



GIRLS AND STEAM

Experience Guide
February 22–26, 2022



Introduction

Welcome to the Girls and STEAM Experience Guide! Here you will find a full schedule for the week of events, instructions on how to register and an overview of how to navigate the site!

We have a full week packed with mentor breakout rooms, interactive virtual booths, live workshops, fun at home activities and an incredible keynote address by Alexis Williams (A.K.A Lele Genevieve). Be sure to plan your breakout sessions a head of time! With 32 breakout rooms and over 100 mentors there is something for everyone to explore! Want to go to two sessions at the same time? Or just want to rewatch sessions you attended? Don't worry! All the mentor breakout sessions will be recorded and added to our YouTube channel after the event.

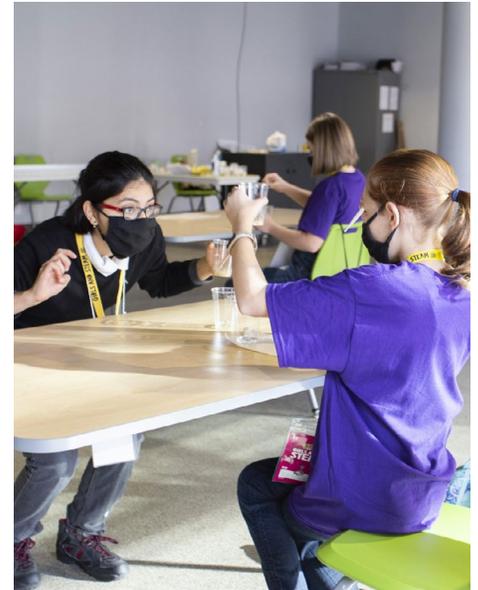


Girls and STEAM is a free virtual conference aimed at girls aged 14–16 years old. You can register for the event by visiting: <https://projectboard.world/girls-and-steam>

While the terms “women” and “girls” are used in our event, Girls and STEAM invites participants and mentors who identify as women, girls, trans, genderqueer, non-binary, two-spirit and gender questioning.

WE ALSO HOLD MONTHLY EVENTS!

Join us on the 4th Saturday of each month for our Girls and STEAM Mentor Café. Each month we choose a different theme relating to current events, requested topics or by partnering with local community groups. Mentors from all over join us to talk about their careers and backgrounds and facilitate fun demonstrations and activities! Don't miss a monthly event by signing-up for our [Girls and STEAM newsletter](#).



[Click here](#) to learn more about past Girls and STEAM events

[Click here](#) to see past Girls and STEAM mentor breakout rooms and monthly events

If you have any questions, please feel free to reach out via girlsandsteam@scienceworld.ca or by leaving a message at 604.443.7564

MEET OUR KEYNOTE ALEXIS WILLIAMS



Hi :) I'm Alexis Williams an Afro-Latina New Yorker; I'm twenty years old and a student at NYU Tandon School of Engineering studying Integrated Design and Media (IDM). According to NYU, "IDM is a 'STEAM' program combining artistic inquiry with scientific research and technological practice to explore the social, cultural and ethical potentials of emerging technologies. [Focusing] on how to create new experiences with technologies but also on what is worth making and why." I am a programmer with years of experience in Web Development, Mobile Applications, VR, Wearables and more, with an interest in the intersection of Social Activism and Tech. My non-coding creative outlets include sound engineering, content creation, film, photography, writing, and performing arts. Being a fast learner and endlessly curious is a blessing and a curse! I'm kind of obsessed with doing everything. My second persona is "Lelegenevieve," a Tik Tok alias where I take to the platform to discuss civil rights, social issues, current events, and make funny jokes about being a Black, Latina, queer woman in STEAM.

MEET OUR WORKSHOP PRESENTERS

Live workshop presented by BGC Engineering

BGC Engineering Inc. (BGC) is an international consulting firm that provides professional services in applied earth sciences. Our practice was established in 1990, based on a specialized appreciation of the impacts of geology on engineered structures. This continues to be our foundation today, enabling us to address a broad spectrum of engineering and environmental issues related to development in challenging terrain.

Join the team of engineers and geoscientists from BGC Engineering to investigate the cause of a large landslide threatening a mountain village. In this interactive workshop, we need your help to solve the mystery and choose an engineering solution to save the village. BGC's workshop runs at 10am on Saturday, February 26th.

