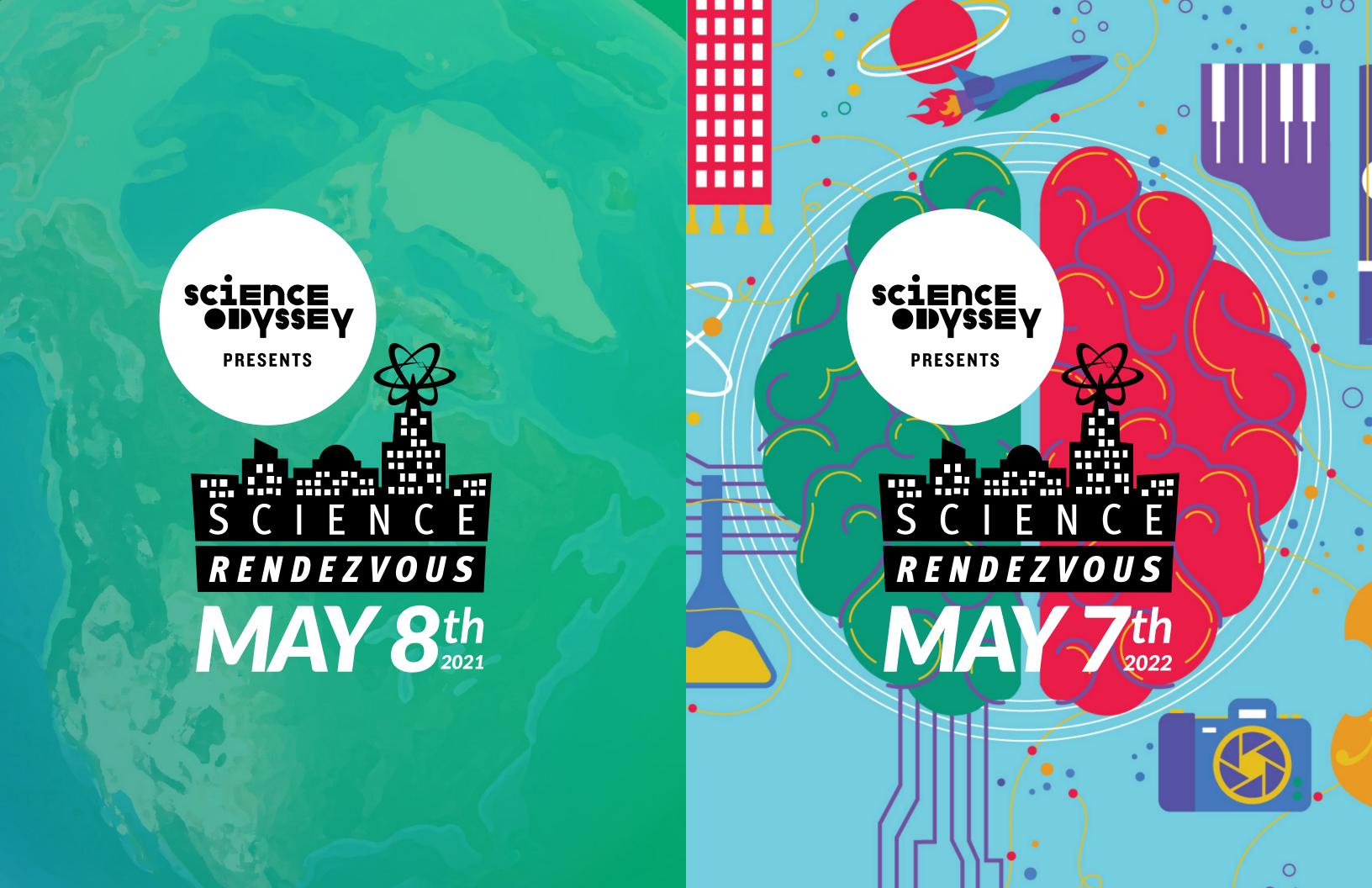
Development Kit 2

# **SCIENCE RENDEZVOUS**

**2021 + 2022 ANNUAL REPORT** 



## **SCIENCE RENDEZVOUS**

#### 2021 + 2022 ANNUAL REPORT

Science Rendezvous (SR) is the only organization of its kind to invite the public to the places where innovation and discovery happens, to learn about current Canadian research and achievements directly from the scientists and other STEM professionals themselves. Science Rendezvous has shown that it is a resilient organization throughout the COVID-19 pandemic. The SR national organization and it's affiliate teams developed an entire digital strategy and presence for 2021, and hybrid events for 2022.

All together, SR challenged 200,000 attendees to DISCOVER science at 45 virtual events and 9 in-person science festivals. Science Rendezvous' free events and festivals were hosted by teams at leading research institutes across the country that invited the public to come get their hands on science, technology, engineering, and math (STEM) — or STEAM with the inclusion of "art" — experience the rush of creation, and have an opportunity to play and learn directly from Canada's top researchers.

2022 marked the 15th year for the grassroots event that is uniquely produced by scientists. Nearly 1,200 volunteers across the country were made up of scientists, engineers, mathematicians, technologists, innovators, and the next generation of graduate and undergraduate students. Together, these volunteers invested nearly 15,500 hours to share their passion for STEM with public.

SR creates a wonderful platform to showcase the world leading research being done at Canada's leading



research institutions, and provides an opportunity to strengthen the science promotion activities within their surrounding communities. Over 285 partners from various college and university departments, as well as community STEM promoters and advocates, work in close collaboration to create these incredible events.

In 2022, our theme was DISCOVER. We asked the public to explore what it means to discover and to experience the joy of discovery by showcasing the creativity of STEM disciplines in new and exciting ways. SR events are true meeting places (rendezvous) of STEM, and we have earned our place as Canada's national science festival!





