



PROGRAMMING
GUIDE
2023-2024

SCIENCE EAST

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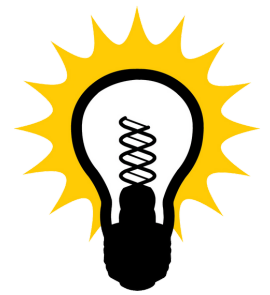
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Science East Overview

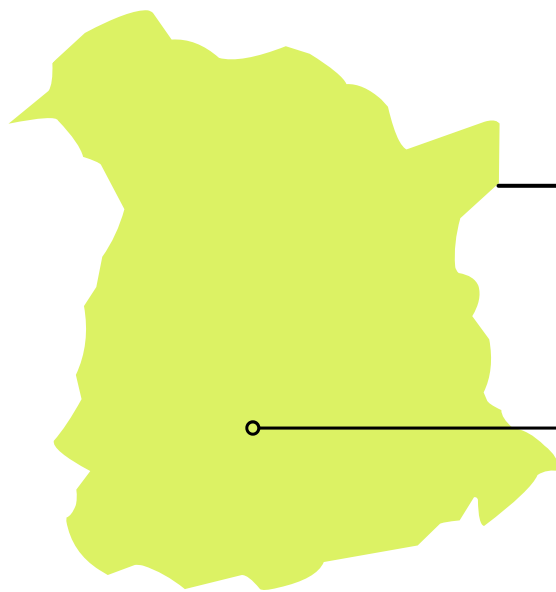


Learn more about us

Science East is much more than a science center - we are one of the most active public science and technology educational organizations in New Brunswick. We work both inside and outside of the school system to reach students, teachers, families, businesses, and communities in every region of the province. Our mission is to inspire and inform through hands-on learning!

The key to Science East's high demand in the school system is our inquiry-based and hands-on programs, that are thoughtfully designed and delivered by our experienced staff. Through partnerships, we work with teachers and districts to adapt to their constantly changing needs.

**10,868 K-12 STUDENTS
IN 733 CLASSES**



Out of our center we saw

**6639 STUDENTS
IN 435 DIFFERENT CLASSES**

In our center we saw

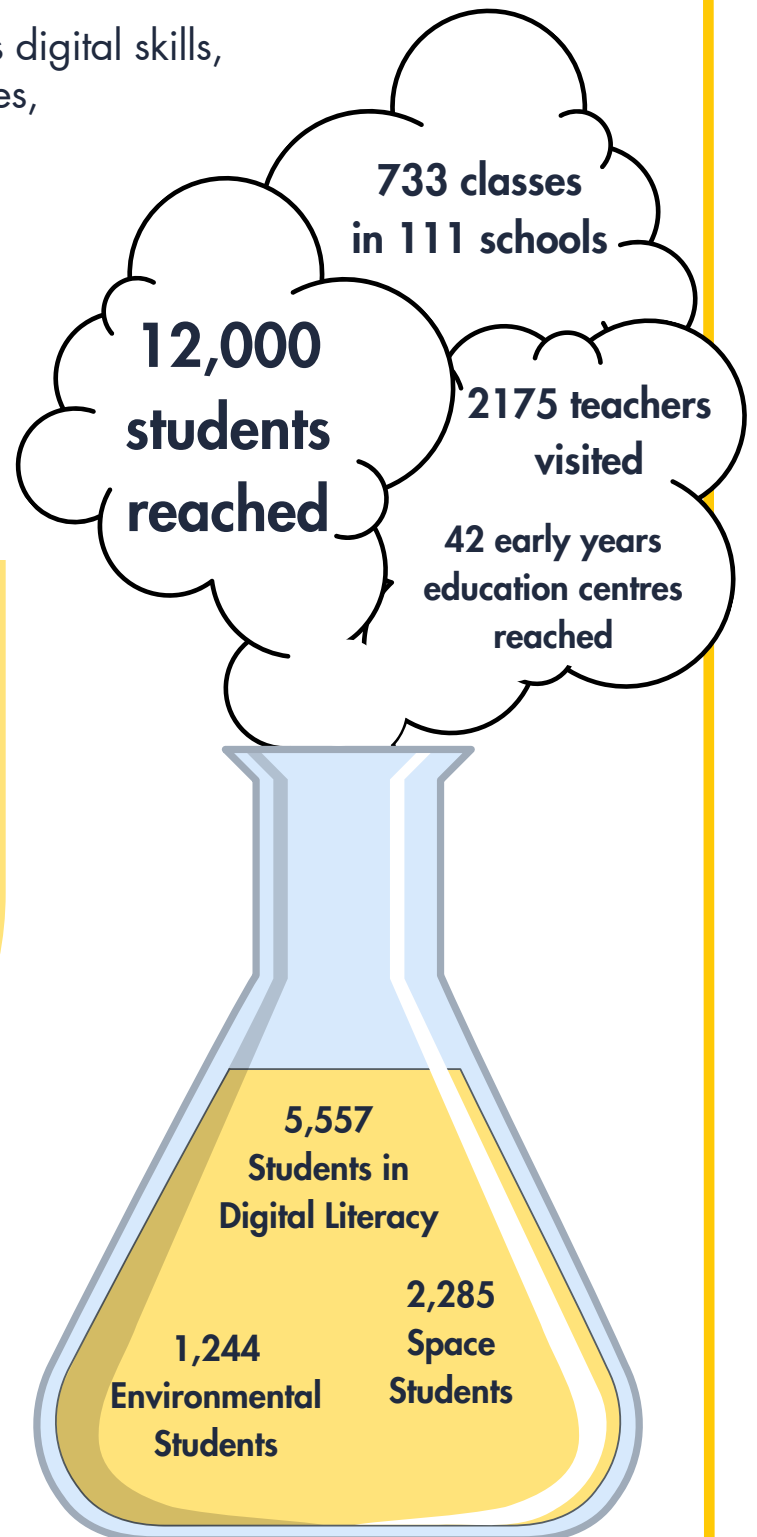
**4229 STUDENTS
IN 298 DIFFERENT CLASSES**

