

# seed2STEM



summer research program  
for Indigenous youth

Are you a high school student who identifies as Indigenous?

Are you interested in studying science and doing research?

seed2STEM offers Indigenous high school students from grades 9 to 12 paid, six-week summer research internships on a variety of STEM (science, technology, engineering, math) topics. We hope this research experience will encourage you to continue exploring the sciences and consider pursuing further studies or a career in science, medicine, engineering, and math (STEM).

**Program start date:** July 7, 2025 • **End date:** August 15, 2025.

In addition, a pre-program workshop will take place in June.

**Earn \$2,610+** (25 hours/week at BC minimum wage\*), with transit passes for July & August, snacks, and some lunches provided.

*\*currently \$17.40/hour but set to increase in June*

**Location of projects:** Vancouver or Kelowna.

**APPLICATION DEADLINE: March 31, 2025**

Scan the QR code or visit [www.icord.org/seed2STEM](http://www.icord.org/seed2STEM) for more information and an **online version of this application form!**



## Part I: Personal Information

First Name \_\_\_\_\_

Last Name \_\_\_\_\_

Preferred first name (if different) \_\_\_\_\_

Email address \_\_\_\_\_

Phone Number \_\_\_\_\_

Current Grade:     \_\_\_ 9             \_\_\_ 10             \_\_\_ 11             \_\_\_ 12

Full name of your school \_\_\_\_\_

Name of Indigenous support teacher \_\_\_\_\_

Indigenous support teacher's email address \_\_\_\_\_

Indigenous support teacher's phone number \_\_\_\_\_

For which site do you wish to be considered?

UBC Vancouver

UBC Okanagan

We welcome diversity of all kinds. To ensure we can provide the best possible support during the program, please let us know if you have any physical or mental health concerns, allergies, neurodiversity, or other needs we should be aware of. This important information will be kept confidential and only used to support your participation in the program.

\_\_\_\_\_

How do you self-identify as an Indigenous person? Please choose all applicable. This information is for aggregate program reporting purposes only. Personal information will be kept confidential.

First Nations

Inuit

Métis

We would greatly appreciate it if you could also share which Indigenous community (or communities) you come from.

\_\_\_\_\_

May we share your community information?

Yes, within the program only (for example, a list of communities represented at seed2STEM 2025 might be shared on the first day)

Yes, within the program and in external reports (for example, a report to the university could include a map showing community representation within seed2STEM)

No, I prefer to keep this information confidential

## Part II: Guardian Information

Please complete the required information below for the person who is legally responsible for you while you are a minor. This could be a parent, relative over 19 years of age, or another person.

Guardian First and Last Names \_\_\_\_\_

Guardian's Email \_\_\_\_\_

Guardian's phone number \_\_\_\_\_

Guardian's relationship to you \_\_\_\_\_

## Part III: Your interests

There are a lot of questions in this section. We're not concerned about your writing skills, we just want to know a bit more about you. If you prefer to answer over a zoom call, let us know and we'll set one up ([summer@icord.org](mailto:summer@icord.org) / 604-675-8830)

What is your favourite subject in school? Why?

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Have you taken any science courses in school?

\_\_\_ No

\_\_\_ Yes (if yes, please list them) \_\_\_\_\_

What do you like to do for fun? What are your hobbies?

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

To help us match you with a project that aligns with your interests, please rank the following STEM fields from most to least interesting. If you are not sure yet (which is totally fine), please rank the option “Not sure yet” as #1. You don’t have to rank all 26 choices, but please give us your top 10 at minimum. We will do our best to match you to a project within your top 5-6 choices, although this depends on the total number of applicants and projects we receive.