**CREDIT: Top — Garrett Elliott** Bottom — Science Rendezvous Western





# **POWERED BY NSERC**

Science Rendezvous (SR) is an important capstone event that falls with the national "Science Odyssey" celebrate Canadian achievements in science, technology, engineering, arts and mathematics. SR is the largest public to see the places where research happens and ask questions of NSERC funded researchers directly. In 2019, (the last full in-person, pre-COVID event year) SR reached over 215,000 attendees across the country on the same day. In 2020, events for SR and Science Odyssey were cancelled due to COVID-19. events. SR successfully engaged over 100,000 participants directly with interactive and exciting virtual STEAM experiences, over 15,000 in-person attendees in 2022, and reached 50 million more through social media

campaign, the Natural Sciences and Engineering Research Council of Canada's (NSERC) national program to one-day, free, science festival in the country. SR works with Universities and Colleges to open doors for the While challenges and concerns regarding the global pandemic continued in 2021-2022, Science Rendezvous affiliates stayed positive and worked collaboratively and creatively to develop innovative solutions and virtual platforms. We are so happy to be partners in the Science Odyssey campaign and look forward to grow both events for 2023.

SCIENCE ODYSSEY

## POWERED BY NSERC

# WHO, WHAT, WHERE

Science Rendezvous is the only organization of its kind to invite the public to the places where innovation and discovery happens; and to learn about current Canadian research and achievements directly from the scientists and other STEM professionals themselves. Science Rendezvous has shown that it is a resilient and impactful organization throughout the COVID-19 pandemic. Collaboratively, the Science Rendezvous national organization and it's affiliate teams developed an entire digital strategy and presence for 2021, and hybrid events for 2022. SR affiliate teams are often started by a handful of passionate researchers looking to engage more directly and share their passion for what they do with the public. Through Science Rendezvous they find support, programming, a collaborative network of like-minded passionate scientists and researchers, and a voice loud enough to be heard far beyond the typical science promotion audience range. Science Rendezvous strives to develop teams composed of the most passionate STEM advocates of all genders, races, abilities, religions, and sexual orientations. Through its one day, signature STEM event, SR not only asks "Who can do science?" but shows that everyone is welcome and able to do science.

By reinventing STEM programs for a virtual setting, SR encouraged participants to "get their hands on science", while staying true to the SR model. Virtual editions of Science Chase, conferences, hack-a-thons, game spaces, and a brand new national Canada Wide Experiment the Million Tree Project were all launched in 2021 and 2022. Innovative STEM communication initiatives were developed by volunteers, researchers

# 1,500,000 Canadians Reached 48,000 Volunteers

and partner event teams, including virtual exhibits, a new BLOG space, the "I am a Scientist" series and other virtual exhibitions that showcased Canadian research. Additionally, nine in-person events across Canada were held safely on May 7, 2022. Science Rendezvous was able to continue to reach the public in 2021 and 2022, with fun and engaging STEM experiences and successfully reached over 200,000 participants through direct SR outreach programming.

SR strives to tackle the very difficult science communication question, "what is science?" What do we mean when we say, "science says...", or "because science." The COVID-19 experience has shown us that we have more work to do! At Science Rendezvous we strive to demonstrate that "science" is a verb not a noun. It is a process of neverending questioning, rigorous testing and continuous re-investigation as new experiments add to our knowledge. Science can and is the best way to predict an outcome or result. Science works, but no conclusion is ever final. There is always more to learn. The more we are able to demonstrate this to the public, the more they will understand the important and urgent communication coming from the scientific community.

Hosting SR events at universities and colleges is another important and unique feature of Science Rendezvous that we feel is extremely important, and we hope we can get back to safely in 2023. While research institutions often host free and open events, activities and lecture series, feedback each year consistently shows that we are reaching a different audience than would normally attend these outreach initiatives. SR events that were held in-person in 2022, were done safely and attendance was nearly double that of the events from 2019 (last in-person event year), demonstrating that there is a strong desire from Canadians to re-engage with the Science Rendezvous. Being present on campus, along with lab tours, participating in experiments, shows, demonstrations, and interacting with researchers in all STEM fields, goes a long way to ensure attendees feel welcome and included in the places science and research happen every day.

**CREDIT: Garrett Elliott** 

# **15 YEARS OF SUCCESS!**

# 20,000 Researchers 750,000 Volunteer Hours

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## **CORE PROGRAMMING** STUDENT & VIRTUAL EXECUTIVE TEAMS

Science Rendezvous had to pivot and develop programming to reimagine student and virtual executive teams who were capable of coordinating an SR event with limited faculty, campus and administrative support. Working collaboratively and virtually as a team and with national SR support, these students and executive teams were able to take the lead on event planning requirements of Science Rendezvous. Roles and responsibilities for each member of the virtual executive team were clearly defined and students and volunteers were given an opportunity to gain valuable virtual project management experience for career development. This relieved the burden on the administration and faculty and provided the students and volunteers with an opportunity to build a strong virtual community with other passionate and involved STEM enthusiasts from their own institution and across the country.

Feedback from virtual executive team members consistently shows SR executive team experiences to be hugely beneficial for mental health and overall feelings of belonging and well-being, particularly during those isolating times. Virtual executive teams felt supported and are able to develop a sense of community both institutionally and nationally.

Feedback over these past two years shows that involvement with Science Rendezvous inspired our student volunteers to continue pursuing their higher education aspirations.





#### **SCIENCE CARNIVAL**

The Science Carnival aims to create the most fun with STEM possible. It is an outdoor (or indoor) carnival atmosphere with large-scale demonstrations, stage shows, science buskers and 1,000s of hands on activities. Often food trucks, and other fun foods are brought to the science carnival, and can even become a fun and interactive demonstration on their own (the science of cotton candy, and liquid nitrogen ice cream are always fan favourites). In 2019 and 2022, Western University launched a "Science of Fireworks" show complete with a study of the various chemical elements using diffraction glasses. Talk about an exciting grand finale! The Science Carnival creates excitement and fosters a sense of wonder (or curiosity) that we want people to remember long after the day is done.

