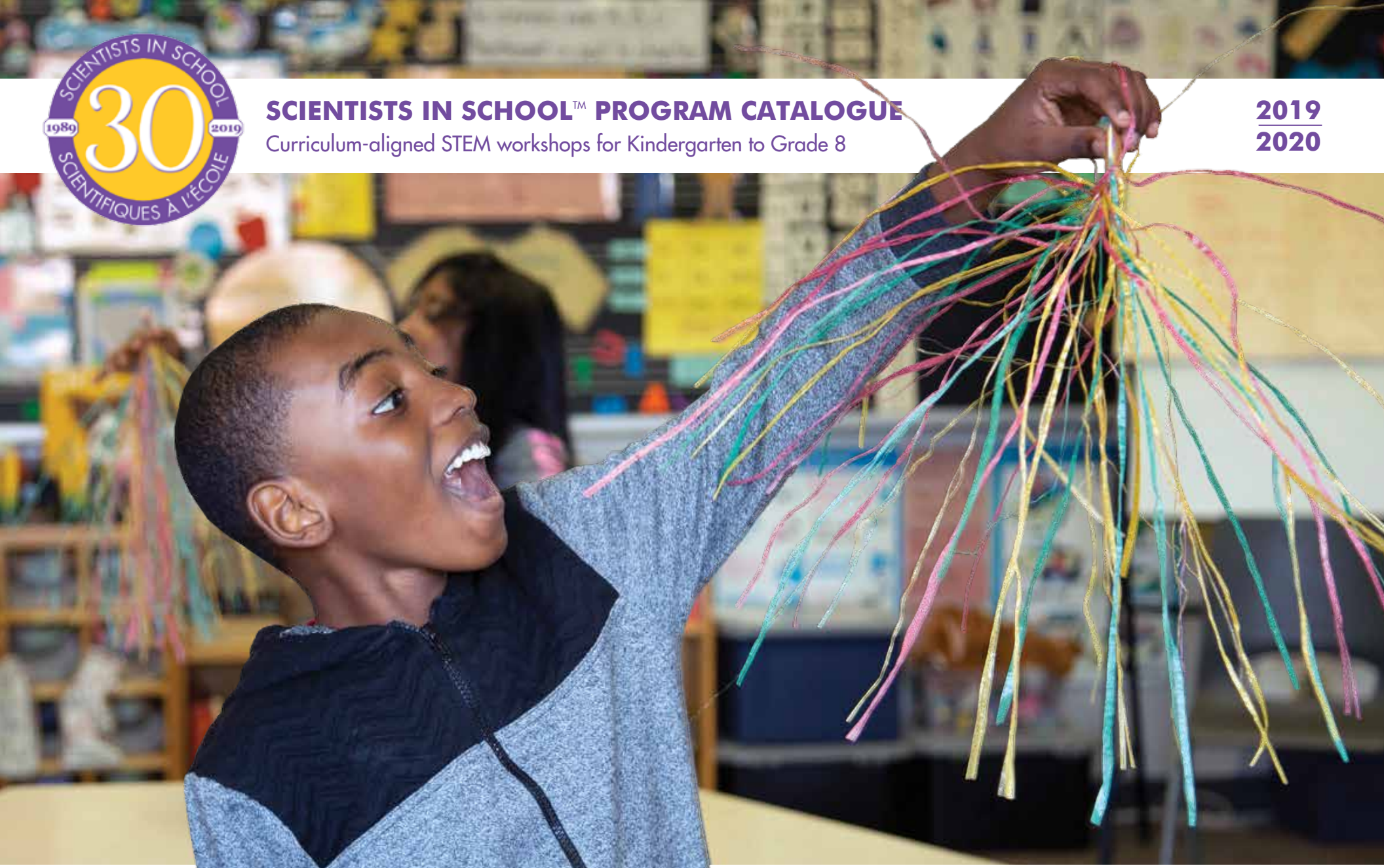
SCIENTISTS IN SCHOOL™ PROGRAM CATALOGUE

Curriculum-aligned STEM workshops for Kindergarten to Grade 8

2019
2020



OTTAWA AND THE NATIONAL CAPITAL REGION

BOOK EARLY FOR BEST DATE AND TOPIC CHOICE!

SCIENTISTS IN SCHOOL

A non-profit offering experiential science, technology, engineering, math (STEM), and environmental workshops.

Your inquisitive students, under the guidance of experts, will become scientists, engineers and environmental stewards while developing the global competency skills they need for tomorrow's workforce.

Our workshops offer:

- An inquiry-based, real-world experience with plentiful scientific materials and equipment
- Local presenters who are scientists, engineers, technologists and more
- The opportunity to highlight STEM careers, helping students see themselves as future STEM professionals
- Post-workshop extension packages to support your lessons
- Fun and relevant investigations that build critical thinking, collaboration, creativity, communication, and problem-solving skills

We work with teachers, school administrators and school boards to ensure that our program aligns with curriculum, student and educator needs. Like you, our goal is to inspire all children to realize their dreams, regardless of their future aspirations.