Activity Video presented by Kiewit

Kiewit is one of North America's largest and most respected construction and engineering organizations. Our construction and design engineering professionals work on some of the industry's most complex, challenging and rewarding projects—whether it's boring tunnels through mountains, turning rivers into energy, or building bridges that connect communities. Kiewit people tackle important projects of every size, in any market.

Discover how a career in engineering and construction can empower women and positively impact the environment, the economy and the traveling public in a fun activity video from Kiewit. Kiewit's activity video will run at approximately 10:50am during the Girls and STEAM event on Saturday, February 26th.

Plan Your Visit

Ready to register? Follow the steps below to get registered for the event and gain access to the site so you can explore all of the booths, games and mentor breakout rooms prior to the event days! You can learn more about these activities through the schedule (pg.5–8) and read about the mentor sessions (pg.9–13)

STEP 1: Visit projectboard.world/girls-and-steam

STEP 2: Click the red “Register Now” button in the center of the page

STEP 3: Fill out the sign-up form, once you push “continue” a verification code will be sent to your e-mail address

STEP 4: Enter your verification code and fill out the Tell Us More About You page then click continue

STEP 5: You are now registered for the event! You will receive a confirmation e-mail within a few minutes of registering

The site will go live on February 18th so you to explore and plan your event days! If you need any help navigating the site, please see “Navigating the Platform” on pg.14

With 32 breakout sessions and over 100 mentors, make sure to plan what sessions you would like to attend ahead of time!

Want to go to two sessions at the same time? Or just want to rewatch sessions you attended? Don't worry! All the mentor breakout sessions will be recorded and added to our YouTube channel after the event.

This event wouldn't be possible without our incredible sponsors:

MAJOR PARTNERS



PREMIUM PARTNERS



PARTNERS



Schedule

Please note that all times are in PST

TUESDAY, FEBRUARY 22TH 5PM–7PM

TIME	EVENT NAME	LOCATION	DESCRIPTION
5:00pm	Welcome and start of breakout session 1	Mentor Breakout Rooms	<p>Sessions running at this time are:</p> <ul style="list-style-type: none"> ▪ Robotics ▪ City Builders ▪ Physics ▪ STEAM Educators and Leaders ▪ Sports Medicine ▪ Community Builders
5:45pm	Interactive Booth Exploration/ Bio Break	Exhibition Hall	<p>Ready to learn more about the schools and organizations supporting girls in pursuit of STEAM careers? Be sure to swing by our interactive virtual booths to learn more!</p> <p>Once you have visited a booth be sure to test your knowledge! Each booth will have a mini menti quiz. Complete the quiz and collect words to unlock a secret phrase!</p>
6:00pm	Start of Session 2	Mentor Breakout Rooms	<p>Sessions running at this time are:</p> <ul style="list-style-type: none"> ▪ Computer Sciences 1 ▪ STEAM Project Management ▪ Inventors and Tinkerers ▪ Analyzing Data ▪ Fashion Tech ▪ Marine Biology
6:45pm	Close		

THURSDAY, FEBRUARY 24TH 5PM–7PM

TIME	EVENT NAME	LOCATION	DESCRIPTION
5:00pm	Welcome and start of breakout session 1	Mentor Breakout Rooms	<p>Sessions running at this time are:</p> <ul style="list-style-type: none"> ▪ Researching Bodies ▪ Cyber Security ▪ Chemistry ▪ Software Development ▪ Earth Past and Present ▪ All About H2O
5:45pm	Interactive Booth Exploration/ Bio Break	Exhibition Hall	<p>Ready to learn more about the schools and organizations supporting girls in pursuit of STEAM careers? Be sure to swing by our interactive virtual booths to learn more!</p> <p>Once you have visited a booth be sure to test your knowledge! Each booth will have a mini menti quiz. Complete the quiz and collect words to unlock a secret phrase!</p>
6:00pm	Start of Session 2	Mentor Breakout Rooms	<p>Sessions running at this time are:</p> <ul style="list-style-type: none"> ▪ Computer Sciences 2 ▪ Tracking the Cure ▪ Unusual Engineering Careers ▪ A.I. and Virtual Worlds ▪ Putting the A in STEAM ▪ Bugs, Bees and Bats
6:45pm	Close		