Workshop Overview










Science East offers a multitude of STEM workshops that complement the K-12 curriculum by matching outcomes with unique hands-on workshops.

Science East offers several topics, such as digital skills, climate change action, ocean and fisheries, engineering, math, and space!













We also offer all our workshops in French and English!



Workshops

	Topics	Grade	Details
	Storytelling	PreK-3	Choose one of our robots to recreate a story, including characters and costumes. Work as a team on your computational thinking as you code your robot! We have a wide selection of story books and themes for you to choose!
	My first robot	PreK-5	Introduce your student to robots and coding with this engaging screen-free workshop. Develop your student's computational thinking skill with robots adapted to their age. We offer multiple robots such as : Code-a-Pillar, Botley and KIBO.
	Using your Senses	PreK-5	Introduce your students to science skills, allow them to learn to observe, make inference and use instruments. You can choose to play with our themed sensory bin, use microscopes or even monitor sound in your school in an activity tailored to your students!
	Habitat and Community	K-8	Let your students create their own community with building and roads, or build a habitat and let our line-following robots be a part of it. Don't forget to add codes to tell your robot to slow down in a school zone or pause to drink water. How many robots can you fit in your habitat? Learn how a self-driving car works!
	Nature Detective	K-8	Use your observation skills as you try to identify animals based on their skulls, scats and tracks. Can you identify the presence of animals by looking at your surroundings? Bring your students outdoors to identify trees using a dichotomous key.
	Science Show	K-12	Choose your topic and enjoy the science show! Be amazed by the wide variety of topics including: states of matter, invisible forces, optics, electricity, and many more.
	Pixel Art	3-12	Show your creativity as you recreate your favorite video game character and learn about pixels and resolution. Go back in time as you use a frame by frame technique to create animations.
	Technology Detective	3-12	Your students will develop their critical thinking while using new scientific tools. Our activities include: water analysis, using a digital microscope, learning about ocean sampling technology, extracting DNA from strawberries and even using remote sensing technology to map the content of a mystery box?
	Robot Battles	3-12	Time to robo-battle! Learn a the design process as students work in teams to plan, create, test, and redesign armor for robots! Problem solving and creativity are a must in this design challenge.