30 YEARS STRONG

Thank you! Together, we have shaped the curious minds of ten million students since 1989. We're here because of your dedication to providing your students with life-shaping opportunities. Here's to 30 more years of exploration, discovery, and meaningful collaboration. Let's continue to ensure that all children believe they can dream big and achieve the impossible.

OUR ANNUAL IMPACT BY THE NUMBERS

(2018-2019: Organization-wide)

700,000+
Children and youth inspired through workshops

24,872
Half-day classroom workshops delivered

62,000+
Parent/Guardian volunteers joined in the classroom

2,000,000+
Face time hours of investigation

10,000,000
Young scientists across Ontario and Alberta since 1989!

COLLABORATORS IN EDUCATION

We use an evidence-based approach to provide high-impact workshops that enhance curriculum and provide real-world experiences for your students. A recent post-workshop survey* showed:

97%
of teachers said Scientists in School was very to extremely effective in encouraging students to make discoveries

92%
of teachers said Scientists in School was very to extremely effective in enhancing students' understanding of scientific principles

92%
of teachers said Scientists in School was very to extremely effective in enhancing students' interest in STEM

* Post-workshop survey completed by over 5,000 teachers across Ontario and Alberta in 2019.

ABOUT SCIENTISTS IN SCHOOL

Our Mission is to ignite scientific curiosity in children so that they question intelligently; learn through discovery; connect scientific knowledge to their world; are excited about science, technology, engineering and math; and have their interest in careers in those fields piqued.

Our Vision is for all young Canadians to be actively engaged in the seeing, doing and understanding of science.

For information about our booking terms, conditions, and cancellation policy, please visit www.scientistsinschool.ca/policies/

SCIENTIFIQUES À L'ÉCOLE

Un organisme à but non lucratif qui offre des ateliers expérientiels sur les sciences, la technologie, l'ingénierie, les mathématiques (STIM) et l'environnement.

Vos jeunes esprits inquisiteurs, sous la supervision d'experts, se métamorphoseront en scientifiques, en ingénieurs et en protecteurs de l'environnement. Ils développeront ainsi les compétences requises au 21e siècle pour la main-d'oeuvre de demain.

Nos ateliers offrent :

~ Une expérience fondée sur l'investigation et en lien avec le monde réel, avec un matériel et un équipement scientifique abondant;
~ Des présentateurs locaux qui sont des scientifiques, des ingénieurs, des technologues et d'autres spécialistes;
~ Une occasion de mettre en valeur des carrières dans le domaine des sciences, de la technologie, de l'ingénierie et des mathématiques (STIM) et d'aider les élèves à se percevoir comme de futurs professionnels dans ces domaines;
~ Une trousse d'activités post-atelier pour soutenir vos leçons;
~ Un contenu amusant et pertinent qui permet de développer des capacités de réflexion, de collaboration, de créativité, de communication et de résolution de problèmes.

Nous collaborerons avec les enseignants, les éducateurs et les conseils scolaires afin de nous assurer que nos ateliers s'harmonisent avec le programme scolaire, ainsi qu'avec les besoins de l'élève et de l'enseignant. Comme vous, notre objectif est de permettre à tous les élèves de réaliser leurs rêves, et ce, quelles que soient leurs aspirations futures.

30 ANS DÉJÀ

Merci pour votre collaboration! Depuis 1989, nous avons façonné ensemble les esprits curieux de 10 millions d'élèves. Si aujourd'hui nous sommes plus actifs que jamais, c'est en raison de votre engagement à offrir à vos élèves des expériences enrichissantes. Souhaitons-nous encore 30 années et plus d'exploration, de découvertes et de collaboration fructueuse! Continuons à nous assurer que tous les enfants aient le droit d'aspirer à de grandes choses et de réaliser l'impossible.

NOTRE IMPACT ANNUEL EN CHIFFRES

(2018-2019 : à l'échelle de notre organisme)

Plus de 700 000

jeunes et enfants inspirés par nos activités

24 872

ateliers d'une demi-journée présentés en classes

Plus de 62 000

Parent/Gardiens bénévoles qui se sont joints à nous en classes

Plus de 2 000 000

heures d'activités et d'exploration en face à face

10 000 000

jeunes scientifiques touchés par nos ateliers en Ontario et en Alberta depuis 1989!

DES COLLABORATEURS EN ÉDUCATION

Grâce à une approche factuelle, Scientifiques à l'école est en mesure d'offrir des ateliers à fort impact qui viennent enrichir le programme scolaire tout en procurant aux élèves une expérience concrète. Un sondage* post-atelier mené récemment auprès d'enseignants a révélé les points suivants :

97%

des enseignants ont indiqué que les ateliers de Scientifiques à l'école étaient très efficaces ou extrêmement efficaces pour encourager les élèves à faire des découvertes

92%

des enseignants ont indiqué que les ateliers de Scientifiques à l'école étaient très efficaces ou extrêmement efficaces pour améliorer la compréhension des principes scientifiques de leurs élèves

92%

des enseignants ont indiqué que les ateliers de Scientifiques à l'école étaient très efficaces ou extrêmement efficaces pour améliorer l'intérêt des élèves à l'égard des STIM

*Sondage post-atelier 2019, rempli par plus de 5 000 enseignants en Ontario et en Alberta.