#### **INVENTours**

INVENTours showcases opens the door to over \$5 billion dollars of premier laboratories to the public so they can experience a behind-the-scenes look into the career of a scientist. I AM A SCIENTIST was the virtual version of INVENTours. Organized by volunteers and the scientists themselves, these tours allow participants to tour labs and to see and hear about current research directly from the researcher.

#### **SCIENCE CHASE**

Based on the television series The Amazing Race, the Science Chase is a super popular scavenger hunt- style challenge that engages participants, and helps direct them around the event site. Science Rendezvous used this Chase concept to create unique and exciting virtual programming in 2021 and 2022. STEM-based research, experiments and challenges were created for participants to learn, study and play on the Science Rendezvous website. Participants collected points virtually by completing quizzes and challenges while moving through the interactive map of Canada. Over 700 teams composed of 3-30 teammates participated in Science Chase virtually, engaging over 4000

participants from across the country and around the world! Science Chase programming was also utilized at various in-person events in 2022, creating an element of excitement while encouraging participants to travel to various activity stations throughout the Science Rendezvous event. Participants could learn about various scientific topics while tasked with challenges and activities throughout the Science Chase to collect points for a chance to win.

## **BLOG / VLOG STEM SHOWCASE**

The Science Rendezvous Innovation Showcase launched in 2017 in partnership with NSERC, as an exciting way to showcase current Canadian research and industrial partnerships to the general public. In 2018 and 2019, Science Rendezvous expanded the program to reach new partners and continue to demonstrate the exciting innovation happening across the country. Showcase stories are shared through Science Rendezvous' BLOG and VLOG, and through the various Science Rendezvous social channels. Sharing innovative research this way has reached many millions of people each year.



#### **SCHOOL DAYS**

Science Rendezvous recognizes that even as a free event, there are invisible barriers that prevent many of Canada's youth from accessing SR events. School Day programs were initially developed at the SR Winnipeg site to reach and connect directly with youths at schools who were — for various social, cultural and economic reasons — unable to participate at Science Rendezvous events for various social, cultural and economic reasons. There was a need to connect with these schools directly and literally bring them to SR, provide transportation and often meals as a part of this experience. This program has been has been widely successful, and programming has been shared nationally. Support to grow this program will be important in coming years as we currently have a waiting list each year of interested schools and teachers.

# MILLION TREE PROJECT

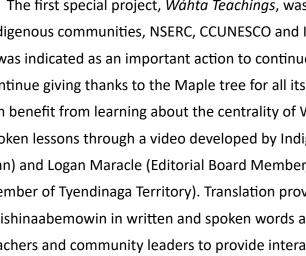
# **CANADA WIDE EXPERIMENT**

#### **THE MILLION TREE PROJECT**

In 2015, the Canada Wide Experiment (CWE) was developed in partnership with Indigenous community leaders and SR's Northern Program. It began as a high-altitude balloon experiment, and then became a water guality assessment experiment that traveled across Canada throughout the year.

In 2021, after exploring the air, and water, we came back to the land with the Million Tree Project. This will be a 10 year national experiment that is designed to spark a million conversations about tree, environment and climate sciences, and create action for deep learning and retention. Over the 10 years of the project, we are inviting Canadians to learn, connect, conserve, plant and care for trees in their communities across Canada. Partnering with CCUNESCO, NSERC, multiple First Nations, and our partners we have developed a bilingual resource centre, and are creating special projects and networks of partners working together to make a difference. Educational resources and various locally appropriate planting and conservation activities have been created, with over 15,000 trees planted and 75,000 activities to date.

https://www.sciencerendezvous.ca/million-tree-project/en/



Traditional Knowledge.





D MANY REASONS



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The first special project, Wáhta Teachings, was launched in September 2021, in partnership with local Indigenous communities, NSERC, CCUNESCO and Indigenous education leaders from Queen's University. It was indicated as an important action to continue to plant and preserve Wahta for seven generations to continue giving thanks to the Maple tree for all its gifts. Indigenous and non-indigenous community members can benefit from learning about the centrality of Wahta to various Indigenous cultures. Wahta incorporates spoken lessons through a video developed by Indigenous educator, Liv Rondeau, (Kanyen'kehá:ka, Wolf Clan) and Logan Maracle (Editorial Board Member, Queen's Journal of Indigenous Studies and Mohawk member of Tyendinaga Territory). Translation provides learning opportunities to explore Kanyen'kehá and Anishinaabemowin in written and spoken words about the Sugar Maple. This wonderful resource will allow teachers and community leaders to provide interactive learning experiences, and connect these activities with

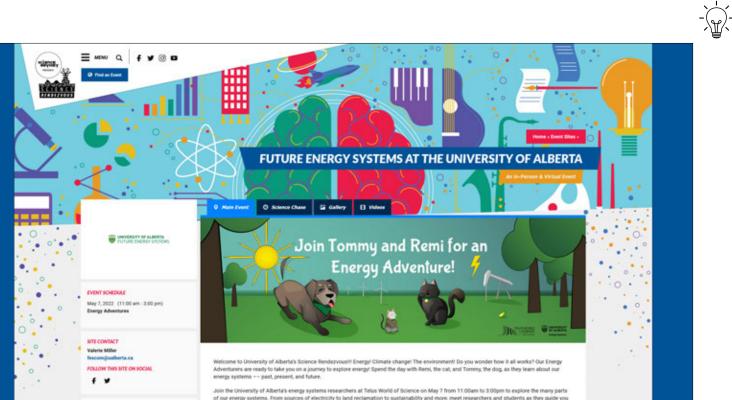
# **REACHING THE PUBLIC**

Science Rendezvous' goal has always been to garner enough media buzz and attention to reach beyond the traditional scientific community to the general public. Therefore, a huge communication campaign is coordinated each year which includes science communication, marketing campaigns, promotional materials, outdoor advertising, and connecting to all major media outlets. Breakfast television appearances were booked, TVO Kids appearances were arranged, pre-event and event day News pick-ups (Global News, CTV News, CBC Tonight) at most major event sites, and radio interviews and event plugs went out across the country.

