

about seed2STEM summer research program for Indigenous youth



STEM fields are critical for research advancements and Canada's economic success. There is high demand for jobs with STEM expertise, but Indigenous people remain under-represented in skilled, well-paid STEM jobs. The 2021 Census reports that nearly 12% of non-Indigenous Canadians hold post-secondary degrees in STEM fields, compared to ~4% of Indigenous individuals.¹ Empowering Indigenous youth through STEM education is crucial to promote equity in scientific fields and increase diverse perspectives in innovation. **seed2STEM**, started by the ICORD Research Centre at the University of British Columbia (UBC) in 2018, works to address this by providing Indigenous high school students with paid research experience in STEM labs in a fun and supportive environment.

how seed2STEM works

In seed2STEM, university labs host Indigenous high school students in Grade 9-12 for 6-week, **paid summer research internships** on topics including neuroscience, engineering, chemistry, biology, medicine, math, physics, and other areas of STEM. **Students are paid minimum wage to work 25 hours/week.** In addition to their research projects, students take part in **weekly research-focused group activities**, learn

Since 2018, **seed2STEM** has successfully engaged 195 Indigenous students in research with 152 faculty members in 44+ departments at UBC Vancouver, UBC Okanagan, Simon Fraser University, and multiple hospital sites. Many students and faculty participate for multiple years.

1. Statistics Canada. Table 98-10-0416-01 Major field of study (STEM and BHASE, summary) by Indigenous identity: Canada, provinces and territories, census metropolitan areas and census agglomerations with parts. <https://doi.org/10.25318/9810041601-eng>

from guest speakers (STEM professionals, Indigenous community members), and visit scientific and cultural places of interest. **Alumni** who go on to undergraduate post-secondary studies at any institution are invited to return for **4-month paid research assistantships**, and also act as mentors to high school students. Students are supervised by a diverse group of faculty, staff, graduate students and postdoctoral fellows who, in turn, gain leadership, communication, and supervisory skills, and an understanding of some of the challenges facing Indigenous students in academia. At the end of the program, students present their research to the STEM community, friends, family and teachers at a **poster celebration symposium**.

To address economic disparities that may hinder participation, we provide **stipends** and **wraparound supports** (transit passes, loaner laptops, meals, youth support workers), as well as **travel bursaries** for students from remote communities.

All program supervisors and host lab members are encouraged to take the British Columbia Institute of Technology's online course on Indigenous Awareness, emphasizing foundational knowledge for reconciliation. We also provide tailored **training on cultural safety** and strategies to support Indigenous high school students in a research environment in partnership with the Indigenous Initiatives team in the UBC Centre for Teaching and Learning Technology.

seed2STEM is guided by an **advisory panel** including former students of the program, parents, a board member of the Verna J. Kirkness Education Foundation, an Indigenous Outreach Worker from Surrey School District, and Indigenous professionals.

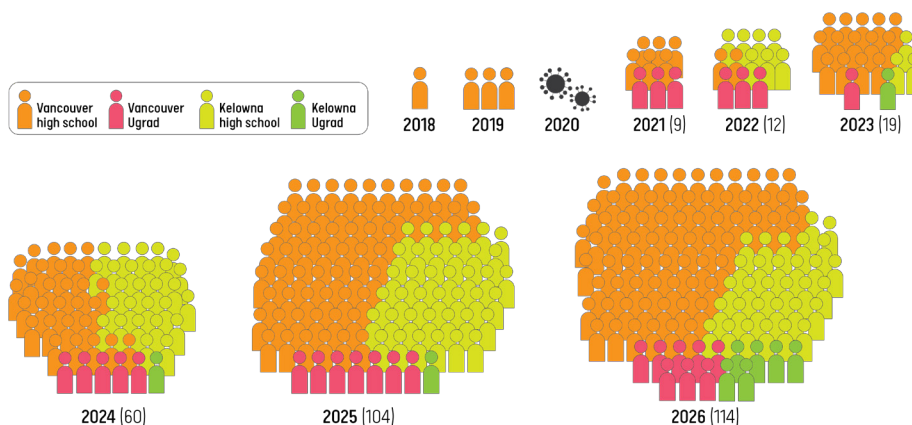
We work closely with **Indigenous support and outreach workers in school districts** in Metro Vancouver and Kelowna, to support students before, during, and after their placements, and incorporate feedback from students and their parents/guardians in all the program planning for each following year.