À PROPOS DE SCIENTIFIQUES À L'ÉCOLE

Notre mission consiste à éveiller la curiosité scientifique des enfants afin de susciter chez eux un questionnement intelligent et de favoriser l'apprentissage par la découverte. Nous voulons aussi leur permettre d'établir un lien entre la connaissance scientifique et le monde environnant. De plus, nous visons à susciter leur intérêt pour les STIM, ainsi que pour une carrière dans l'un de ces domaines.

Notre vision est de permettre à tous les jeunes Canadiens de participer activement à des activités scientifiques, de voir la science en action et de comprendre en quoi consiste la science.

Vous pourrez trouver nos modalités de réservation et notre politique en matière d'annulation sur le site www.scientifiquesalecole.ca.

KINDERGARTEN WORKSHOPS

Fee: $195.00

Maximum 30 students/workshop

Backyard Bugs

Volunteers Required

'Bee' an entomologist! Meet the insect family and discover their unique anatomy. Investigate how bugs behave, eat, see and hear. Learn about camouflage and metamorphosis, 'eat' with a proboscis and see the world through dragonfly eyes.

I Can Be A Scientist

Volunteers Required

Become a working scientist! Dig for dinosaur bones and make a fossil as a paleontologist. Explore the weather as a meteorologist while making it rain in the classroom. Become an astronomer and discover the Big Dipper in our constellation tent. Use a lab coat and safety goggles to find the solution as a chemist in the lab!

Simply Marvellous Machines

Volunteers Required

Discover how often you use simple machines in everyday life! Slide down an inclined plane, discover that wedges have edges and make a teeter-totter to take home. Make bubbles using gears, manipulate wheels and axles, explore different wheel designs and investigate the mechanical advantage of using levers.

"I think it dissolved. What do you think?"

"By engaging our students so deeply, they begin exploring the world around them and asking questions, taking them on a path of discovery that they pursue with passion. This is science at its very best!"

"If I put it here, the gears will mesh!"

There's No Place Like Home!

Volunteers Required

Develop a lifelong respect for the environment by learning about a variety of habitats. Build a nest! Slither through your underground tunnel! Discover why your home is salty if you live in the sea and meet some creatures who live there! Step in the mud to examine and explore the footprints of a variety of local animals.

Winter Wonders

Volunteers Required

Delve into the wonderful world of winter and embrace the cold! Conduct cool experiments and learn some frosty facts about how people adapt to winter. Explore how local animals survive Canada's harsh climate. Identify winter birds, listen to their songs, and construct a bird feeder. Become a meteorologist and investigate winter weather!

GRADE ONE WORKSHOPS

Fee: $195.00
Maximum 30 students/workshop

Animal Coverings And Adaptations

Combined Grade Content 1-2 | Volunteers Required

Investigate the insulating properties of a variety of animal coverings and discover some of the amazing adaptations animals use to survive seasonal changes. Use a microscope to explore some of nature's most unusual coverings and get your hands on real quills, shells, scales, feathers and fur!

Energy Makes It Happen

Matter and Energy | Volunteers Required

Investigate the power of the sun as you explore the impact energy has on our daily lives! Make a bubble grow using your own body heat as you investigate thermal energy. Build a circuit to make light and sound. Harness light energy using a solar panel to create a cool painting!

Structures: Under Construction

Structures and Mechanisms | Volunteers Required

As junior engineers, students will participate in activities that will help them understand how various materials and fasteners are used in the real world. Through the use of shapes and various materials, they will design and test the strength and stability of different structures. The final challenge: students work as a team to construct their own structure!

"Look, we're painting with a solar spinner!"

"Scientists in School is always active, always hands-on, always about inquiry and exploration and gets the students excited and fired-up about learning. Scientists in School makes learning, discovery, and inquiry fun."

"I used real tools to explore fasteners!"

ATELIERS POUR 1RE ANNÉES

Prix d'un atelier : 195,00 $
Maximum de 30 élèves/atelier

Avec l'énergie, c'est possible!

Matière et énergie | Bénévoles requis

Découvrez la puissance du soleil et son impact énergétique sur nos vies! Gonflez une bulle à l'aide de la chaleur de votre corps et familiarisez-vous avec l'énergie thermique. Construisez un circuit afin de produire de la lumière et des sons. Harnachez l'énergie lumineuse avec un panneau solaire afin de créer une peinture des plus intéressantes!

