

CWSF 2024 Finalists: Ella Sehn (Silver Medal & Sanofi Biogenius Award) Kayley Carter Phillips (Bronze Medal) and Hansen Chen

Contact us Email: peterboroughsciencefair@trentu.ca

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Peterborough Science Fair



Peterborough Regional Science Fair

The 56th Annual **Peterborough Regional Science Fair**



April 8th, 2025

Sponsors

Thank you to all our sponsors whose support and generosity make the Science Fair possible!

Diamond Level (\$2000 and higher)











DEAN OF ARTS AND SCIENCE

Platinum Level (\$1000-\$1999)

KPR



Kawartha Pine Ridge

District School Board









University Scholarship (\$1000)





OFFICE OF THE REGISTRAR

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Bronze Level (\$100-\$249) Continued





Prize Donations

Dr. Stephanie Rutherford The Emery Family Dorothy Howard-Gill Chad and Louise Campbell The Plassery Family Dr. Raymond & Kathleen March



Sponsors

Thank you to all our sponsors whose support and generosity make the Science Fair possible!

Silver Level (\$250-\$499)

Bronze Level (\$100-\$249)



Gold Level (\$500-\$999)





Performance Materials

PHYSICS AND ASTRONOMY DEPARTMENT

SHAW COMPUTER SYSTEMS INC.

NORTHSTAR



The Women Surgeons of Peterborough and the Kawarthas

Schedule of Events

- 8:00-8:45 Project set up
- 9:00-11:30 Judging
- 11:30-2:00 Public Viewing
- 12:15-1:00 Lunch Break (Primary and Elementary)
 -Note: Cash is not accepted at the Trent cafeteria
- 12:30-1:15 Lunch Break (Junior, Intermediate and Senior)
- 2:00 Room door prizes (must be there to win)
- 2:15 Project takedown
- Ice Cream outside Wenjack Theatre donated by Central Smith
- 3:00 (sharp) 4:30 Awards Ceremony in Wenjack Theatre -There will be a pause in the Ceremony after the Elementary Awards for those that need to leave

All day activities

- Digital Attractions Photos downstairs KWIC 9:00 2:15
- Tracks ESB downstairs just past KWIC 10:30 2:00
- Guess the Candy Game in ESB and CSB Hallway
- Quiet Room in ESB C205
- Trent Recruitment in CSB Hallway 11:30-1:00

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Welcome from the Dean of Science

As the Dean of Science at Trent University, it is my pleasure to welcome you to the 2025 Peterborough Regional Science Fair (PRSF). Our university community is delighted to have all of you join us on campus. The fair has been at Trent for 56 years and it's a tradition that we are very proud to support.

The Fair is made possible through the enthusiasm and service of the PRSF committee members, judges, teachers, families, volunteers and sponsors. Every year they commit their time and energy to host the best Fair possible, which in past years was one of the largest in Canada. I am grateful for their dedication, which ensures the annual fair remains a success. I personally thank you, our participants, for your dedication and your pursuit of science. I would also like to acknowledge the teachers and families whose encouragement is vital to student success.

Trent University offers a strong environment supporting scientific research, experiential learning and community engagement including communitybased research. The PRSF offers many of those same elements for the youngest members of our community. We are always excited to see and learn about your experiences driven by a passion for exploration, scientific curiosity and discovery. Maybe one day you will study at Trent!

During the day I hope you explore our beautiful campus on the banks of the Otonabee river. Walk over our award-winning bridge for the best view! If it's a warm spring, eat outside in our gardens that are starting to bloom. I hope that you also make time to connect with other young science enthusiasts from all corners of the Kawarthas. You are the future of science, and scientific exploration is limitless.

I am certain today's experience will be a life-time memory. Thank you for joining us today, and I wish you all good luck and good fun at the Fair.