- **ASTROPHYSICS:** Astrophysics is the science of stars, planets, and everything in the universe. Astrophysicists study light from distant galaxies, cosmic explosions, and the origin of the universe and what it is made of using powerful telescopes and mathematical models.
- **BIOLOGY:** Biology is the science of life! It is about understanding living things—from tiny bacteria to large ecosystems on Earth. Biologists study how plants grow, how animals adapt and how cells work. They make breakthroughs in medicine, genetics and conservation, helping us understand things like development, disease, environmental changes, and biodiversity.
- **BIOMEDICAL ENGINEERING:** This field combines biology, medicine, and engineering to solve medical challenges and improve healthcare. Biomedical engineers create incredible medical devices, study biomechanics to prevent and treat injuries and process real and simulation data to understand the human body and develop technologies that can promote health.
- **BOTANY:** Did you know plants hold secrets to fighting climate change, curing diseases, and feeding the world? Botany is the science of plants—how they grow, adapt, and help ecosystems thrive. If you love nature and are curious about the green world around you, this is your field.
- **CHEMICAL & BIOLOGICAL ENGINEERING:** Imagine creating the next eco-friendly fuel, inventing life-saving medicines, or designing processes that turn raw materials into everyday products! Chemical and biological engineers combine chemistry, biology, and creativity to solve real-world problems!
- **CHEMISTRY:** Chemistry is the science of what things are made of and how they change. It explores how substances interact, combine, and transform at a molecular level. It is vital in developing new materials, creating medicines, making eco-friendly fuels, and even designing the flavours in our food!
- **CIVIL ENGINEERING:** Civil engineering is all about building the world around us! Civil engineers design and construct the structures we rely on every day—like bridges, roads, skyscrapers, and even water systems. They’re the masterminds behind making cities safe, efficient, and ready for the future.
- **CLINICAL MEDICINE:** Clinical medicine involves not only treating patients but also conducting research to better understand diseases, treatments, and health outcomes. This field bridges patient care with scientific investigation, as healthcare providers test new therapies, evaluate treatment responses, and explore innovative methods to improve health.
- **EARTH, OCEAN & ATMOSPHERIC SCIENCE:** Explore the mysteries of Earth, from the depths of the oceans to the skies above! Scientists in this field study things like hurricanes, volcanoes, climate change, and even tsunamis. If you’re fascinated by our planet and want to help protect it, this is your chance to make waves—literally!
- **ELECTRICAL & COMPUTER ENGINEERING:** The magic behind everything digital, electric, and connected! This field creates the brains and energy for modern life—think of the smartphones in our pockets, the Wi-Fi connecting us, electric cars, and even futuristic tech like artificial intelligence and self-driving cars. Electrical and computer engineering experts design circuits, build software, and develop the hardware that powers our gadgets, keeps data flowing and solves real-world challenges with technology.
- **KINESIOLOGY:** Kinesiology is the science of human movement. It combines anatomy, biomechanics, and physiology to understand how our muscles, bones, and joints work together to perform actions, from everyday tasks to athletic feats. Kinesiologists work on improving strength,

flexibility, and balance while also helping prevent injuries and aid in rehabilitation.

----- **MATERIALS ENGINEERING:** Material engineering is all about discovering, designing, and improving materials to make them stronger, lighter, or more durable. From creating super-lightweight metals for airplanes to designing materials that can withstand extreme temperatures in space or crafting flexible, high-tech fabrics for sports gear. Material engineers work with everything from metals and plastics to ceramics and nanomaterials, finding new ways to make the world tougher, safer, and even more sustainable.

----- **MATHEMATICS & STATISTICS:** Math and stats are like superpowers for understanding the world! Statisticians analyze data to uncover patterns and make predictions—think of forecasting the weather, improving sports strategies, or studying how diseases spread. Mathematicians explore big ideas like infinity, symmetry, and how the universe works. From designing video games to figuring out how to land a spacecraft on Mars, this field is full of exciting challenges for people who enjoy solving puzzles, finding connections, and using numbers to explain real-world problems!

----- **MECHANICAL ENGINEERING:** Focus on designing and building machines that help improve our world. From cars, planes, and robots to complex manufacturing systems, mechanical engineers create things that move, fly, spin, and help people, using math, physics, and creativity!

