

ASLA's 4th Conference for Science Teachers (November 22, 2025)

Building Tomorrow's Scientists: ASLA's Outreach Conference for Educators

Enthusiastic science teachers from seven regional centres for education and private schools across Nova Scotia attended the highly anticipated fourth **Conference for Science Teachers** by the **Atlantic Science Links Association (ASLA)**, braving the rain on Saturday, in the third week of November.

The Atlantic Science Links Association (ASLA)

ASLA is a charitable science outreach group providing **free events and resources**, including classroom visits from scientists, STEM mentorship, science contests, and teacher conferences to support educators and inspire stronger scientific understanding in Nova Scotia students. Located at the Life Sciences Centre and funded by the Faculty of Science at Dalhousie University and Engineers Nova Scotia, its [science contests for students](#) and [science conferences for teachers](#) are popular and invaluable among the many services offered by the association. ASLA recently launched a [Women in STEM Mentorship Network](#) to introduce high school self-identifying girls to women in science industry and academia.

Planning Around the Labour Disruption

After successfully conducting three similar conferences in 2017, 2018, and 2022, ASLA planned to hold the fourth one in August 2025, for which 51 teachers registered from across Nova Scotia. Unfortunately, the event had to be canceled due to the lockout. However, many teachers expressed their excitement about attending the conference, so the valued event was postponed. Fortunately, ASLA's dedicated volunteers and lab hosts were able to accommodate the postponement, and the conference took place three months later on **November 22nd, 2025**.



ASLA Conference Organization Committee waiting to welcome teachers at the Conference registration desk (left to right: Arunika Gunawardena, ASLA president; Valerie Schagen, ASLA Administration Assistant; and Rajesh Rajaselvam, ASLA Executive Director).

Welcoming Teachers to the Conference

The free, full-day event invites science teachers from across Nova Scotia to Dalhousie University, where they participate in **curriculum-related, hands-on labs**, facilitated by Dalhousie scientists. The goal of the conference is to transfer practical, classroom-ready science content and techniques directly to teachers, strengthening science education at the grassroots level. All aspects of the event were free of charge for teachers.

The one-day conference began at 9:00 am with a **land acknowledgement** from **ASLA President, Arunika Gunawardena**, Professor, Department of Biology, Dalhousie University. Arunika then **welcomed teachers**, introduced the lab hosts, organizers, and volunteers, and gave a brief introduction to ASLA and their outreach activities in the province, emphasizing the free resources and events available to support teachers and students.



Arunika Gunawardena welcoming teachers to the conference

Next, a welcome speech was given by **Charles Macdonald, Dalhousie University Dean of Faculty of Science**. Dr. Macdonald inspired teachers with a recap of recent accomplishments in the faculty of science, and reminded everyone about the importance and power of science outreach.



Charles Macdonald, the Dean of the Faculty of Science delivering a welcome speech to conference attendees.

The Conference lab schedule consisted of two labs in the morning, and two labs in the afternoon. Teachers were split into two groups and sent to the two morning labs, then after a short break, they switched to the other lab. The same format was followed with two more labs after lunch.

Morning Labs

The first lab was **Minerals and Crystal Structures: Understanding and Identifying Mineral and Crystal Properties**, presented by **James Brenan**, Professor and Associate Dean (Research), Department of Earth and Environmental Sciences, Dalhousie University, assisted by **Peteris Rozenbaks**, Ph.D student, Department of Earth and Environmental Sciences, Dalhousie University. Teachers were led through a series of experiments to identify rocks and minerals according to various chemical properties. This included basic flame photometry, hardness tests, and more. Teachers were provided with a testing kit of materials to bring back to their classrooms. A participating teacher remarked that “[James] delivered an excellent presentation on minerals and crystal structures. His ability to break down complex terms into clear, comprehensible explanations was truly impressive. We enjoyed performing several experiments (activities), and he addressed all of our questions thoroughly.”



James Brenan delivering a lab on rocks and minerals. Participating teachers examining their samples.