Salary + wraparound supports (2026):
\$3,250 / high school student (6 weeks)
\$12,500 / undergraduate (4 months)
 All costs are covered by seed2STEM and/or host labs.

seed2STEM growth

From one participant in 2018, the program has grown to 104 in 2025. The program expanded to UBC-Okanagan in 2022 and SFU in 2025. Since 2023, we have offered travel and homestay support for students from remote communities.



making a difference for Indigenous youth in STEM

Since its inception, the seed2STEM program has been making a positive impact for Indigenous youth. From developing transferable skills in research, communication, teamwork, and organization, to forming

professional and supportive connections with undergraduate and graduate students, postdoctoral fellows, staff and faculty at UBC, participants are gaining valuable experiences through this meaningful program.

seed2STEM fosters a culture of inclusion and respect for Indigenous knowledge, values and perspectives in health and STEM research and education. Program participants are connected to resources such as support services for Indigenous students, academic guidance, career counselling, information about financial assistance, and social and cultural activities.

Results from our most recent end-of-program survey indicated that students learned new skills and techniques that they can use in their future studies. They felt included and supported in the labs and developed more interest in STEM fields including clinical research, engineering, and laboratory research. Students also reported increased confidence in their ability to complete tasks independently and work as part of a research team.

empowering Indigenous youth to thrive

The seed2STEM program is growing each year. This is encouraging, and we want to support as many applicants as possible. As the program grows, we are receiving feedback from student participants, parents, and supervisors about ways to make the program even more inclusive, supportive, and accessible for Indigenous youth.

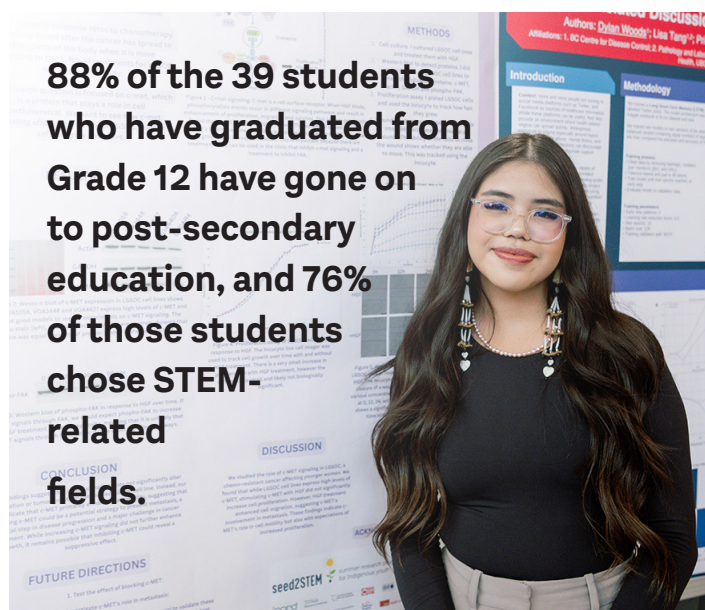
Our goal is to empower even more Indigenous youth in the future by offering more travel bursaries for students based in rural communities. We have already seen an increase in interest beyond Vancouver and Kelowna-based students. Since 2023, nine students have joined the program from remote BC communities. We know there are many more students who would love to take advantage of this introduction into the world of STEM research.

Improving Indigenous participation and leadership in STEM research and education is vital and guided by UBC's Indigenous Strategic Action Plan. The Truth and Reconciliation Commission of Canada Calls to Action and the United Nations Declaration on the Rights of Indigenous Peoples both call for educational reforms to ensure Indigenous peoples are accepted as equals in all fields, including STEM. **seed2STEM is working to address these calls for action by directly developing a pipeline that supports, inspires and empowers Indigenous high school students to pursue STEM careers.**

looking forward

While our main goal is to introduce Indigenous youth to STEM fields in a fun and supportive environment, seed2STEM is also an effective recruitment avenue for UBC. Fifteen program alumni are now attending UBC. Many students have commented that they chose UBC *because they had such a positive experience in seed2STEM.*

We have plans to expand to other parts of BC in partnership with the BC Cancer Research Institute, and there is interest from institutions in other parts of Canada in starting seed2STEM satellite programs. We have developed a toolkit to help supervisors better support students, and have the expertise to support the development of new programs in other locations.



"I came from over 1,000 km away and I definitely do not regret it! This is one of my biggest accomplishments. **Being a researcher is my long-term goal.**"

"I liked having access to a lot of **knowledge & resources** in an environment where I wasn't being graded"

"I'm now **certain** I want to pursue a **career in STEM**"

"I used to believe that a **job in science was past my abilities**, but this program inspired me to **think about science as a career.**"

"I actually **really like chemistry**"

"I got to **immerse myself** in an environment of collaboration and **learned** a lot of **things** that most **high school students don't** get to **experience**"



Winner, City of Vancouver Award of Excellence
Leadership in Reconciliation, 2025

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