Sincerely,

Sand WA

Sarah West, Ph.D. Dean of Science Trent University

Special Awards: Junior, Intermediate and Senior Continued

- \$1,000 Entrance Scholarship, University of Ottawa: Senior
- \$1,000 Entrance Scholarship, Trent University: Senior

Canada Wide Science Fair Grand Prize Junior, Intermediate or Senior

Students will compete at the Canada-Wide Science Fair, University of New Brunswick, Fredericton, May 31st to June 7th, 2025

\$100 Third Place Thomas Howard Award Trip to Canada-Wide Science Fair Sponsored by Ontario Power Generation and BWXT Nuclear Energy Canada

\$150 Second Place Sponsored by Dr. Stephanie Rutherford Trip to Canada-Wide Science Fair Sponsored by SGS

\$200 for Best of Fair Kathleen Peacock Award Trip to Canada-Wide Science Fair Sponsored by SGS

In Memoriam



Dr. Raymond March, Ph.D., Chemistry Professor Founder of the Science Fair March 1934 - January 2025

Senior 11-12 Continued

Health & Life Sciences

 Honourable Mention, Third, Second, First Sponsored by Ontario Power Generation

Earth & Environmental Sciences

 Honourable Mention, Third, Second, First Sponsored by The Rotary Environmental INNOVATORS Fund

Computing & Engineering Sciences

 Honourable Mention, Third, Second, First Sponsored by BWXT Nuclear Energy Canada

Special Awards: Junior, Intermediate and Senior

- \$75 Random Rookie Raffle Three \$25
- \$80 Peterborough Field Naturalists Award Two \$40
- \$100 Institute for Integrative Conservation Biology at Trent University: Ecology & Evolution Award: Junior
- \$250 Otonabee Region Conservation Authority Award for Environmental Excellence: Junior Earth and Environmental Sciences
- \$100 Trent School of the Environment: Earth and Environmental Sciences
- \$100 Luc C. Matteau Award: Sponsored by Institute of Electrical and Electronic Engineers
- \$150 Professional Engineers of Ontario Peterborough Chapter Innovation & Impact Award
- \$200 Water Environment Association of Ontario Award: Intermediate—Two \$100
- \$200 Maple View Farms: Health and Life Sciences Two \$100
- \$200 Society of Environmental Toxicology and Chemistry Award (Laurentian SETAC Chapter): Two \$100
- \$400 Ontario Tech University Innovation Award Two \$200



Welcome from the Chair

Greetings young scientists!

I'm delighted to welcome you to the 2025 Peterborough Regional Science Fair! Last year, the judges, the committee, and I were blown away by your projects. Our public viewing was filled with positive remarks on your research and experiments. Many projects exhibited current innovations in science, which aligned well with our keynote speaker, Ian Thomas from Trent University, who spoke on the ever-evolving topic of Artificial Intelligence (AI). After acknowledging your work with awards and prizes, we ended the day by announcing our three Canada-Wide Science Fair (CWSF) finalists: Kayley Carter-Phillips, Hansen Chen, and Ella Sehn. These young scientists spent a week exploring our nation's capital and brought back a bronze medal (Kayley), a silver medal (Ella), and the Sanofi Biogenius Canada Award (Ella).

And now we're back at our local fair with more exciting projects from your homes and schools. The science fair is not only a competition; it's a way to build connections with your local scientific community. Our fair badge highlights this idea by illustrating this year's theme, the magical Kingdom of Fungi! Later today, you will connect with our keynote speaker from Trent University, Susan Chow, who will share her knowledge and experience on the wonderful world of mycology.

We aim to instill in you a love for science through community. While only a few will travel to Fredericton, New Brunswick for the CWSF, every project you see today is an exceptional representation of the diligence and revolutionary thinking of our student community here in the Peterborough Region. From treating illness, to optimizing transportation methods, you have a place in our science fair community. We are here to learn from you, and hope that you leave having learned something too :)

Finally, I would like to express my gratitude to everyone who makes this fair possible. To the volunteers who plan or judge the fair, our sponsors who facilitate its operation, the teachers and parents who are up late helping with last minute touches, and the always supportive friends and family – thank you! And of course, to the participants – thank you for the time, effort, and passion you have put into joining our community of scientists, Welcome.

Celebrate Science. Engage. Explore. Experiment!

Best wishes,

Umikla. Sumiko Polacco, M.Sc.

Committee Members

Sumiko Polacco - Chair	Neil Emery
Sarah Langer – Vice Chair	Smolly Coulson
Shawna Corcoran – Treasurer	Jill Emery
Patty Carlson – Secretary	Erin Morrison
Brian Patrick	Donald Fraser
Sean Dunn	Cassie DeFrancesco
Craig Murray	Jessica Livingstone

Special thanks to Laurence Emery for the sticker design work

Keynote Speakers at Awards Ceremony



Attention all young science scholars!

Somewhere...deep underground at Trent University lies the Mysterious Mycelium Atelier. For today only, you will get a sneak peek into the world of fungi. If you dare, you can even join us to perform some questionable experiments, so you can decide if fungi is your friend or foe.