After a coffee/tea/snack break, the teachers joined **Boris Worm**, Professor, Department of Biology, Dalhousie University, for the other morning lab, **Ocean School: Exploring the Ocean through Immersive Multimedia**. Teachers explored “Ocean School,” a free, bilingual, online platform with curriculum focused content for Nova Scotian teachers. The website contains videos, activities, and modules, built to improve ocean literacy, environmental awareness, critical thinking, and science appreciation in students. Teachers reported that the Ocean School programming was especially helpful to curriculum and predicted high ease of classroom implementation. One teacher remarked that “ocean school was very inspiring!”



Boris Worm, leading a discussion about ocean school with teachers

Science Fair Presentation by Julia Sarty

Vivid conversations about the challenges and opportunities faced by grade-school teachers filled the break room during the conference intermission. Lunch was provided, free of charge to teachers. During lunch, **Julia Sarty**, Halifax Science-Technology Expo (HSTE) Chief Judge, delivered a presentation about **“Making Science Fairs Work for You.”** Julia provided step-by-step instructions on practical ways to get students to science fairs, increasing teacher awareness of resources available. Emphasis was placed on increasing science fair participation from rural and remote schools, and schools with fewer resources. Teachers called the conversation “informative,” “encouraging,” and “very helpful.” One teacher shared that they “had no idea about some of these helpful resources!”



Julia Sarty giving a science fair presentation to teachers

Afternoon Labs

After lunch, teachers headed to **Meet your Neighbours: Plants in and Around the Schoolyard**, by **Lara Gibson**, University Teaching Fellow, Department of Biology, Dalhousie University. The lab included identifying plants by sorting live and preserved samples into the major lineages (bryophytes, seedless vascular plants, gymnosperms, and angiosperms), and an outdoor component, where teachers sampled the local area for biodiversity by measuring the richness and evenness of plants in quadrats around the schoolyard. One participating teacher “enjoyed the hands-on activity in the plant session, and cross-curricula connections.”



Lara Gibson teaching science teachers about local plants outside Dalhousie University

Teachers warmed up with coffee/tea, then headed to the next lab: **Peeling Back the Code: Exploring DNA from Fruit**, led by **James Kho**, post-doc researcher, Department of Biology, Dalhousie University, and **Tiara Mulder**, Ph.D student, Department of Biology, Dalhousie University. Teachers extracted DNA from blueberries, in a simple yet effective experiment. The lab instructors provided several suggestions to substitute materials for common household items, and modifications for any grade level. A participating teacher called the lab “well laid out and accessible,” mentioning that they “like how [they] can adapt this for grade 7 and 8.”



James Kho and Tiara Mulder helping teachers perform a DNA extraction from blueberries

Closing Ceremony

Closing remarks were given by **Patrice Côté**, Assistant Professor and Chair, Department of Biology, Dalhousie University, who described ASLA history and the importance of outreach activities.



Patrice Côté delivering closing remarks

A final vote of thanks was delivered by **ASLA's Executive Director, Rajesh Rajaselvam**, University Teaching Fellow, Department of Biology, Dalhousie University. Rajesh thanked all of the teachers, lab hosts, volunteers (Cora Mitchell, Abi Dixon, and Gwendolynn van Veen), and funding from Dalhousie Faculty of Science and Engineers Nova Scotia. Additional special thanks was given to Chris Macneil, Denise Sullivan, Amber Peck, and other members of the Dalhousie biology department who helped organize the conference.