Les animaux : ruses et environnement

Contenu pour classes combinées 1re-2e | Bénévoles requis

Découvrez les propriétés isolantes de diverses protections animales, ainsi que les adaptations fascinantes utilisées par les animaux pour survivre aux changements saisonniers. Observez au microscope certaines des protections animales les plus inhabituelles. Examinez de près des piquants, des coquillages, des écailles, des plumes et de la fourrure!

Structures : en chantier!

Structures et mécanismes | Bénévoles requis

À titre d'ingénieurs débutants, les élèves participeront à des activités qui les aideront à comprendre l'utilisation de différents matériaux et fixations dans le vrai monde. À l'aide de formes et de matériaux divers, ils concevront différentes structures et mettront à l'essai leur solidité et leur stabilité. Le défi ultime : les élèves construiront en équipe leurs propres structures!

BOOK ONLINE AND SIGN UP TO RECEIVE STEM ACTIVITIES IN OUR E–NEWSLETTER AT WWW.SCIENTISTSINSCHOOL.CA

GRADE TWO WORKSHOPS

Fee: $195.00
Maximum 30 students/workshop

Animal Coverings And Adaptations

Life Systems
Combined Grade Content 1-2 | Volunteers Required
Investigate the insulating properties of a variety of animal coverings and discover some of the amazing adaptations animals use to survive seasonal changes. Use a microscope to explore some of nature's most unusual coverings and get your hands on real quills, shells, scales, feathers and fur!

Let It Flow: Air And Water

Earth and Space Systems | Volunteers Required
Explore how air and water are vital to the survival of all living things. Learn how important it is to protect these valuable resources. Investigate the properties of air and water and see how harnessed energy from moving air and water can do work for us. See water defy gravity and travel up the stem of a plant. Make a water cycle right in the classroom!

Looking At Liquids

Matter and Energy | Volunteers Required
Explore the three states of matter and change a liquid to a solid right on your desk. Investigate the conditions necessary to produce a change in state. Explore buoyancy and how to increase it. Investigate solubility and take up the challenge to produce the world's biggest bubble!

Math: It Counts

Mathematics
Combined Grade Content 2-3 | Volunteers Required
Open your own bank account and earn money while learning about place value, currency and Venn diagrams. Practice telling time on both digital and analog clocks. Explore fractions while performing a classroom play. Try to trick your teacher as you reorganize yourselves by a mystery attribute.

Move It!

Structures and Mechanisms | Volunteers Required
Discover how simple machines make work easier! Construct your own car while exploring wheels and axles. Go fishing to experiment with levers. Investigate wedges, make your own screw, and learn about inclined planes.

"Exploring solutions is so much fun!"

« J'ai fait plusieurs ateliers avec les Scientifiques à l'école et j'ai toujours été très satisfaite par leur professionnalisme et leur habileté à partager leurs connaissances avec mes élèves. »

"Who knew water could exist in so many forms?"

ATELIERS POUR 2E ANNÉES

Prix d'un atelier : 195,00 $
Maximum de 30 élèves/atelier

Ça bouge!

Structures et mécanismes | Bénévoles requis
Découvrez à quel point les machines simples nous facilitent la vie! Vous construirez votre propre voiture tout en vous familiarisant avec les roues et les essieux. Vous irez à la pêche afin d'expérimenter les leviers. Vous aurez aussi l'occasion d'étudier les coins, de fabriquer votre propre vis et d'apprendre en quoi consistent les plans inclinés.

Jetons un coup d'oeil aux liquides

Matière et énergie | Bénévoles requis
Expérimentez les trois états de la matière et faites passer un liquide à l'état solide à votre bureau! Découvrez les conditions requises pour produire une modification d'état. Apprenez en quoi consiste la flottabilité et comment on peut l'augmenter. Explorez la solubilité et relevez le défi qui consiste à produire la plus grande bulle au monde!

Les animaux : ruses et environnement

Systèmes vivants | Contenu pour classes combinées 1re-2e
Bénévoles requis
Découvrez les propriétés isolantes de diverses protections animales, ainsi que les adaptations fascinantes utilisées par les animaux pour survivre aux changements saisonniers. Observez au microscope certaines des protections animales les plus inhabituelles. Examinez de près des piquants, des coquillages, des écailles, des plumes et de la fourrure!

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GRADE THREE WORKSHOPS

Fee: $195.00
Maximum 30 students/workshop

Force, Of Course!
Matter and Energy | Volunteers Required
What is force? What are the different types and how do they behave? Students will explore friction, magnetism, elastic energy, gravity and much more through an engaging series of investigations.

Math: It Counts
Mathematics
Combined Grade Content 2-3 | Volunteers Required
Open your own bank account and earn money while learning about place value, currency and Venn diagrams. Practice telling time on both digital and analog clocks. Explore fractions while performing a classroom play. Try to trick your teacher as you reorganize yourselves by a mystery attribute.

Plants Do Amazing Things
Life Systems | Volunteers Required
Join this botanical adventure and explore how a plant breathes, grows and stores its food. Examine leaf characteristics, explore plant adaptations and make your own recycled paper. Use a CO_2 indicator to investigate what leaves need for photosynthesis!