In 2022, there were nearly 117 news articles and 26 broadcast pick-ups leading up to and on the event day from major news outlets, television and radio stations, creating over 86 million media impressions. Science Rendezvous focused efforts on science communication campaigns through social media. The conversation generated by SR was overwhelmingly positive across all social media platforms. Affiliate sites, participating partners, bloggers, journalists, and science promoters everywhere got behind Science Rendezvous and helped spread and share the details of the national events across Canada and throughout the world. In 2022, "Science Rendezvous", @sci rendezvous, and #SciRen were included in 4570 posts on facebook (and Instagram), Youtube, and Twitter. The potential reach number of social media impressions was over 20 Million.

Reach numbers are third party verified by MELTWATER INC., and links and clippings are available. Connect with the Executive Director at kathleen.miller@sciencerendezvous.org for more information.

**CREDIT: Science Rendezvous Western** 



#### **BY THE NUMBERS**

**News Articles** Reaching 1.7M pageviews

117 **News Articles** Reaching 66.6M pageviews

### IN 2022, SCIENCERENDEZVOUS. CA HAD 28,819 UNIQUE USERS.

Science Rendezvous' international reach in 2022 included online visitors from over 50 countries, includir obviously — Canada and the US, but also as far away as China, India, UK, France, and Sweden. One of our 2022 Science Chase winners was from Australia!

# 2021 REACH

Social Media Posts Reaching a potential 17M users (Facebook / Instagram / Twitter shares + retweets)

## 2022 REACH



Social Media Posts Reaching a potential 86.7M users (Facebook / Instagram / Twitter shares + retweets)





### **TOP 10 CITIES VISITING** SCIENCERENDEZVOUS.CA

	1.	Toronto
ng	2.	London
	3.	Vancouver
у	4.	Winnipeg
у	4.	Winnipeg

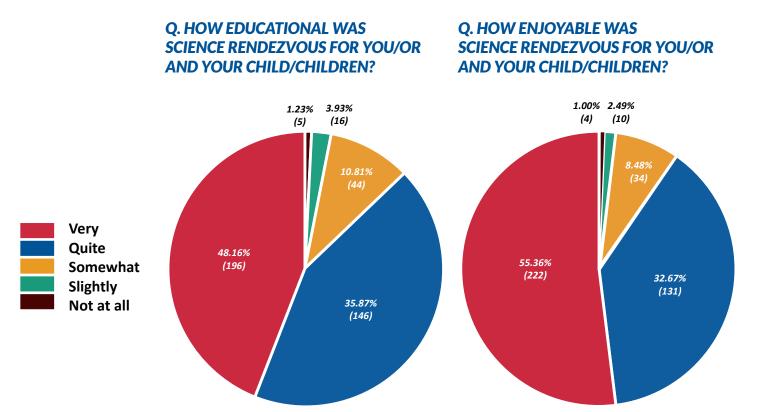
- 5. Ottawa
- 6. Kingston
- 7. Victoria / Oak Bay
- 8. Calgary
- 9. Mississauga
- 10. Montreal





Science Rendezvous has utilized an online survey at all event sites since 2012. The data gathered through this survey provides valuable information about how to improve SR's reach in the communities around event sites, the individuals who come to SR events, what events are doing well, and how SR can improve each year. Below we review some of the important findings from the 2021-2022 Impact survey.

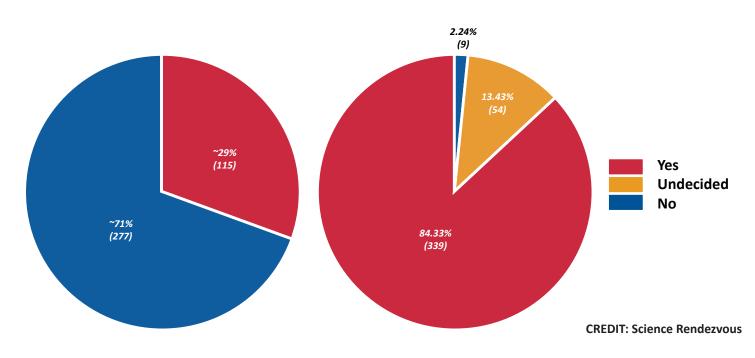
Over 83% of attendees found Science Rendezvous to be quite or very educational and over 88% of attendees reported that their children found SR to be guite or very enjoyable.



In a survey of Science Rendezvous volunteers, when asked how enjoyable their experience was volunteering from 0 (awful) to 100 (excellent), the average ranking was a 93!

Over 70% of attendees did not attend the event the previous year, and over 84% plan to return to the next event again the following year, showing great promise for SR events to continue to grow each year.

#### **Q. DID YOU PARTICIPATE IN** SCIENCE RENDEZVOUS LAST YEAR?





#### **Q. WILL YOU ATTEND** SCIENCE RENDEZVOUS NEXT YEAR?

# WHAT PEOPLE ARE SAYING

ATTENDEES

"This is hands down the most fun, interactive and engaging free event we have ever attended. It really is for anyone who will allow themselves to be curious and have fun. We loved how literally every station allowed us to participate. I wish there had been something like this when I was growing up! Keep up the great work, we can't wait for next year!!!"

"We had such a great time and were so impressed with how well the event was organized. There were so many interesting learning opportunities that we didn't even manage to get to every one. We participated in the bacteria workshop and my daughter was thrilled to be able to see a real lab and wore her lab coat around the rest of the day. We are so grateful to everyone who worked so hard to organize such a fun day and for all the enthusiastic and patient student volunteers. Thank you!"

"I was blown away for a free event! Very well organized and informative. The students/volunteers were extremely knowledgeable and able to speak/ explain to children with excitement. I did find that 4hrs was not enough time....SO much to see and do! We will just have to come back next year to experience what we missed this year! Well done!"