Sincerely,

The head of the Good Fungi House Headmistress Ms. Shaggy Mane and Dr. Deathly Galerina of the Evil Fungi House

Fun Fungi Facts:

Mushrooms are classified in the Fungi kingdom, which is known as the 'dark kingdom' because so little is known about them.

They are more closely related to people than to plants.

They were one of the first organisms on land.

Some fungi can break down petroleum products.

You can make vegan leather from tinder mushrooms. For example, to make gloves and hats

Awards

Junior 7-8

Physical & Mathematical Sciences:

Honourable Mention, Third, Second, First

Health & Life Sciences

- Honourable Mention, Third, Second
- First: Dr. Agnes Moffat-Magee Award
 Sponsored by Canadian Federation of University Women

Earth & Environmental Sciences

• Honourable Mention, Third, Second, First Sponsored by the Plassery Family

Computing & Engineering Sciences

 Honourable Mention, Third, Second, First: Sponsored by Institute of Electrical & Electronics Engineers

Intermediate 9-10

Physical & Mathematical Sciences

Honourable Mention, Third, Second, First

Health & Life Sciences

 Honourable Mention, Third, Second, First Sponsored by Ontario Power Generation

Earth & Environmental Sciences

 Honourable Mention, Third, Second, First Sponsored by The Otonabee Region Conservation Authority

Computing & Engineering Sciences

 Honourable Mention, Third, Second, First Sponsored by BWXT Nuclear Energy Canada

Senior 11-12

Physical & Mathematical Sciences

 Honourable Mention, Third, Second, First Sponsored by Trent University Chemistry Department

Awards

Primary K-3

General Science Honourable Mention, Award of Excellence and Best Overall

Elementary 4-6

Biological Science

Honourable Mention, Award of Excellence and Best Overall

Physical Science

Honourable Mention, Award of Excellence and Best Overall ٠

Primary and Elementary awards Sponsored by Women Surgeons of Peterborough and the Kawarthas

Special Awards: Primary and Elementary

- \$50 Random Rookie Raffle Two \$25 ٠
- \$80 Peterborough Field Naturalists Awards Elementary Two \$40
- \$100 Institute for Integrative Conservation Biology at Trent University: ٠ Science & Discovery Elementary Award

All Divisions Eligible

- \$50 The Community Betterment Award Sponsored by Chad and ٠ Louise Campbell
- \$100 Shaw Computer Systems Award for Energy Management
- \$200 Peterborough Astronomical Association Award Two \$100 . awards

Teacher Award

Two awards are given to teachers that stand out as an inspiration to their students to explore science!

Top School Award

This is awarded to the school with the most number of students participating in the fair...so get all your classmates involved!

There will be a pause in the Ceremony at this point if anyone needs to leave. 10

Participants

We serve schools in the Peterborough region including: Kawartha Pine Ridge District School Board, Peterborough Victoria Northumberland and Clarington Catholic DSB, Trillium Lakelands DSB, private schools and homeschooled students.

Primary Grades K-3

Ezekiel Butler	Madeline Haan	Abigail Parker
Emmett Copeland	Naomi Hartshorn	Addison Pieper
Kalea Curry	James Hurst	Nitvik Rajeshkumar Indumathy
Oliver Feldman Reyes	June Hurst	Diana Tobin
Lucas Friesen	Franklin Johnson	Laura Topping
Adelena Gagliardi-Stabler	Jade McNevan	Renley Waddell
Galvin Gagliardi-Stabler	Oliver Mertick	Caroline Zhang

Elementary Grades 4-6

Abigail Ahee	Samarpan Cheema	Amelia German
Hudson Armour	Mabel Coe	Kenzie Gilkinson
Emberly Arthur	Raylan Copeland	Isla Girard
Paige Baker	Kinsley Curry	Zoe Giroux
Sophia Isabelle Balajadia	Eden Davey	Gwen Godwin
Grayson Bates	Spencer Davies	Owen Gooderham
Ryan Beers	Annabelle DeBlock	Emmett Guerin
Rosemary Belanger	Max DeGroote	Miracle Hanna
Josephine Berlingeri	Gwendolyn Doucet	Fitz Harber
Vienna Black	Malcolm Feldman Maturano	Isaac Harris
Sybil Boadway	Dylan Ferguson	James Hess
Olivia Bush	Stella Forstner	Hydie Hogle
Jocelyn Caly	Leah Friesen	Clara Hutchinson
Oliver Castillo-Snook	Sai Gadvir	Omar Ibrahim 7