Soil: It's Too Important To Be Treated Like Dirt!
Earth and Space Systems | Volunteers Required
Become a pedologist and get down and dirty with a variety of soil types! Discover what soil is composed of. Race water through different soil types to investigate their water-holding capacity. Burrow through soil as a plant root to explore soil texture. Investigate erosion, build a soil profile, and learn about decomposers by making friends with some earthy creatures!

Structures: Stable And Strong
Structures and Mechanisms | Volunteers Required
Build up your knowledge of structural strength and stability! Explore the difference between man-made and natural structures. Investigate how the strength of a material can be altered by its shape. Create structures and learn the impact of forces acting on them. Take up the challenge to design, build and test a bridge.

"I wonder how much water these soil types will hold?"

"Scientists in School has been an integral part of my students' curriculum for many years. The workshops are engaging, motivating and spark critical thinking while integrating STEM skills."

"How far will my pom-pom launch in the catapult?"

ATELIERS POUR 3E ANNÉES

Prix d'un atelier : 195,00 $
Maximum de 30 élèves/atelier

Structures : stables et solides
Structures et mécanismes | Bénévoles requis
Perfectionnez vos connaissances sur la résistance et la stabilité structurale. Explorez les différences entre les structures naturelles et les structures artificielles. Découvrez dans quelle mesure la forme d'un matériel a une incidence sur sa solidité. Créez des structures et découvrez les forces qui agissent sur celles-ci. Relevez le défi de concevoir, de construire et de mettre à l'essai un pont.

Tours de force!
Matière et énergie | Bénévoles requis
Qu'est-ce qu'une force? Quels sont les différents types de force et leurs caractéristiques? Les élèves se pencheront sur la friction, le magnétisme, l'énergie élastique, la gravité, en plus de s'engager dans une série d'expériences exploratoires des plus passionnantes.

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GRADE FOUR WORKSHOPS

Fee: $195.00

Maximum 30 students/workshop

Adventures In The Bone Zone

Special Interest

Combined Grade Content 4-8 | Volunteers Required

Join this ecological adventure and dissect an owl pellet, use magnifying glasses to sort and identify bones and assemble a rodent skeleton. Examine a variety of mammalian skulls to determine species and explore similarities and differences between herbivores and carnivores.

Don't Take Rocks For Granite

Earth and Space Systems | Volunteers Required

Become a junior geologist and dig into the concepts of mineral formation, the rock cycle and fossilization. Identify a mystery mineral, explore rocks from inside a volcano and make your own fossil. Examine igneous, sedimentary and metamorphic rocks and explore how we use mined minerals everyday.

Fractions In Action

Mathematics | Combined Grade Content 4-5

Puzzle through fraction problems and learn how to read and compare fractions. Create a unique design and solve puzzles with fractions in mind. Use manipulatives to explore mixed numbers and improper fractions.

Gearing Up: Fun With Pulleys And Gears

Structures and Mechanisms | Volunteers Required

Step into the physics lab and learn how pulleys and gears change the force required to do work! Create a work of art using an internal gear system. Build a variety of pulley systems, design and construct a gear train and explore how pulleys and gears can change the direction of an applied force.

Light Up Your Life

Matter and Energy

Join us on this optical adventure and discover how to see around corners and over walls! Light up some of your body parts in a hunt for translucent objects. Bounce light to discover the law of reflection. Explore how light travels and split light into the colours of the rainbow. Check out interesting optical devices like periscopes, binoculars, and kaleidoscopes.

Sound Is Music To My Ears

Matter and Energy

Discover the science of sound! Explore sound waves and learn how sound makes your desk hum. Create a laughing duck to investigate amplification. Discover how the human ear detects sounds, guess the decibel level of a jet engine, and learn how to protect your ears. Form your own classroom orchestra and serenade your school! Use oscilloscopes to 'see' sound!

« Cet atelier a permis à mes élèves de devenir de vrais scientifiques en posant des questions, en manipulant et en développant leur esprit critique par rapport à des thèmes directement liés au programme cadre. »

"What rock type is this one?"

ATELIERS POUR 4E ANNÉES

Prix d'un atelier : 195,00 $

Maximum de 30 élèves/atelier

Aventures dans le monde des os

Intérêt spécial | Contenu pour classes combinées 4e- 6e

Participez à cette aventure écologique et disséquez la pelote de réjection d'une chouette. Utilisez une loupe afin de trier et d'identifier les os, puis assemblez le squelette d'un rongeur. Examinez divers crânes de mammifères afin de déterminer les espèces; puis, établissez les ressemblances et les différences entre les herbivores et les carnivores.

Engrenages et poulies : du plaisir garanti!

Structures et mécanismes | Bénévoles requis

Entrez dans un laboratoire de physique où vous apprendrez comment les engrenages et poulies modifient la force requise pour effectuer un travail! Faites une création artistique avec un système interne d'engrenages. Assemblez divers systèmes de poulies, puis concevez et construisez un train d'engrenages. Découvrez comment les poulies et engrenages peuvent modifier la direction d'une force appliquée sur un objet.