Rajesh Rajaselvam closing the conference with a vote of thanks

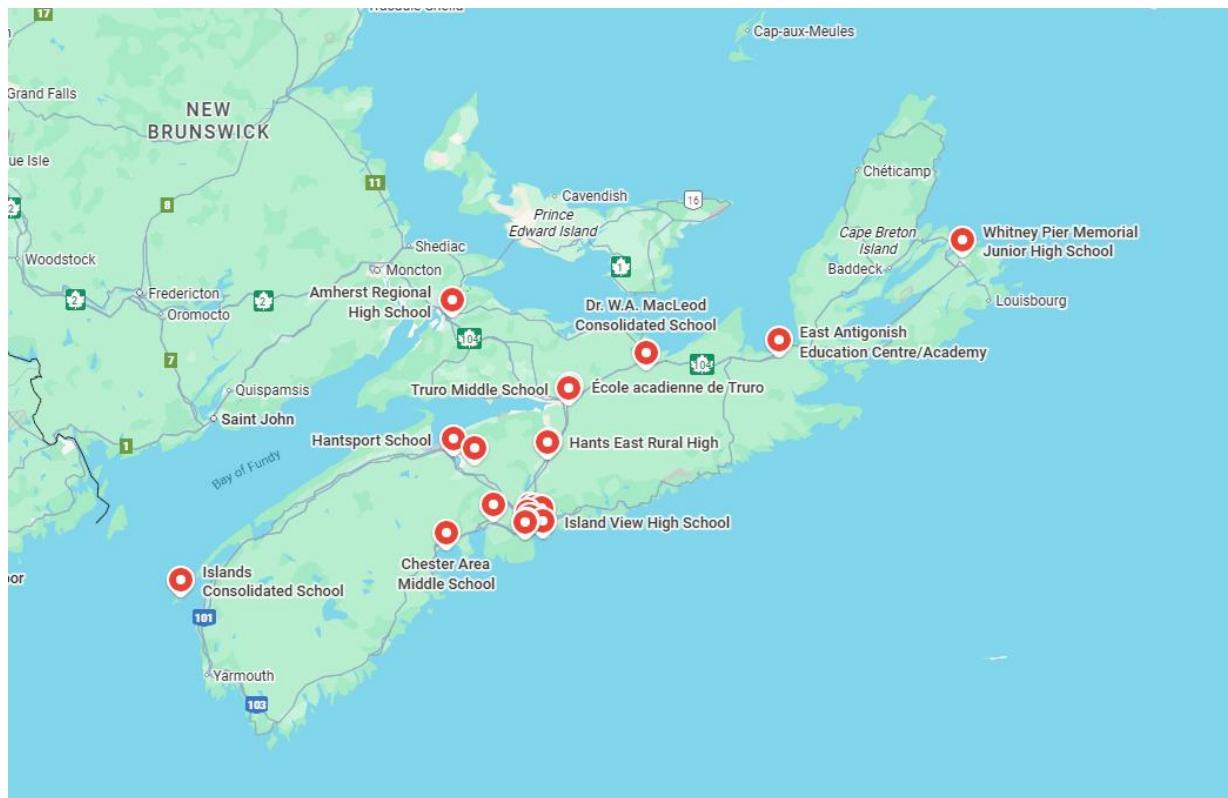
To finish the day, teachers were given certificates to commemorate the professional development element of the conference.



Group photo featuring conference attendees, organizers, lab hosts, and volunteers

Conference Attendance

22 teachers attended the conference. The conference was planned with special relevance for grades 7, 8, and 9, but labs offered modifications to suit all grade levels. Teachers from **grades 3 to 12** attended the conference. Teachers represented disciplines from **math** to **geography**, and of course **science**, including **biology** and **chemistry**. Teachers came from far and wide across Nova Scotia, including **rural**, **remote** schools and **inner-city** schools, **public** and **private** schools. 7 teachers came from Halifax Regional Centre for Education (**HRCE**), 3 from Chignecto Central Regional Centre for Education (**CCRCE**), 3 from Conseil Scolaire Acadien Provincial (**CSAP**), 2 from Annapolis Valley Regional Centre for Education (**AVRCE**), 2 from Tri-County Regional Centre for Education (**TCRCE**), 1 from Strait Regional Centre for Education (**SRCE**), 1 from Cape Breton–Victoria Regional Centre for Education (**CBVRCE**), and 2 from **Private/Independent** schools.



Map of all schools represented in teacher attendance

Selected Teacher Feedback

“All of [the labs] were clear and enjoyable. Most of them were very relevant to the grades and classes I teach. The instructors were knowledgeable, passionate, and engaging, and desired to make their information and activities tied to curricula”

-Madeleine Bush, Bay View High School

“All four labs were engaging and inspiring. Loved how hands-on and applicable each lab was. I will definitely be using these resources in my teaching.”

– Kurt Hadley, École Mer et Monde

“Feeling very motivated and inspired! Thank you so much for such an amazing day!”

– Lindsay Bradshaw, École Mer et Monde

“Thank you for an amazing conference! I will definitely be returning”. – Kurt Hadley, École Mer et Monde

2025 conference organizers Arunika Gunawardena, Rajesh Rajeselvam, and Valerie Schagen would like to thank our dedicated volunteers, lab hosts, board members, funders, and all of the teachers who attended!