"It was utterly marvelous. So educational, exciting and an incredible array of stations from which to choose. Wonderful activities. Thanks for making it free of charge. "

"My kids really enjoyed the "scavenger hunt" style setup and the activities at the different stations. From building a DNA strand from twizzlers and marshmallows to making ice cream with liquid nitrogen to watching a supercooled magnet float around a track and much more. They were amazed and awed! The experience really sparked their interest in science and the world around them. The questions keeping coming and I love it. Looking forward to this years experience with them."

#### VOLUNTEERS

"When I served as Co-Chair last year, there was aware of Science Rendezvous and I participated as a not a single doubt in my mind that my team was general volunteer at the Non-Newtonian Fluid exhibit, phenomenal. In fact, last year was my favourite year I was completely overwhelmed and enthralled by of Science Rendezvous due to the sheer amount the enormous impact of Science Rendezvous on the of camaraderie, genuine friendship and team community as well as the incredible organizational effort collaboration that I witnessed. Our team contributed that was responsible for the event". - Rashi Gupta of the greatest student leaders and most ambitious minds with an immensely strong passion to promote Science Rendezvous has not only helped me to STEAM literacy to youth in our community. It was an enhance my own growth, I am also able to use honour to have worked with them all and never have this foundation for furthering my skills that can be I had such an empowering experience throughout my put towards my future professional and academic 4 years of undergrad." development for the many other opportunities to come. Thanks to SR, I've made many wonderful "Science Rendezvous was my first time taking on such friends along the way and I aim to continue building a large initiative and by the end of it, I couldn't believe this network" - Trinh Vo

the amount of personal growth I achieved. Not only did I further my leadership skills, I began to master my "Science Rendezvous helped me grow immensely as organizational and management skills in a dynamic a leader as I learned new ways to deal with festival team setting. Using this experience in leading an planning, funding, team dynamics and relations, executive committee to curate one of Canada's largest and organizational strategies. I was also able to science outreach festivals attended by over 25,000 meet truly inspiring leaders within the SR 2019 guests, I am now working as an Events Manager at the team and was able to share with them a passion for Creative Destruction Lab at U of T Rotman School of scientific literacy. The lessons learned from SR have Management. even translated to my day-to-day activities as a PhD candidate, helping me with my time management and

"Not only was it a fun experience to have the goal-setting." opportunity to make friends in such a large university, it was also fulfilling to see the excitement "I have entered my fourth year in my PhD this fall of on the visitors' faces when they interact with the 2019 and am continuing as Co-Chair for SR 2021. SR countless S.T.E.A.M exhibits SR had to offer. I see the has been an immensely rewarding experience, and importance of getting both children and adults excited has also been a large proponent of some accoldates over science so, I knew I wanted to get more involved. last year, including becoming a UTAA Graduate Scholar, awarded at the University of Toronto Awards I took on the role of a Volunteer Coordinator, and later as a Programming Liaison. SR gave me the of Excellence. For SR 2021, I hope to continue being opportunity to network with different people, make ambitious in expanding the scope of our festival and friends, and enhance my leadership skills. It gave me to continue promoting scientific literacy to Toronto insight on what it takes to organize successful, largeyouth and beyond." - Surath Gomis scale events. Even after 3 years of being involved with SR, I'm still looking forward to being a part of this "Throughout my undergraduate and graduate degree, wonderful event!" I have always been passionate about STEM outreach — Chelsea Saguil

SR, I'm still looking forward to being a part of this wonderful event!" — Chelsea Saguil "My journey with Science Rendezvous began in 2016 after I had completed my first year...during which time I had not made as many meaningful connections as I had hoped for or discovered any organizations that I strongly identified with. However, when I was made "Throughout my undergraduate and graduate degree, I have always been passionate about STEM outreach and science communication. From my participation in leadership positions in numerous science outreach initiatives over the past decade, I can genuinely say that Science Rendezvous (SR) has been the most rewarding experience I have had so far!" — Douglas Chung





CREDIT: Science Rendezvous Western

The 2021 STEAM Big! Award recognizes individuals and groups who make up the coordinating team responsible for creating a truly outstanding Science Rendezvous event. Due to the impact of COVID-19, coordinating teams had to completely change the way they would deliver their events and shift their programming online within a short timeframe. The enormous effort and dedication required to bring such an event to fruition cannot be understated. The coordinating team's vision, creativity and leadership were essential in the development of a successful virtual event that ignited an interest in science, technology, engineering, art, and math (STEAM), in their community and around the world. Science Rendezvous is honoured to have such dedicated individuals and groups share our vision and mission. As a part of a collaborative national model, event coordinators across the country will benefit and grow from these exceptional coordinating teams.

Nominations for this first year were made by the executive branch of Science Rendezvous, and the winner was chosen by the board of directors and members of Science Rendezvous.

For more information about these award winning events and the supporters, sponsors and volunteers who make them all possible, visit sciencerendezvous.ca/hall\_of\_fame