SATURDAY, FEBRUARY 26TH 9AM–NOON

TIME	EVENT NAME	LOCATION	DESCRIPTION
9:00am	Opening Introductions from our host Hebah	Lobby Main Stage	Join our amazing Girls and STEAM host, Hebah as she welcomes you to the event and starts things off with a BANG!
9:10am	Keynote Speaker (Alexis Williams)	Lobby Main Stage	While sharing her experience as a woman in STEM, Alexis is particularly excited to discuss how being a member of marginalized communities contributes to her work. She will also speak on the importance of applying your skills and privilege toward supporting communities and topics you are passionate about.
9:40am	Live Q&A Session with Keynote	Lobby Main Stage	Got any burning questions for Alexis? Our live Q&A session gives you the opportunity to ask directly! Keep an eye out for a question box next to our main stage screen or you can e-mail us your questions ahead of time to girlsandsteam@scienceworld.ca
9:55am	Science-at-Home: Explore A Flower's Vascular System	Lobby Main Stage	Join Science Worlder Cindy in this easy at home activity as she makes some colourful flowers and explores how the vascular system works in plants.
10:00am	Live workshop with BGC Engineering	Lobby Main Stage	Join the team of engineers and geoscientists from BGC Engineering to investigate the cause of a large landslide threatening a mountain village. In this interactive workshop, we need your help to solve the mystery and choose an engineering solution to save the village.
10:25am	Science-at-Home: Create a Camera Obscura in Your Bedroom	Lobby Main Stage	Join Science Worlder Cindy in this easy at home activity as she makes a camera obscura and captures an image of her neighbourhood using only cardboard and a window!
10:30am	Interactive Booth Exploration + Bio Break	Exhibition Hall	Ready to learn more about the schools and organizations supporting girls in pursuit of STEAM careers? Be sure to swing by our interactive virtual booths to learn more! Once you have visited a booth be sure to test your knowledge! Each booth will have a mini menti quiz. Complete the quiz and collect words to unlock a secret phrase!

SATURDAY, FEBRUARY 26TH 9AM–NOON

10:50am	Kiewit Activity Video	Lobby Main Stage	Discover how a career in engineering and construction can empower women and positively impact the environment, the economy and the travelling public in a fun activity video from Kiewit.
11:00am	Mentor Breakout Sessions	Mentor Breakout Rooms	Sessions running at this time are: <ul style="list-style-type: none"> ▪ Animation ▪ Video Game Creators ▪ Web Developers ▪ Caring for Bodies ▪ Micro Medical ▪ Environmental Sciences ▪ Changing the World Through STEAM ▪ Designed for Speed
11:00am	Main Mentor Panel	Lobby Main Stage	Join us on the main stage for our Main Mentor Panel a curated panel of our V.I.P. panellists.
11:40am	Science-at-Home: How to 'Walk' Water From One Cup to Another!	Lobby Main Stage	Join Science Worlder Sarah in this easy at home activity. You'll observe the effects of capillary action, the process of water moving from one place to another through tiny gaps or tubes in a material.
11:45am	Virtual Gameshow	Lobby Main Stage	Test your STEAM knowledge and clues collected from the Interactive Booths to help you reach the top of the score board! We will be running the gameshow through www.menti.com . Join us on the Main Stage to receive a code from our host shortly before the game begins.
Noon	Closing Remarks	Lobby Main Stage	

Mentor Breakout

TUESDAY – SESSION A (5PM–5:40PM)

TITLE	DESCRIPTION
 Robotics	<p>How does robotics effect our daily lives? In this panel you will hear from professionals who have careers related to robotics all the way from designing parts to educational uses. If you have ever been curious on how to build your own robot or what kind of careers are available in the field, this panel is for you!</p>
 City Builders	<p>Where do cities come from? Even the most massive structures have humans that imagined and created them. Explore the amazing world of civil engineering with these incredible mentors who design bridges, buildings, and even electrical routes for cities!</p>
 Physics	<p>What does a physicist do? These amazing researchers and educators share their unique career paths and the type of work they do each day. Discover more about this fascinating field that explores the science of matter, motion and energy!</p>
 STEAM Educators and Leaders	<p>Who are the people who help train all of these amazing mentors? These STEAM professionals share their skills in STEM education, leadership, and digital arts and media to find ways for all of us to learn better in a changing world. Discover more about opportunities to share STEAM skills with others.</p>
 Sports Medicine	<p>Are you a sports fan with a nerd side? These mentors specialize in concussion management, injury rehabilitation and science-based personal training. Join them as they share how they found their way into sports medicine and what skills you need to pursue similar careers!</p>
 Community Builders	<p>Once a city is built, how do we make sure it still serves its growing community? Learn from these electrical and civil engineering experts on how to continue to serve our growing and ever-changing communities.</p>