Illuminez votre vie

Matière et énergie

Participez à cette aventure passionnante dans le monde de l'optique. Voyez autour des coins et à travers les murs! Illuminez certaines parties de votre corps et découvrez des objets translucides. Réfléchissez la lumière et découvrez les lois de la réflexion. Apprenez comment la lumière se propage et se décompose dans les couleurs de l'arc-en-ciel. Vous manipulerez aussi des appareils d'optique (périscopes, jumelles et kaléidoscopes).

Roches et fossiles : faites d'une pierre deux coups!

Systèmes de la terre et de l'espace | Bénévoles requis

Voici l'occasion de devenir un géologue en herbe! Vous explorerez les concepts de la formation minérale, du cycle des roches et de la fossilisation. Examinez les roches ignées, les roches sédimentaires et les roches métamorphiques. Découvrez de quelle façon les minéraux sont utilisés dans la vie de tous les jours. Fabriquez votre propre fossile et visitez des volcans de l'intérieur!

BOOK ONLINE AND SIGN UP TO RECEIVE STEM ACTIVITIES IN OUR E–NEWSLETTER AT WWW.SCIENTISTSINSCHOOL.CA

GRADE FIVE WORKSHOPS

Fee: $195.00

Maximum 30 students/workshop

Adventures In The Bone Zone

Special Interest

Combined Grade Content 4-8 | Volunteers Required

Join this ecological adventure and dissect an owl pellet, use magnifying glasses to sort and identify bones and assemble a rodent skeleton. Examine a variety of mammalian skulls to determine species and explore similarities and differences between herbivores and carnivores.

Body Works

Life Systems

Design and build a kidney system. Identify bone structures from X-rays. Use stethoscopes to locate and measure your heart rate. Students will explore these fascinating systems within the human body: digestive, excretory, respiratory, circulatory, nervous, and musculoskeletal.

Energy: The Power To Change

Matter and Energy

Discover where energy comes from, different forms of energy and how energy is transferred or transformed. Identify energy stored in household objects, investigate how to launch a ping pong ball into space and discover how the energy in your body can power wind-up toys. Discuss renewable and non-renewable energy sources. Investigate insulation and explore the use of solar panels!

Fractions In Action

Mathematics | Combined Grade Content 4-5

Puzzle through fraction problems and learn how to read and compare fractions. Create a unique design and solve puzzles with fractions in mind. Use manipulatives to explore mixed numbers and improper fractions.

Math Builders: Math From The Ground Up

Mathematics | Combined Grade Content 5-6

Create a company and win a lucrative building contract! Precise measurements and team participation will win you points. Learn to estimate, calculate area and perimeter, and use decimals to select and cost flooring. Plan and build a structure with walls strong enough to withstand an unnatural disaster!

May The Force Be With You

Structures and Mechanisms

Join our engineering team to learn how structures resist the forces acting on them! Explore which forces are important in designing and building a structure. Investigate centre of gravity and learn its importance in structural design. Take on the challenge of designing, building and testing a freestanding structure!

What In The World Is Matter?

Matter and Energy

Explore solids, liquids, gases and changes in state! Discover the difference between physical and chemical changes while making various chemical reactions. Determine the identity of the mystery compound using your chemical intuition, some crafty experimentation and clues gathered during this chemical adventure.

"This workshop touches on so many curriculum expectations. I didn't think it was possible to cover so much in such a short time. With the hands-on activity centres, I know that their learning will stick. I couldn't be more pleased!"

"Another drop and we'll figure out the substance!"

ATELIERS POUR 5E ANNÉES

Prix d'un atelier : 195,00 $

Maximum de 30 élèves/atelier

Aventures dans le monde des os

Intérêt spécial | Contenu pour classes combinées 4e- 6e

Participez à cette aventure écologique et disséquez la pelote de réjection d'une chouette. Utilisez une loupe afin de trier et d'identifier les os, puis assemblez le squelette d'un rongeur. Examinez divers crânes de mammifères afin de déterminer les espèces; puis, établissez les ressemblances et les différences entre les herbivores et les carnivores.

Le corps humain

Systèmes vivants

Concevez et construisez un système rénal! Identifiez les structures osseuses à partir de radiographies! Utilisez un stéthoscope pour localiser et mesurer une fréquence cardiaque! Les élèves exploreront ces fascinants systèmes du corps humain : appareil digestif, appareil excréteur, appareil respiratoire, appareil locomoteur, système circulatoire et système nerveux.

Que la force soit avec toi!

Structures et mécanismes

Joignez-vous à notre équipe d'ingénieurs afin d'apprendre comment les structures résistent aux forces qui s'exercent sur elles! Découvrez les forces importantes dont il faut tenir compte lors de la conception et de la construction d'une structure. Voyez en quoi consiste un centre de gravité et apprenez son importance lors de la conception structurale. Relevez le défi de concevoir, de construire et de mettre à l'essai une structure autoportante!

