIP AWARDS

Advancement to the 2015 Canada Wide Science Fair (all trip expenses paid), to be held in Fredericton, New Brunswick from May 9 to May 16, 2015.



Fredericton 2015

Up to 16 students who have presented excellent projects will be chosen (dependent on funding levels).

All projects entered in BASEF 2015 are eligible.

Sponsors are

- City of Hamilton, Economic Development Department
- Halton Catholic District School Board
- Halton District School Board
- Hamilton-Wentworth Catholic District School Board
- Hamilton-Wentworth District School Board
- Hillfield Strathallan College
- John Deere Canada ULC
- McMaster Innovation Park
- Masters Insurance (Hamilton)

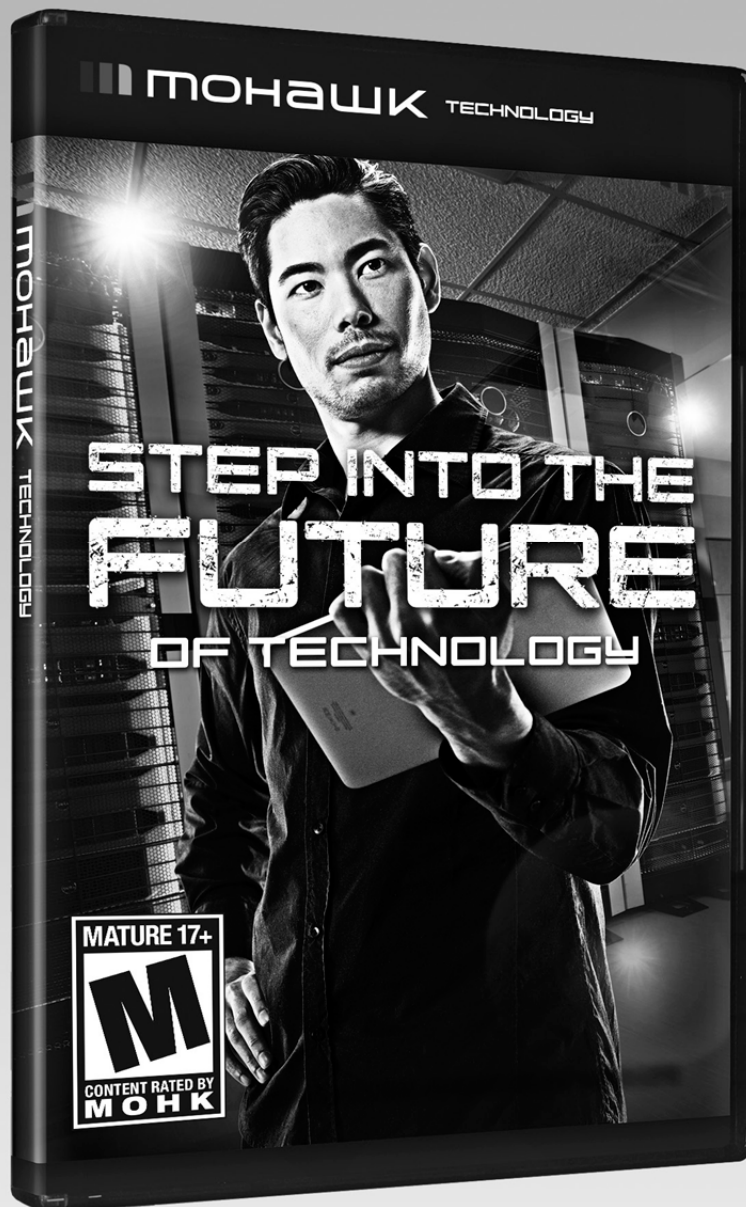


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