SESSION B (6PM–6:40PM)

TITLE	DESCRIPTION
 1 Computer Sciences 1	<p>Got a general fascination with computers? Join these mentors to learn about the ever-expanding world of computer sciences and learn more about machine learning, information technology, and programming!</p> <p>Want more computer sciences? We heard you! Be sure to check out Computer Sciences 2 breakout session Thursday at 6pm.</p>
 STEAM Project Management	<p>How can you harness the skills of many (sometimes hundreds or thousands) of STEAM professionals to create new and amazing projects? These mentors explore ways to manage plans and people to achieve these goals. Delve into the skills and experience that help them to lead their teams.</p>
 Inventors and Tinkerers	<p>Are you an inventor and maker? Do you enjoy making your own gadgets but don't know how to turn that into a career? Join these inspiring mentors and learn more about tinkering and tool skills that they have built their careers around! From woodwork, to 3D printing these mentors have incredible knowledge to share!</p>
 Analyzing Data	<p>What kind of skills do you need not only to record numbers but understand the patterns they create? These mentors make use of the M in STEAM, Math!, to help unravel the mysteries of maps, transportation and digital data. Explore the amazing ways that business and STEAM overlap.</p>
 Fashion Tech	<p>Are you a fashion nerd with an interest in technology? Join these amazing mentors and explore where fashion and tech collide. From flexible batteries to how fabric is tested to be flame resistant, these mentors have amazing stories to share!</p>
 Marine Biology	<p>Are you drawn to the water and all the wonderful creatures living within it? Come and learn about the process of marine development, how organisms interact with one another and the ecosystem and how pollution may affect marine environments. Uncover more about the exciting and important career options in these fields.</p>

THURSDAY – SESSION A (5PM–5:40PM)

TITLE	DESCRIPTION
 Researching Bodies	<p>How do we advance our medical knowledge of the human body? If you are interested in medical fields but don't know where to start, this is the breakout room for you! These mentors specialize in medical research fields neuroscience all the way through to cancer research. Join this panel to learn more about their amazing research!</p>
 Cyber Security	<p>Data is valuable and with so much sensitive information online, how do we protect ourselves? Cyber security is one of the fastest-growing fields in the world and there is a reason! Join these professional mentors and learn why they chose to be data protectors and how you can start your own journey in tech!</p>
 Chemistry	<p>What are the building blocks that everything in the universe is made of? These chemical specialists study chemistry in many forms and work to teach the world about them. Discover their amazing careers studying unseen worlds.</p>
 Software Development	<p>Ever wondered what makes your computer work? Join these software developers and learn about the skills needed to create the applications and programs we use every day! From video game creation to data analyst, learn all about how to start your career in software development.</p>
 Earth Past and Present	<p>How do we track our changing world? This panel includes mentors that will lead you on the story of our world. Through fossils and geospatial exploration, you will learn how we understand our planet past, present and possibly future.</p>
 All About H2O	<p>Did you know 71% of our world is made of water? These mentors definitely do which is why their careers are all water-based! From designing submarine rescue vehicles to water resource management these STEAM professionals have some amazing jobs all about H2O!</p>

THURSDAY – SESSION B (6PM–6:40PM)