Workshops

	Topics	Grade	Details
	Structures	3-8	How do shapes play a role in structures? How do engineers test their designs? Students will learn all this and more with our fun hands-on activity! Use problem solving and teamwork to build a bridge with wooden planks, a tower out of straws or even protect an egg astronaut during it's landing!
	Simple Machines	3-8	Explore the world of pulleys, wedges, wheels and axles, levers, inclined planes, and screws! What machines do we use in everyday life? Students will use problem solving and teamwork to build simple machines to accomplish a challenge assigned by educators.
	Earth Science	3-8	Choose one of our many topics in Earth Science that best suits your needs. Build your very own erosion barrier in a creative, hands-on challenge or learn about non-renewable resources by using cookies!
	Ecosystems and Adaptation	5-8	Students will show their creativity as they create their own species adapted to an extreme environment or create their own invasive species! What characteristics should they add? Discuss endangered species, understand anatomy by making your own fish print, or use scientific tools to analyze samples of water.
	Circuits	5-8	Students will discover the interaction between software and hardware as they use Arduino to complete circuits and follow the path of electricity. Add lights, buttons and even a fan to your own circuit! The activity is also available as a 4-part project.
	Cells	6-8	Learn the roles of the cell's organelles while you use Sphero robots to gather resources to make ATP and proteins. Extract DNA from strawberries! And learn why oceanographers use DNA to study fish populations.
	Climate Action	 6-8	Learn the roles and importance of forests in the fight against climate change. Students will use their problem solving and communication skills as they work with the carbon cycle, map climate change concepts and review music videos! Other activities will be added through the year and can be customized.
	Space Education	 K-8	Learn all about the universe and all its wonders with our various workshops, including topics such as eclipse, space travel, light theory, and many more!
	Slime	 3-8	Learn all about states of matter and non-Newtonian fluids while getting your hands messy and slimy! What is a chemical reaction? What is a molecule? Find all your answers in a new and exciting way with slime!

Stem Kits

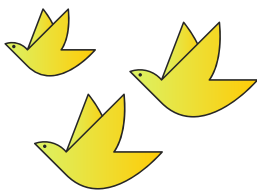
STEM kits bring Science East into the classroom with skills based activities tied to the New Brunswick curriculum. STEM kits provide educators with all materials needed and detailed instructions for facilitation of group and individual activities on a variety of topics.

Our STEM kits include everything for teachers to lead the activity :

- ☑ Lesson plan
- ☑ Extension Activities
- ☑ Curriculum Connections
- ☑ Storybook
- ☑ Materials and/or Equipment



AVAILABLE PROVINCE WIDE



"I liked the hands-on materials and appreciated the chance to use some expensive equipment that would normally not been available in the classroom"
- Kindergarden Teacher at Keswick Ridge School

"The kits were nicely organized. The students loved the micro:bits and they were able to use them without any frustration on my part thanks for the instructions and lesson plans provided!" - Grade 3 Teacher at Florenceville Elementary School

Topics Grade Details



BeeBot

K-2

BeeBots provide students with a screen free introduction to algorithms and block coding. In this exploration, give your students free reign to problem-solve challenges and watch their confidence grow!



Code-a-Pillar

K-2

Code-a-Pillars allow children as young as three to begin learning how to communicate with robots through code. Students will follow verbal instructions and work to recreate simple patterns. In groups of two, students will learn how to communicate with a partner, problem-solve, and begin to recognize patterns.



Light & Shadows

K-2

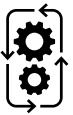
In this kit, students will explore the world of shadows as they ask questions, search for shadows, and manipulate light in a variety of ways. Students will have exploration time to make discoveries and ask engaging questions.



Sound

K-2

This STEM kit encourages students to use their mathematical skills while also exploring a scientific concept. Data collection, representing, and analyzing are all important math and science skills that are a focus in this lesson.



Simple Machines

K-8

In this activity, students will explore the concept of simple machines and how useful they are in daily life. They will gain a deep understanding of the advantages of each type of simple machine as they create a tool to accomplish a goal.



Structures

K-8

Introduce students to the world of engineering. by focusing on the two most important components of building structures: shapes and materials. Students will spend their time exploring shapes, analyzing materials, and recording data about their structures. Students will learn from each mistake to become a better engineer.



Ozobots

K-8

Understanding the purpose and limitations of a tool is key to using such tools properly. This is a basic science skill that leads to long-term science literacy. The following activities will introduce students to basic digital and science skills including pattern recognition and sequencing.



Micro:bit

3-8

With simple yet engaging programming, children can control LED displays, create games, and interact with sensors. This hands-on experience introduces coding concepts in a fun and intuitive way, encouraging creativity while building a strong foundation in programming.