Qu'est-ce que la matière?

Matière et énergie

Explorez les solides, les liquides et les gaz, ainsi que les modifications d'état. Découvrez les différences entre les modifications physiques et chimiques tout en expérimentant diverses réactions chimiques. Identifiez la substance mystère à l'aide de votre intuition de chimiste, de quelques expériences astucieuses et d'indices recueillis durant cette aventure dans le monde de la chimie.

BOOK ONLINE AND SIGN UP TO RECEIVE STEM ACTIVITIES IN OUR E–NEWSLETTER AT WWW.SCIENTISTSINSCHOOL.CA

GRADE SIX WORKSHOPS

Fee: $195.00
Maximum 30 students/workshop

Adventures In The Bone Zone

Special Interest
Combined Grade Content 4-8 | Volunteers Required
Join this ecological adventure and dissect an owl pellet, use magnifying glasses to sort and identify bones and assemble a rodent skeleton. Examine a variety of mammalian skulls to determine species and explore similarities and differences between herbivores and carnivores.

Air And Flight

Structures and Mechanisms
Soar as you explore the science behind powered and non-powered flight! Discover the properties of air and the principles of flight. Explore the forces of flight by coordinating parachute drops, finding the best wing design and angle of attack for maximum lift, and discovering the correct mechanics of propeller construction.

Classy Critters

Life Systems
Explore biodiversity first-hand! Create order from the vast diversity of living things. Examine the microscopic world of protists and monerans and uncover similarities and differences of real macroscopic specimens of insects, invertebrates and vertebrates. Compare important connections between species and classify them according to specific characteristics.

Electricity: Get Charged

Matter and Energy
Explore the nature of electricity, its generation and use. Investigate how static electricity makes objects move. Design and build series and parallel circuits and learn how a house is wired. Test conductors, insulators and switches. Explore electro-magnets and make batteries.

"My first propeller design is ready to test!"

Math Builders: Math From The Ground Up

Mathematics | Combined Grade Content 5-6
Create a company and win a lucrative building contract! Precise measurements and team participation will win you points. Learn to estimate, calculate area and perimeter, and use decimals to select and cost flooring. Plan and build a structure with walls strong enough to withstand an unnatural disaster!

"Exploring how to close a circuit is fun!"

ATELIERS POUR 6E ANNÉES

Prix d'un atelier : 195,00 $
Maximum de 30 élèves/atelier

Aventures dans le monde des os

Intérêt spécial | Contenu pour classes combinées 4e- 6e
Participez à cette aventure écologique et disséquez la pelote de réjection d'une chouette. Utilisez une loupe afin de trier et d'identifier les os, puis assemblez le squelette d'un rongeur. Examinez divers crânes de mammifères afin de déterminer les espèces; puis, établissez les ressemblances et les différences entre les herbivores et les carnivores.

Des bestioles avec de la classe

Systèmes vivants
Étudie la biodiversité! Établis un classement à partir de la vaste diversité des êtres vivants. Examine le monde microscopique des protistes et des organismes unicellulaires, et découvre les similitudes et différences entre de vrais spécimens macroscopiques d'insectes, d'invertébrés et de vertébrés. Compare les liens importants entre les espèces et classe ces dernières selon des caractéristiques spécifiques.

L'air et le vol

Structures et mécanismes
Prenez votre envol et explorez l'aspect scientifique des vols motorisés et non motorisés. Vous aurez l'occasion de découvrir les propriétés de l'air et les principes du vol. Examinez les forces qui s'appliquent au vol en coordonnant des parachutages. Découvrez aussi la meilleure conception pour des ailes et le meilleur angle d'attaque pour une poussée maximale, ainsi que la mécanique appropriée pour la construction d'une hélice.

L'électricité : un sujet électrisant!

Matière et énergie
Explorez la nature de l'électricité, sa production et son utilisation. Découvrez comment l'électricité statique fait déplacer les objets. Concevez et assemblez des circuits en parallèle et en série. Apprenez de quelle façon sont posés les fils d'une maison. Testez des conducteurs, des matériaux isolants et des interrupteurs. Expérimentez les électro-aimants et fabriquez des piles.

BOOK ONLINE AND SIGN UP TO RECEIVE STEM ACTIVITIES IN OUR E–NEWSLETTER AT WWW.SCIENTISTSINSCHOOL.CA

GRADE SEVEN WORKSHOPS

Fee: $195.00

Maximum 30 students/workshop

Adventures In The Bone Zone

Special Interest

Combined Grade Content 4-8 | Volunteers Required

Join this ecological adventure and dissect an owl pellet, use magnifying glasses to sort and identify bones and assemble a rodent skeleton. Examine a variety of mammalian skulls to determine species and explore similarities and differences between herbivores and carnivores.