----- **MICROBIOLOGY & IMMUNOLOGY:** Step into the invisible world of microbes! Microbiologists and immunologists explore tiny organisms—like bacteria and viruses—that can heal, harm, or even change the world. Whether it's creating vaccines or uncovering how our immune system defends us, this field is full of exciting discoveries.

----- **MINING ENGINEERING:** Ever wonder how we get the metals for your phone or the materials to build skyscrapers? Mining engineers make it happen! They figure out how to safely and sustainably extract resources from the Earth. Whether you're into geology, technology, or protecting the environment, this field is an adventure beneath the surface.

----- **NEUROLOGY:** Neurology is the branch of medical science that focuses on the brain, spinal cord and the entire nervous system. It studies the complex wiring of our nervous system and tries to understand how our brains control our behaviours and body functions. It is instrumental in developing treatment for conditions like epilepsy, stroke, Alzheimer's Disease, multiple sclerosis and spinal cord injury.

----- **ONCOLOGY:** Oncology is the branch of medical science dedicated to studying, diagnosing, and treating cancer. Oncologists work to understand how cancer develops, spreads, and affects the body, aiming to find effective treatments and, ultimately, cures.

----- **PATHOLOGY & LABORATORY MEDICINE:** Pathology and laboratory medicine are the sciences of diagnosing and understanding diseases through the examination and testing of tissues, cells, and bodily fluids. These fields provide critical insights that guide patient diagnosis, treatment, and disease prevention.

----- **PHYSICS:** Physics is about figuring out the rules of the universe. It explains how things move and interact with each other. Physicists study everything from the smallest particles to massive forces like gravity and electromagnetism and develop these concepts for use in the creation of amazing technologies like lasers, MRI, and other medical imaging tools.

----- **PUBLIC HEALTH:** Public health includes studies and research to protect and improve the health of communities and populations. It focuses on preventing disease, promoting wellness, and creating healthy environments. Public health professionals work on issues such as managing infectious diseases, improving access to healthcare, promoting healthy lifestyles, and responding to emergencies.

----- **PSYCHOLOGY:** Psychology is the science of understanding the mind and behaviour. It explores how people think, feel and act the way they do. Psychologists study everything from emotions and decision-making to how we learn, remember, and interact with others. Psychology research helps

us understand mental health, improve learning methods, and develop programs to support people through life's challenges.

----- **RADIOLOGY:** Radiology focuses on developing and refining imaging techniques to improve the diagnosis, monitoring, and treatment of diseases. It explores advanced technologies like MRI and CT scans to create clearer, more detailed images and to detect conditions earlier and more accurately.

----- **VISUAL ARTS:** Do you like to express yourself creatively? Visual arts offer unique ways to interpret and communicate ideas through different forms of creative design such as painting, drawing, and digital media. It is perfect for students who enjoy artistic activities and are curious about how arts can intersect with STEM. By blending creativity with STEM, visual arts can help illustrate complex concepts, bridge diverse perspectives, and inspire innovative solutions. If you are passionate about visual arts and want to explore how they can connect with STEM to tell compelling stories and engage audiences in new ways, this category is for you.

----- **ZOOLOGY:** Love animals? Zoology is the science of studying creatures big and small—how they live, survive, and interact. Whether it's protecting endangered species or understanding animal behaviours and anatomy, zoology is perfect for anyone who's ever been amazed by the animal kingdom.

----- Not sure yet.

If you are interested in a specific STEM field not included above, please list it here:

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## Part IV: Research & Work Style

Please rank your preferred research style below, with 1 being the most favourable and 6 the least favourable. You can also choose "No Preference" by ranking it first (totally fine).

----- **Data Analytics and Programming:** Imagine being a detective, but for data! In this type of research, you use computers to solve mysteries—collecting, analyzing, and turning data into cool insights, or writing code to build a model and running simulations. If you love working with numbers, coding, and figuring out complex puzzles, this is where you become the Sherlock Holmes of science.