Solar Eclipse

K-8

In honor of the 2024 solar eclipse, this new workshop will provide your students with a basic understanding of light, shadows, and perspective.



Ocean & Fisheries

K-8

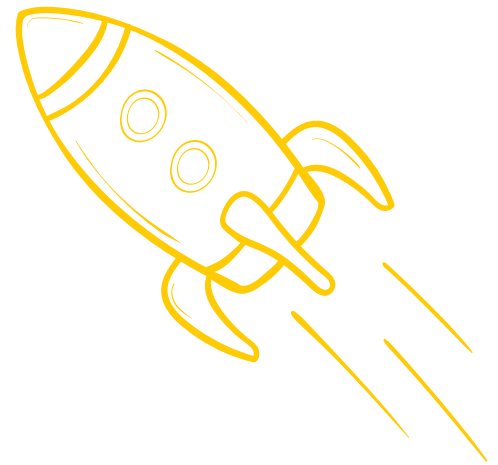
The Ocean & Fisheries workshop is adaptable to all ages and allows students to explore the mysteries of the oceans with technology provided by Science East.

Traveling Planetarium

Discover the wonders of space with Science East's portable planetarium! Unique to New Brunswick, our incredible planetarium is available at the science centre, or at the location of your choice. This interactive show is perfect for space-related curriculum and stargazers alike! Planetarium shows are completely interactive and audience-driven.

The traveling planetarium is:

- ✓ Adaptable to all ages
- ✓ Includes curriculum connections
- ✓ Fits in a 15 x 15 x 15 space
- ✓ Fits up to 35 students
- ✓ Is wheelchair accessible



Travelling Exhibits

Bring the wonders of Science East to your location with our 30 hands-on traveling exhibits! Science East brings a variety of exhibits for all ages to enjoy that include the thrilling chair of nails, optical illusions, and brain-teasing puzzles! Science East brings along everything necessary including tables, chairs, and your very own Science East educator!



Exhibits are available for most events such as school fairs, community days, parent-teacher nights, and much more!

Professional Development



With more than 20 years of experience and expertise, Science East offers interactive professional development workshops for teachers and educators.

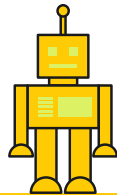
Participants experience activities in a manner similar to how students experience them, providing them with trouble-shooting knowledge and confidence! Renew skills with discovery learning or get to know some technological materials that you might already have at your school! Sessions range from hours to a full day.

Other Programming

Field Trips

Spark enthusiasm for science and technology with New Brunswick's hands-on science centre! Science East offers more than 150 hands-on exhibits, science events and programs all designed to meet the outcomes of New Brunswick's science curriculum. Come to our unique science centre in the historic former York County Jail, Bring your class to our center and enjoy our exhibits and a workshop!

Field trips are 75 minutes and include a 30 minute workshop or science show of your choice.



Digital Literacy

Are you interested in robots and coding? Let us visit ALL THE CLASSES in your school! Or maybe would you prefer to introduce robotics, coding and circuits to your students over a 4 sessions project? Or even add a robotic component to one of your own project? We have what you are looking for! Our 4 sessions program include :

- Block-based coding
- Circuits
- Robots



NB Science Fairs



Science East coordinates the New Brunswick Regional Science Fairs for the entire province. The goal of science fair participation is to empower youth to get hands-on and active in science by researching and exploring questions related to problems that interest them. Our experienced staff provides support to guide teachers and students through the process.



Pricing

Out of the Center

Workshop/Science Show

30-45 Minutes ----- \$6.00/Student

Planetarium

3 Hours ----- \$250.00

6 Hours ----- \$500.00

Traveling Exhibits

3 hours ----- \$200.00

Travel Fees

Within 150km of Science East ----- \$0.50/km

Outside of 150km of Science East ----- \$200 + \$0.50/km

In Center

Center Exploration

60 Minutes ----- \$6.00/Student

Workshop/Science Show + Center Exploration

75 Minutes ----- \$9.00/Student

Planetarium + Center Exploration

75 Minutes ----- \$9.00/Student

Extra Workshop/Science Show

30 Minutes ----- \$3.00/Student

**Contact us directly
to find out if any grants are available
for your group!**

**Indigenous and school groups are tax exempt*
*prices are subject to change**