Close Encounters Of A Chemical Kind

Matter and Energy

Discover pure substances and mixtures! Explore factors affecting solubility with different solutes and solvents, and enter a race to explore the rate of dissolution of a solid. Join the 'Scientists in School Oil Company' as a research chemist and use your knowledge to separate the components of an oil sand and mitigate an oil spill disaster!

Engineering Challenges

Structures and Mechanisms

Design and build a functioning cantilever able to withstand a substantial load. Investigate how to fortify beam, truss, arch and suspension bridges. Join a class-wide challenge to build a truss bridge resistant to static and dynamic loads and internal forces using only newspaper and masking tape!

Hot Stuff!

Earth and Space Systems

Join our Research and Development team at the 'Scientists in School Toy Company'. Challenge yourself to discover the secret workings behind a candle-powered putt putt boat. Analyze how conduction, convection and radiation work together to propel these boats. Investigate the properties of matter, how the particle theory explains changes in state, and how energy transformations keep things moving!

Math Is My Business!

Mathematics | Combined Grade Content 7-8

Money is the name of this game. Create your own bank account and earn cash as you learn about fractions, percentages, decimals and more math skills. Based on theoretical probability data, select a sports team for the playoffs then watch it perform on game day. Invest your hard-earned money in low, medium and high-risk equity then calculate your portfolio performance.

"Pneumatics rock!"

"What an amazing workshop. I have never seen more students engaged and motivated to learn science! I could hear gasps of excitement as a new discovery was made or when a student had an 'aha' moment."

"How can we make our bridge stronger?"

GRADE EIGHT WORKSHOPS

Fee: $195.00

Maximum 30 students/workshop

Adventures In The Bone Zone

Special Interest

Combined Grade Content 4-8 | Volunteers Required

Join this ecological adventure and dissect an owl pellet, use magnifying glasses to sort and identify bones and assemble a rodent skeleton. Examine a variety of mammalian skulls to determine species and explore similarities and differences between herbivores and carnivores.

Cell Explorers: Investigating Cell Structure And Function

Life Systems

Become a cell biologist and examine a variety of plant and animal cells using compound microscopes and a videoscope. Examine your own cheek cells and other human body cells to determine their structure. Make wet mounts of plant cells and compare their structure to animal cells. Get absorbed in the study of osmosis and, if the season permits, explore pond water samples for living organisms.

Fluid Power

Matter and Energy

Let the ideas flow as you explore fluids and their application in mechanical systems! Use hydrometers to determine relative density, race liquids to investigate viscosity and explore buoyancy. Move a load with dump trucks to compare hydraulic and pneumatic systems and analyze the compressibility of fluids. Explore the magnification of power achieved in hydraulic systems.

Math Is My Business!

Mathematics | Combined Grade Content 7-8

Money is the name of this game. Create your own bank account and earn cash as you learn about fractions, percentages, decimals and more math skills. Based on theoretical probability data, select a sports team for the playoffs then watch it perform on game day. Invest your hard-earned money in low, medium and high-risk equity then calculate your portfolio performance.

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SCIENTISTS IN SCHOOL™

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PARTNERS IN STEM

Across our organization we are dedicated to engaging children, teachers and families through high-quality STEM enrichment. As a charity, donors help us to subsidize the cost of our 24,872 annual classroom workshops by approximately 15%, and provide over 2,000 complimentary workshops to schools serving low-income communities.

CATALYST

Natural Sciences and Engineering Research Council of Canada - TD Friends of the Environment Foundation

INNOVATION

Amgen Canada - John and Deborah Harris Family Foundation - Nuclear Waste Management Organization
Ontario Power Generation - Toronto Pearson International Airport

IMAGINATION

ArcelorMittal Dofasco - General Motors Canada - McMillan LLP - Superior Glove Works Ltd. - TELUS

DISCOVERY

Alectra Utilities - Aviva Community Fund - Cadillac Fairview - CAE - Canadian Nuclear Safety Commission
Cameco Corporation - Carolyn Sifton Foundation - Celestica - Hamilton Community Foundation - MilliporeSigma
Modern Niagara - Niagara Community Foundation - Pendle Fund at the Community Foundation of Mississauga
Purdue Pharma - Society of Petroleum Engineers Canadian Educational Foundation - S.M. Blair Family Foundation
Syngenta Canada Inc. - Systematix Inc. - The McLean Foundation

EXPLORATION

Ajax Community Fund at Durham Community Foundation - Brant Community Foundation - Cajole Inn Foundation
City of Brantford - Community Foundation Grey Bruce - Dwight and Karen Brown Family Fund – Ottawa
Community Foundation - Elexicon Energy (Formerly Veridian Connections) - LabX Media Group Charity Fund
at the Huronia Community Foundation - Siemens Millitronics Process Instruments - The Community Foundation
of Orillia and Area - The County of Wellington - The Source - The Township of Tiny
Whitby Mayor's Community Development Fund

SCIENTISTS IN SCHOOL
SCIENTIFIQUES À L'ÉCOLE