#### FOR EXTRAORDINARY LEADERSHIP AND VISION

## **2021 STEAM BIG AWARD WINNER UNIVERSITY OF TORONTO, ST. GEORGE**

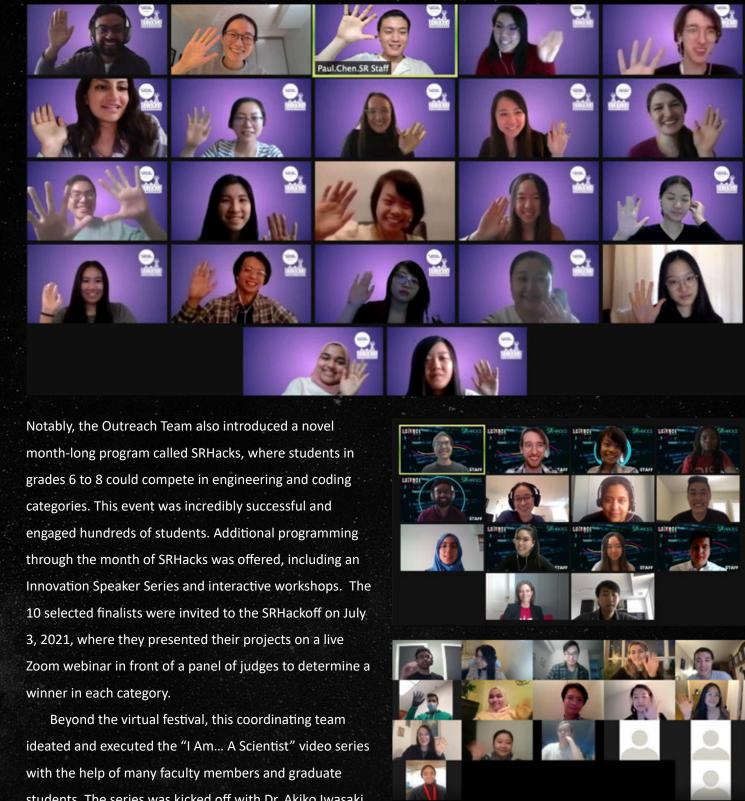


The Science Rendezvous team at the University of Toronto (St. George Campus) embraced the challenge to STEAM Big! in 2021 and went above and beyond to deliver an outstanding and engaging event. Co-Executive Chairs Surath Gomis and Trinh Vo were committed to making this virtual festival bigger and better than ever, incorporating new programming and aiming to engage larger and more diverse audiences. With the help of their strong team, which included 30 of their previous volunteer executive members and over 200 individuals in total, they were able to achieve this goal and reach thousands of virtual attendees!

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Retaining and reimagining their festival booth format, the coordinating team hosted a virtual fair called the Science Rendezvous Show, with 40 total presentations hosted by 23 different university departments, student groups and external foundations. Other notable virtual events included the fan-favourite Science Chase and the Sci-Art Gallery.



students. The series was kicked off with Dr. Akiko Iwasaki, an immunologist from the Yale School of Medicine, and followed with interviews and "day-in-the-life" vlogs from faculty and students across various disciplines. The goal of the series was to make scientists more approachable, showcasing their every-day lives and promoting the idea that science is for everyone. The series received an overwhelmingly positive response and has been continued in 2022, with all videos being accessible on YouTube.

Thank you for being true leaders and a part of the Science Rendezvous community. We are looking forward to seeing what you will come up with in 2022!



## **2021 STEAM GREEN AWARD WINNER UNIVERSITY OF MANITOBA**



The Science Rendezvous Winnipeg team embraced the challenge to STEAM Green in 2021, going above and beyond to promote the Million Tree Project through exciting initiatives and activities. A total of 4857 trees were planted by participants of the Manitoba School Tree Planting Challenge, launched on June 10th, 2021, as part of the Million Tree Project. Science Rendezvous volunteers, university staff and students received hundreds of additional trees, not included in this official count. The coordinating team had to face the challenges associated with COVID-19 restrictions but showed their resourcefulness and resilience by adapting their programming and arranging tree pick-ups for students. In the Fall of 2021, another tree giveaway event took place as part of Science Literacy Week and National Tree Day, resulting in the distribution of an additional 3012 trees!

Over the course of these events, this coordinating team has expanded their outreach from 8 to 17 communities and engaged almost 60 schools. This project's reach extended beyond the city limits, with half of the participating sites being in rural areas. The coordinating team was also able to supply saplings to an arts centre, a local museum, and a

# SIEAM green AMAR

FOR EXTRAORDINARY CONTRIBUTION TO SCIENCE RENDEZVOUS' CANADA WIDE EXPERIMENT

The 2021 STEAM Green Award is Science Rendezvous' first annual award for the Million Tree Project. It recognizes individuals and groups who make up the coordinating team responsible for creating outstanding Million Tree Project activities and events as part of this 10-year Canada-wide experiment. The coordinating team's vision and leadership were essential for developing a Science Rendezvous event for the Million Tree Project that went above and beyond, creating a truly exceptional experience for participants and volunteers.

Coordinating teams were tasked with sparking an interest in science, technology, engineering, art, and math (STEAM) through participation in a national project with the ultimate goal of starting one million conversations about tree, environment and climate sciences as well as providing opportunities to take creative and local action. Science Rendezvous is honoured to have such dedicated individuals and groups share our vision and mission.

Nominations for this first year were made by the executive branch of Science Rendezvous, and the winner was chosen by the board of directors and members of Science Rendezvous.

For more information about these award winning events and the supporters, sponsors and volunteers who make them all possible, visit sciencerendezvous.ca/hall of fame

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First Nations community. As a result of these activities, the Million Tree Project has gained participants in 18 school divisions, representing 47% of the divisions in the province. It should be noted that this coordinating team established important partnerships with local agencies which helped maximize the impact of these events. Manitoba Forestry's Agriculture and Peatlands branch supplied 5000 saplings in addition to delivering trees to several rural schools and planting sites while Trees Winnipeg and Tree Canada helped promote the Million Tree Project through treeplanting events. Other notable connections and partners



who supported these initiatives include CCUNESCO Schools, Science First, Parks Canada, Fort Whyte Alive, Shelmerdines Garden Centre and McNally Robinson Booksellers and Author Ariel Gordon.

Beyond these events, this coordinating team organized virtual talks discussing important topics like climate, ecosystems, and climate change. These talks featured speakers from various disciplines and backgrounds and were moderated by Dr. Brian Mark, Dean, Faculty of Science. As part of Science Rendezvous, this coordinating team joined the Virtual Science Chase event, encouraging participants to tackle STEAM challenges with their friends and families. The outstanding work of the coordinating team and volunteers, in addition to the thousands of students, teachers and citizens involved in these activities at the community level, have made a significant impact to the Million Tree Project.

