

EUREKA! FESTIVAL

SCIENCE HERE, THERE AND EVERYWHERE!

2nd edition! ➤ **Free admission**

Friday, June 13 - 10 a.m. to 6 p.m.

Saturday, June 14 - 11 a.m. to 9 p.m.

Special program - 9 p.m. to midnight

Sunday, June 15 - 11 a.m. to 6 p.m.

2008

On the Quays of the Old Port
and at the Montréal Science Centre

www.eurekafestival.ca

An initiative of *Montréal,*
ville apprenante, de savoir
et d'innovation of the



Organized by



With financial support from





EUREKA! FESTIVAL

WHEN SCIENCE BECOMES ...



- SPECTACULAR!** Science Takes the Stage
- CREATIVE!** Concocting Science workshops
- FUN!** Science at Play
- FANTASTIC!** Troubadour Science
- INSPIRING!** Ongoing activities
- AMAZING!** Events you won't want to miss
- ENLIGHTENING!** Let's Talk Science



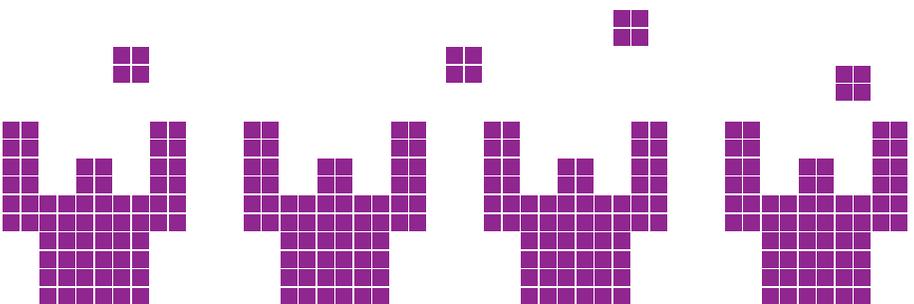
Science will be here, there and everywhere –
come make some scientific discoveries yourself!

CONTEST

Win a trip for two to James Bay

courtesy of 

The contest is for secondary school students only. Entry forms and rules are available at the Eureka! Festival information booth.



WELCOME

Montréal celebrates science! It's an outdoor science extravaganza on the Quays of the Old Port and at the Montréal Science Centre. Welcome to the second edition of the Eureka! Festival, one of the first science festivals for the general public in the area, and the perfect opportunity to nourish, tickle and stimulate your neurons!

After attracting 43,000 visitors during its first edition, the Eureka! Festival is back with an even more varied and exciting program. Once again this year the focus will be on all facets of science and innovation in Montréal. And who is better placed to appreciate them than you, surrounded by them every day?

This year Eureka! features 100 fun activities for all ages: unusual workshops to spark your curiosity, experiences to knock your socks off, electronic music to make your hair stand on end, fascinating technological demonstrations and electrifying or even explosive shows! But above all, lots of opportunities to meet and talk with inspiring individuals who "do" science in Montréal!

On June 13, 14 and 15, science will be here, there and everywhere – come on down and make some scientific discoveries yourself!

ACTIVITIES WILL BE HELD RAIN OR SHINE!



MARC-ANDRÉ COALLIER,
FESTIVAL HOST AND SPOKESPERSON



An initiative of *Montréal, ville apprenante, de savoir et d'innovation* of the

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SCIENCE TAKES THE STAGE > SHOWS

A main stage where the spotlight is on science, with shows, theatre and even magic!

41

➤ **Fire and Ice**

PRESENTED BY MAD SCIENCE

Length: 45 min

Bubbling potions and evaporating ice ... a show that explores atmospheric pressure and examines the three states of matter. And to top it all off, a rather "explosive" finale!

In English: Friday 11 a.m., Saturday 1 p.m. and Sunday 11 a.m.

In French: Friday 5 p.m.

Show – For all

41

➤ **Great Scientific Inventions**

PRESENTED BY LES NEURONES ATOMIQUES

Length: 60 min

A fascinating look at the inventions that have shaped the history of science, from Lavoisier's discoveries to the first electrolysis by Carlisle and Nicholson (1800) and the development of the first laser by Theodore Maiman. Prepare your neurons for some *explosive* excitement.

Friday 1 p.m.