----- **Literature research / Knowledge translation:** Think about piecing together a puzzle from scattered clues in science! In a literature review, you will dive deep into research articles, books, and studies and read, compare, and synthesize complex information into clear and meaningful insights. Knowledge translation is about making those insights accessible to a wider audience, ensuring that the valuable findings are communicated in ways that can inform practice, policy, or future research. You may uncover what has been discovered so far, highlight gaps, and set the stage for future research. If you enjoy reading, writing, and building narratives from facts, this is where you become the storyteller of science.

----- **Participant-based research:** This is science with a human touch! Here, you get to interact with patients or volunteers to learn about information that is critical to research topics. You might conduct interviews, gather data, and make a difference by assisting the participants. Perfect if you like connecting with others and making an impact!

----- **Engineering (hands-on) research:** This is all about getting your hands dirty (in the best way!). Here, you'll design, build, and test everything from gadgets to machines. It's where you put theory into practice—working with tools, experimenting with materials, and testing your creations to see how they perform. If you love hands-on work, building prototypes, and exploring how different materials and designs can come to life, this is the place for you.

- **Wet lab research:** In a wet lab, you will be working with samples or specimens: mixing chemicals, experimenting with cells, or working with animals. You might be studying how cells react, testing new treatments, or making solutions to observe chemical reactions. If you're curious about living systems and love getting hands-on with experiments, the wet lab is for you.
- **Creative Exploration:** Engaging in projects that combine creativity and STEM, such as visualizing scientific concepts through painting, drawing, or digital media. This option is perfect for students who enjoy expressing ideas artistically while exploring innovative approaches to research and problem-solving.
- **No Preference.**

Some research projects may involve animals (for example studying animal behaviour, or operations on animals). Are you comfortable with animal research?

\_\_\_ Yes                      \_\_\_ No

\_\_\_ It depends (please explain) \_\_\_\_\_

Please indicate which statement describes your work style the best:

- \_\_\_ **Solo scientist:** You prefer working independently, focusing on your project by yourself to dive deep into your own research ideas.
- \_\_\_ **Team player:** You like working on a project with a small group of 2-3 students, collaborating, sharing ideas, and tackling challenges together.
- \_\_\_ **Independent Researcher in a Team:** You prefer having your own project but enjoy being part of a larger team, where you can connect with other students, share progress, and support each other when needed.
- \_\_\_ **Flexible Approach:** You're open to any kind of research setting—whether it's solo work, a small group, or something in between.

Regardless of the research style you choose, you will have the opportunity to design a research poster to showcase your findings at the end of the program. You'll also engage in some scientific writing to help communicate your work clearly and effectively.

In the sections above, you ranked your preferences for STEM fields and research/work styles. While we will make every effort to match you with your top choices, please be aware that placements depend on the availability of projects and lab capacities. We cannot guarantee that your preferences will be met, but we are committed to providing you with a meaningful and enriching research experience in the program.

**Part V: Previous work experience, availability, and future plans**

Have you had a job before?

\_\_\_ No

\_\_\_ Yes (if yes, what did you do?) \_\_\_\_\_

Are you available to work 25 hours a week between July 7 and August 15?

\_\_\_ Yes

\_\_\_ No

Sometimes you might need to start early or stay late to work on a time-sensitive experiment. Do you have any other commitments in the summer that might make this a problem?

\_\_\_ No

\_\_\_ Yes (if yes, when and what are they)? \_\_\_\_\_

What are your future plans? What careers excite you?

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

What do you hope to learn or get out of the experience of working in a research lab for the summer?

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\_\_\_\_\_  
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# Part VI: Additional Information & Questions

(Optional) Please feel free to share with us any additional information that may help us match you with research projects/labs, or information that you consider important for participating in the program.

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(Optional) Do you have any questions for us?

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**Return your completed application** to us by **email** (to [summer@icord.org](mailto:summer@icord.org)), **fax** it to 604-675-8820, or **mail** it to:

seed2STEM / ICORD  
818 West 10th Avenue, Vancouver BC  
V5Z1M9

After we receive your completed application form, we will send you a consent form by email. It will need to be signed by you and your guardian and returned by email or fax.

Thank you!

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with the generous support of