Elementary Grades 4-6 Continued

Ellie Ingram	Owen McNamara	Eve Rowan
June Jackson	Callan Moore	Addison Ryt
Heidi Kam	Mackenzie Murdock	Riley Salo
McKynlee Kennedy	Rohan Naganath	Maizey San
Ziyi (Elsa) Kong	Sage Newland	Darla Simm
Victoria Lee	Owen Oaks-Cross	Charlotte Si
Brooklynn Lenneville	Malachi Ogutu-Were	Rebecca Sn
Naomi Lennie	Mikka Ogutu-Were	Jack Stewar
Pyper Lipsett	Brynnleigh Otter	Audrey Swe
Axel Lizares	Callum Otter	Liah Van
Ava Markle	Lydia Parker	Naomi van I
Ayla McCracken-Reed	Lucas Patton	Samantha V
Kailey McDannold	Spencer Pearce	Reagan Wal
Taylor McDannold	Edeline Pineo	Hunter Web
Jordyn McInroy	Bernadette Poland	Sophia Whi
Lydia McIntyre	Bohdan Renaud	Maria Wood
Isabelle McLean	Piper Robbins	Adeline Zha
Dayla McMullen	Logan Root-Maher	
	June Jackson Heidi Kam McKynlee Kennedy Ziyi (Elsa) Kong Victoria Lee Brooklynn Lenneville Naomi Lennie Pyper Lipsett Axel Lizares Ava Markle Ayla McCracken-Reed Kailey McDannold Taylor McDannold Jordyn McInroy Lydia McIntyre Isabelle McLean	June JacksonCallan MooreHeidi KamMackenzie MurdockMcKynlee KennedyRohan NaganathZiyi (Elsa) KongSage NewlandVictoria LeeOwen Oaks-CrossBrooklynn LennevilleMalachi Ogutu-WereNaomi LennieMikka Ogutu-WerePyper LipsettBrynnleigh OtterAxel LizaresCallum OtterAyla McCracken-ReedLucas PattonKailey McDannoldSpencer PearceJordyn McInroyBernadette PolandLydia McIntyreBohdan RenaudIsabelle McLeanPiper Robbins

Junior Grades 7-8

Maryam Abid	Angelo Berlingeri
Cash Adams	Jaxon Blacklock
Beatrix Aitken	Thomas Boustead
Kate Aitken	Lochlan Brown
Irish Austin	Evelyn Canning
Ella Baklinski	Hugh Cathcart
Gabrielle Barona	Ethan Christis-Brouwer

on Ryback Salo ey Sanderson Simmons lotte Smith cca Smith Stewart ey Sweeney /an ni van Berkel antha Vignarajah an Walton er Webb ia Whitmore Woodcroft ne Zhang

Spencer D'Amico-Davies William Donaldson Charlotte Fleming Bryce Flynn James Hess Xander Holland Chase Howard

Junior Grades 7-8 Continued

Therese Jalsevac Noah Jermyn Moses Jesumaria Levi Jonkers Joycelyn Kang Finn Kelly Talia Lennie Zoe Li Cameron Loughlin Maggie Mantifel Elliott Martin Jack Matchett

Intermediate Grades 9-10

Ella Jane Aitken Claire Jalsevac James Aitken Isaiah Jalsevac Abigail Baxter Clare Leahy John Canning Logan MacDonald Leah Ferguson Vivienne MacEachern Ira Hodges Lisette MacEachern

Timothy McKeiver Rio Meehan Jasper Newland Tevia Newman Matthias Ogutu-Were Lucas Pearce Tyler Phillips Henley Picken **Teresa Poland Rocchina Ricci** Lexah Rodger Claire Sehn

Tyler Smith Wallace Sterpin Finn Thompson White Charlie Thomson Keira Thorndyke Logan Troy Sahana Vignarajah Christina Wilson Josephine Winn Imo Wong Max Wong

Pearl MacGregor Zena Muhandes **Teresa Peeters** Maddie Rychel Ella Sehn Oliver Wadds

Senior Grades11-12

- Lily Clark-Knapp Naomi D'Souza Henry Elliott Eli Gibson
- Robert MacGregor **Gregory Murray** Noah Nowak Abigail Torres

Sophie Wigglesworth Brendan Xuereb Isabelle Young Xinlin Zhou