Show – For all – In French

41

➤ **The Invisible World**

PRESENTED BY THE SCIENCE AND TECHNOLOGY ETHICS COMMITTEE (CEST)

Length: 60 min

If an apple were the size of the Earth, nanoparticles would be the size of an apple. They may be invisible, but they're real! What development issues do they raise for our society? Nanotechnologies and the infinitely small pose some huge questions!

Friday 3 p.m., Saturday 7 p.m. and Sunday 3 p.m.

Theatre – For all – In French

41

➤ **Science or Magic?**

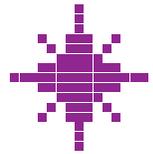
PRESENTED BY DANIEL COUTU

Length: 50 min

Meet the coolest magician in town! Illusionist and science buff Daniel Coutu takes audiences on an extraordinary journey. Discover the mysteries of atmospheric pressure, sound, colour and gravity through a series of magical, scientific demonstrations.

Saturday 11 a.m.

Show – For all – In French



41

➤ **Math Show**

PRESENTED BY FRÉDÉRIC GOURDEAU

Length: 50 min

An entertaining lecture combining humour, mathematics and multimedia. Université Laval math professor Frédéric Gourdeau takes a look at everyday mathematical applications, with videos and skits. Themes featured demonstrate how math truly is part of our daily life.

Saturday 3 p.m.

Show – Recommended for ages 10 and up – In French



© Matilde Matkovic

41

➤ **The Magic of Chemistry**

PRESENTED BY YANNICK BERGERON

Length: 50 min

What does “chemistry” make you think of? How about colour, smoke, energy, explosions, collisions, fire and lots more? Our wild and wonderful host reveals the science behind some spectacular reactions.

Saturday and Sunday 5 p.m.

Show – For all – In French



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41

➤ **The Magic of Science, the Science of Magic**

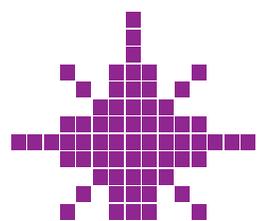
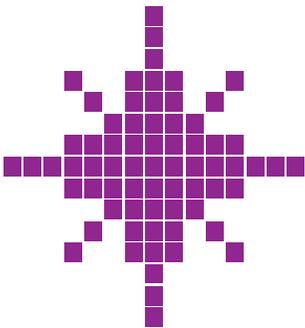
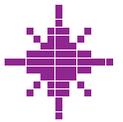
PRESENTED BY NATHANIEL LASRY

Length: 50 min

A magic formula? Or a physics formula? Stretching out on a bed of nails, optical illusions ... all kinds of magic tricks depend on physical principles. Come learn about how science makes magic!

Sunday 1 p.m.

Show – For all – In French



CONCOCTING SCIENCE > WORKSHOPS

Do you have the soul of an artist but the brain of a scientist? Grab your brushes, beakers, scissors, pens and test tubes and let your creativity soar as you think about and experiment with different ideas.

37

➤ **Chemical Reactions**

LES NEURONES ATOMIQUES
Length: 60 min

Concoct potions worthy of the maddest scientists! They bubble, fume, hiss and pop ... enjoy some fascinating demonstrations on the magic of chemistry.

Friday 10 a.m.

Recommended for ages 7-12 – Bilingual

37

➤ **Marbles, Straws and Strange Mixes!**

PRODUCTIONS SUPERMUSIQUE
Length: 60 min

In this workshop on current music, sound effects and improvisation, you can create and perform your own composition with an orchestra conductor!

Friday and Saturday 12 p.m. and Sunday 4 p.m.

Recommended for ages 7-12 – Bilingual

37

➤ **Les Cerfs-volantstylistes**

KITE-MAKING WORKSHOP
Length: 60 min

Come take to the air with the masters of the wind. Start by drawing, colouring and creating your own images on fabric. Add a frame and ribbons, and your kite is ready for takeoff.

Friday 2 p.m., Saturday 6 p.m. and 7 p.m.

Recommended for ages 7-12 – Bilingual



37

Water for the World

ENGINEERS WITHOUT BORDERS

Length: 60 min

Bring along your engineering ideas and take part in a wonderful humanitarian adventure, all about access to water. Learn about water treatment technology and the issues linked to drinking water around the globe.