Thank you for being true leaders and a part of the Science Rendezvous community. We are looking forward to seeing what you will come up with in 2022!

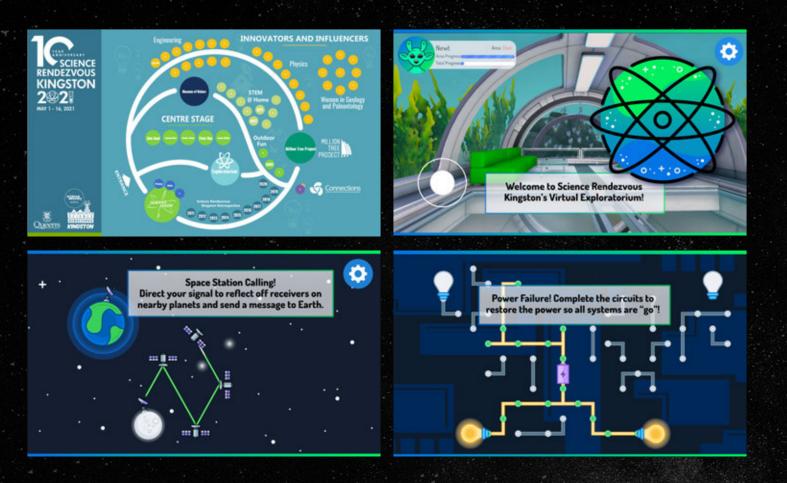
The COVID Creative Award recognizes individuals and groups who make up the coordinating team responsible for creating an outstanding virtual Science Rendezvous experience in spite of the unforeseen and significant challenges brought by COVID-19. Coordinating teams had to completely change the way they would deliver their events and shift their programming online within a short timeframe. The adaptability and commitment required to coordinate and facilitate events remotely during these trying times cannot be understated. The coordinating team's resiliency, creativity and leadership were essential in the development of an enjoyable and original virtual event that celebrated science, technology, engineering, art, and math (STEAM) in their community and around the globe. Science Rendezvous is honoured to have such dedicated individuals and groups share our vision and mission. As a part of a collaborative national model, event coordinators across the country will benefit and grow from these exceptional coordinating teams. Nominations for this first year were made by the executive branch of Science Rendezvous, and the winner was chosen by the board of directors and members of Science Rendezvous.

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# CERTIVE CREATIVE AWARD

## FOR EXTRAORDINARY CREATIVITY AND RESILIENCY

# 2021 COVID CREATIVE AWARD WINNER **QUEEN'S UNIVERSITY**



Queen's Science Rendezvous Kingston embraced the challenge of being COVID Creative in 2021. Delivering an ambitious, multidimensional 16-day web-based program, they logged attendance by some 29,000 people from around the globe! Coordinators Lynda Colgan and Kim Garrett, with the help of hundreds of talented volunteers, showed incredible resilience and creativity, exceeding expectations and capturing the imagination of visitors with their diverse menu of educational STEAM content.

Retaining and reimagining their Science Rendezvous festival format, the coordinating team designed an interactive and digital floor map that allowed visitors to explore the wide range of available activities at their own pace and leisure. They generated a sizable and diverse suite of engaging and inspiring digital resources, including webinars, live Q&A sessions, virtual tours, downloadable activity booklets, interactive jigsaw puzzles, scavenger hunt activities and experiment demonstrations. The options and opportunities for visitors were virtually limitless, with "live" and "on-demand" events and supports available. Other notable virtual events included the fan-favourite Science Chase and a Million Trees Project webinar with author and scientist Lindsey Carmichael.

Beyond their exemplary content, the coordinating team was committed to showcasing diversity in the scientific community. Within their Innovators and Influencers stages, the team highlighted the leading-edge research being

conducted by women scientists and graduate students in order to provide opportunities for youth, and particularly young women, to learn more about the various engineering and physics disciplines. The coordinating team also shone the spotlight on groundbreaking women pioneers in geology, mining and paleontology, who defied the odds to work and study in typically "male" fields and carved a path for others to follow.

Although the coordinating team's outstanding and creative use of technology was evident throughout their programming, their Exploratorium app is worthy of the ultimate "gold star". Comprising two single-player mobile games (or hubs), the Exploratorium app invites people of all ages to explore the fascinating worlds of and people from engineering and physics. The two imaginary, interactive environments in the Exploratorium, Connections City and Space Base, were developed by Sydenham High School students Ben Black and Kye Hallam, in consultation and collaboration with Queen's Engineering Outreach Manager Scott Compeau and Outreach Coordinator Carmen Maertz as well as a team of faculty and graduate students from the Physics and Astronomy Department, led by Assistant Professor Alexander Wright and M.Sc. student Simran Nerval. By providing the opportunity for high school students Ben and Kye to create the app content and game-based challenges, Queen's Science Rendezvous Kingston not only facilitated cross-panel collaboration between the secondary school panel and the university, but achieved one of NSERC's principal goals for Science Rendezvous and Science Odyssey: to mentor, support and encourage youth to pursue interests and develop expertise in science, technology, engineering, and mathematics.

Thank you for being true leaders and a part of the Science Rendezvous community. We are looking forward to seeing what you will come up with in 2022!





CENTRE STAGE PRESENTS

JOHN SMOL Professor and the Canada Research Chair in Environmental Change

> Climate change in the Arctic and our own backyards May 04 | 1 PM

#### CENTRE STAGE PRESENTS

JASVEEN BRAR Manager - Atlantic, Ocean Bridge

Between the Poles: outh Leading Environmental Change May 06 | 1 PM

CENTRE STAGE PRESENTS

292

PETER MAY Research Casting International, Ltd.