TITLE	DESCRIPTION
 2 Computer Sciences 2	<p>Got a general fascination with computers? Join these mentors to learn about the ever-expanding world of computer sciences and learn more about algorithms, practical disciplines including design and implementation of hardware and software.</p> <p>Want more computer sciences? We heard you! Be sure to check out Computer Sciences 1 breakout session Tuesday at 6pm.</p>
 Tracking the Cure	<p>How can we learn more about the tiny viruses and diseases that can affect our bodies? These researchers and STEAM professionals study antibiotic resistance, genetics, and immunology to learn more about how to treat infectious diseases and other human hazards. Learn more about how they got to the roles they have now and what their careers are like on a daily basis.</p>
 Unusual Engineering Careers	<p>Have you ever wondered about the many kinds of projects that engineers are involved with? These remarkable engineering specialists have worked in biomedical, electronic and mining engineering. Discover the skills and experiences that go with these amazing engineering careers.</p>
 A.I and Virtual Worlds	<p>How can we create virtual environments and even believable artificial humans? These STEAM professionals create software, animation, and even whole worlds to bring to life interactions that have never existed before. Get to know some of the amazing work that is happening in these new fields.</p>
 Putting the A in STEAM	<p>Are you interested in STEM but have an artistic side? Join these mentors that feel the same! They use their backgrounds in STEM to explore careers in digital art, photography and more! Learn how to combine your passions and create a career path as unique as you are.</p>
 Bugs, Bees and Bats	<p>Have you ever dreamed of a career studying living creatures? These amazing mentors look at critters of all sizes and the ways in which their environments can impact them. Come and listen to these mentors share their remarkable experiences of studying the living world!</p>

SATURDAY – 11AM–11:40AM

TITLE	DESCRIPTION
 Animation	<p>What goes into an animated piece before we see it on the big screen? Join these inspiring mentors to learn about the animation process from voice acting, production and design. Get your questions ready because these mentors have a lot to share with you about their exciting animated worlds!</p>
 Video Game Creators	<p>How does a video game grow from idea to execution? This panel includes designers, programmers, animators and others who help bring these amazing games to life. Learn more about the many backgrounds and skills that go into video game creation with this fantastic group of mentors.</p>
 Web Developers	<p>We use the web every day, but do you know how it really works? Join these fantastic mentors and explore the World Wide Web from all sides! This panel includes mentors with knowledge in website design, user experience journeys and digital marketing tactics!</p>
 Caring for Bodies	<p>How can we keep our bodies healthy? These mentors specialize in medical and research fields including nursing, general practicing and beyond. Find out more about their experiences in these exciting medical fields.</p>
 Micro Medical	<p>What are the building blocks of life that allow our bodies to do amazing things? These mentors study the medical field from its smallest pieces—living cells. Learn about disease research, blood cells, and more with these incredible medical scientists.</p>
 Environmental Sciences	<p>What can we do to ensure a thriving future that minimizes our impact on the environment? These engineering mentors are exploring solutions to reduce carbon outputs and address climate change. Uncover more about the exciting and important career options in these fields.</p>
 Changing the World Through STEAM	<p>How can you share scientific discoveries and make them accessible to others? These remarkable mentors work to find ways to make STEAM learning accessible, anti-racist and gender-inclusive through school programs and beyond. Find out more about what it is like to be a STEAM professional making the world a better place.</p>
 Designed for Speed	<p>Does red really make cars go faster? These mentors use their skills in engineering to design and build vehicles ranging from aircrafts to race cars. Explore some of these amazing careers in the engineering fields and learn more about creating vehicles for speed!</p>

Navigating The Platform

Girls and STEAM will be held virtually on a platform called ProjectBoard. Once you have registered for the event (make sure you get your confirmation e-mail!) you will be able to access the full site as of February 18th. When you go to the site you will see that the "Register" button has changed to "Enter Lobby" By pushing this button, you will be led to the main lobby.

Fun Tip: there are lots of secret clickable objects on the lobby page, see how many you can find!



In the main lobby you will find the **1 Main Stage**, this will be the main space for the event. Please see the schedule on pg. 4 for details on what will be playing on the main stage.

From here you can navigate to the **2 Exhibit Hall** where you explore the virtual booths and collect clues for the main Gameshow through the mini games. You can also collect virtual pins which you can print at the end of the Saturday event!

You can also navigate to the **3 Mentor Breakout Rooms**, where you will find bios and headshots for all our mentors along with links for the live sessions. Please note, our mentor sessions will be streamed on YouTube where you can engage with the mentors and ask questions in the chat to the right of the screen.

If you have any questions, please feel free to reach out at anytime at girlsandsteam@scienceworld.ca or you can leave a message at 604.443.7564