Show & Tell and Q&A with Dinosaur Builde Pater May

May 14 |1 PM





#### CENTRE STAGE PRESENTS

CONNOR STONE Physics, Engineering Physics & Astronomy

Live: Queen's Observatory Virtual Planetarium May 12 |1 PM

MAY 1 - 16 SCIENCE RENDEZVOUS KINGSTO

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CIENCE RENDEZVOUS KINGSTON Thank you. 29,000 VISITORS



## **MESSAGE FROM THE CHAIR**

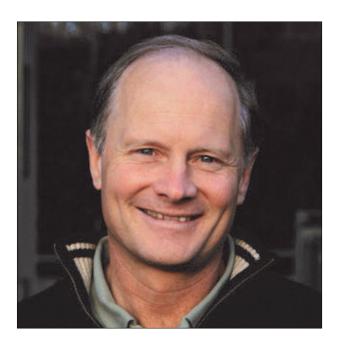
This year marked Science Rendezvous' 15th year! An exciting milestone, not easily achieved in light of the ongoing concerns regarding the COVID-19 pandemic. These past three years have been challenging for us all, and I am so proud of Science Rendezvous (SR) for rising to the challenge. Together with over 25 affiliate partners, SR worked hard to re-imagine science, technology, engineering, and math (STEM) outreach in virtual, and then hybrid environments to continue our mission to create a science literate Canada. SR was able to continue to support and reach the general public with innovative, interactive and engaging programming that was both effective and welcomed by participants, in spite of significant virtual event fatigue.

We established new and innovative methods of delivering

programs in safe, fun, and interactive ways that ensured our volunteers were engaged and supported so that they could maximize their creative energy and enjoy their experience with SR. We nurtured our diverse teams to provide mentorship opportunities, establish new collaborations and committees, and provide a much needed sense of community during long periods of physical isolation from one another.

This annual report demonstrates Science Rendezvous' outstanding programming results despite pandemic conditions. Creative virtual programming including the development of an entirely virtual Science Chase, Hack-a-thon, STEM-Expo, and the new Canada Wide Experiment — the Million Tree Project — were able to provide innovative learning opportunities attracting nearly as many participants as in pre-COVID days, while staying true to our engaging and interactive delivery methods. In-person events in 2022, saw attendance nearly double from 2019 numbers at event sites like Western University: demonstrating a strong desire from the public to continue to enjoy SR for years to come. Lesson plans and virtual education sessions were provided to teachers and parents who had been challenged with unprecedented online learning. It is extremely gratifying to report that we had over 50,000 attendees, which must be a record for a hybrid event.

Science Rendezvous is committed to grow as an organization dedicated to equity, diversity, and inclusion. In this regard, we explored innovative programs to include traditional knowledge from First Nations, and novel partnerships and projects to reach more underrepresented populations. Our future promises to be exciting as we learn from each





other in the open spirit of sharing our understandings. SR will continue to learn, innovate, and be proactive in creating the best learning environment for all. None of this would be possible without the most passionate STEM enthusiasts who tirelessly dedicate their time to inspire with the wonders of science — to make science a Canadian value. We are privileged to have you as part of the SR team. You are the foundation of SR. My great thanks all of our dedicated partners and volunteers. We could not do it without you and the energy you bring to the event.

Finally let me close by putting an exclamation point on the role Science Rendezvous is having in creating a culture transformation in Canada. In the photo above, I am with my granddaughter Madison McDermott literally getting a blast out of science at Western's SR event, learning about the science of colour in fireworks ... and magic. I could not be more proud of SR for making this dream come true. We are helping light the way for our next generation, to make us all wiser and more appreciative of nature. In Carl Sagan's words, "Science is a Candle in the Darkness." May it light your path in life and brighten your view of the world.

Joyne Mil



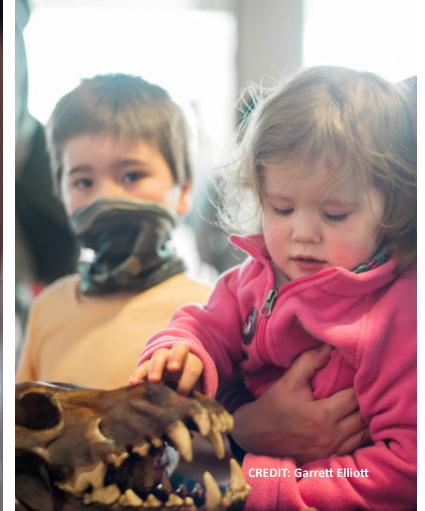
**R. J. DWAYNE MILLER** FRSC (Fellow of the Royal Society of Canada)

Professor of Chemistry and Physics, Distinguished Faculty Research Chair in Chemical and Biological Physics, University Professor University of Toronto

Chair Science Rendezvous







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**CREDIT: Science Rendezvous Western** 

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**CREDIT: Science Rendezvous Western** 

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**CREDIT: Science Rendezvous Western** 

# **AFFILIATE SITES**

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Science Rendezvous supports the efforts hundreds of partners with 35 affiliate sites made up of Canada's top research institutions, industry and community partners. These affiliates share the belief that our voice is strongest together. The collaborative effort of sharing best practices, logistical coordination, marketing efforts and program development ensures that Science Rendezvous events continue to improve and reach farther into the general public each year. Together we are a true Science Rendezvous!

Aurora Research Institute — Fort Smith Aurora Research Institute — Inuvik **Bridgepoint Active Healthcare Canadian Association for Girls in Science** College of the North Atlantic, Labrador West **Durham College** Bridgepoint Active Healthcare Indus Space **Kwantlen Polytechnic University** Let's Talk Science University of Manitoba **Main Street Markham** McMaster University **Memorial University of Newfoundland** Mississauga Library **OCAD University Ocean Tracking Network Ontario Tech University** (FKA: University of Ontario Institute of Technology) Queen's University **Simon Fraser University** Sinai Health System **Toronto Metropolitan University** (FKA: Ryerson University) The Toronto Zoo **University Health Network** University of Alberta — Future Energy Systems **University of British Columbia University of Guelph Humber** University of Toronto — St. George University of Toronto — Mississauga University of Toronto — Scarborough University of Victoria University of Winnipeg Western University York University

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