Friday 4 p.m., Saturday and Sunday 2 p.m.

Recommended for ages 12 and up – Bilingual

37

Air and Lift

LES NEURONES ATOMIQUES

Length: 60 min

Does air weigh anything? How does an aircraft wing provide lift? After a brief look at experiments by Otto von Guericke, learn about the vacuum of space with bell jars.

Saturday 4 p.m. and Sunday 12 p.m.

Recommended for ages 7-12 – Bilingual

36

Scientific Chic!

PRODUCTIONS SONNE – HOSTED BY CHRISTIAN LAPORTE

Length: 60 min

Come imagine the scientific fashions of the future and present your ready-to-wear creations to stupendous applause! Do crowds make you nervous? Then channel your creative potential and discover the art of recycling by making jewellery from computer parts!

Everyday 11 a.m., 1 p.m., 3 p.m. and 5 p.m.

For all – Bilingual

40

Let's mix! DJ-ing & VJ-ing Workshops

SOCIÉTÉ DES ARTS TECHNOLOGIQUES [SAT]

How would you like to know the secrets of super DJs or VJs? Learn the basics of audio and video mixing with these artists from the Montréal music scene. Your images and sound mixes could be presented at the [MixSessions] to be held on Saturday from 8 p.m. to midnight at the tip of the Quay!

Ongoing

For all – Bilingual



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SCIENCE AT PLAY!

An invitation to jump head-first – or bottom first – into science!

46

➤ **Jumpai**

ACROBATIC BUNGEE TRAMPOLINE



Defy the laws of gravity on the Jumpai acrobatic bungee trampoline. It's an "uplifting" experience! The Jumpai consists of four separate trampolines topped with a stainless steel structure, allowing you to bounce and somersault to your heart's content. With bungees attached to your harness, you can "soar" up to 9 metres high!

But there's a catch! To be allowed onto the Jumpai on Saturday and Sunday, you first have to succeed at a scientific challenge set by L'île du savoir! Come to the Wow Challenge tent, just next to the Jumpai, for more info!

At all times – For ages 4 and up

35

➤ **Kids' Corner**

A play area where kids ages 4 to 7 can jump into the wonderful world of science!

At all times

At the tip of the Quay

➤ **Troubadour Science – South Stage**

Circus like you've never seen it before! The Frackdance troupe will be performing seemingly impossible circus numbers! Come learn how circus techniques are also based on the laws of physics and mathematical equations.

1 routine every 60 min

In front of the Science Centre

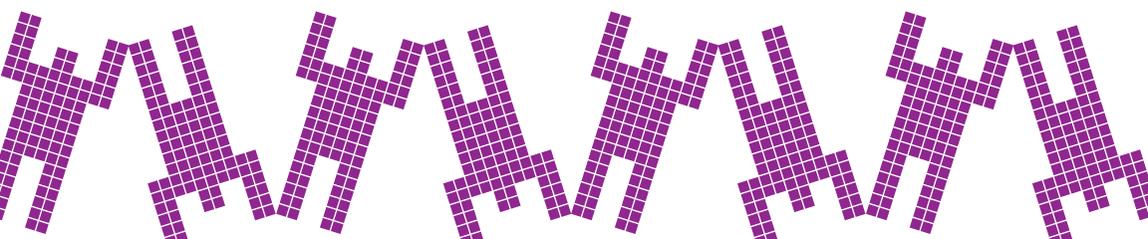
➤ **Troubadour Science – North Stage**

Moveable shows, entertainment, stories, magical adventures, concerts, juggling, circus routines, dancing robots, mimes ... a whole carnival of fascinating street demonstrations offering a glimpse into the artistic side of science!

All day long

Featuring:

- Marie Eve Lamoureux Laprise and Serge Bergeron in a surprising juggling act
- Danielle Brodeur, a "robot" on a Segway
- Jean-Philippe Goulet and l'Herbe rouge perform music using technology
- Louis Lavoie and his impersonations of famous scientists
- An "out of this world" band featuring the Science Centre's educators
- The Frackdance circus troupe
- Mike, the famous festival artist's agent



ONGOING ACTIVITIES

Here's your chance to meet researchers, professionals and future scientists. They come in different shapes and sizes, but all of them are advancing the cause of science right here! You can experiment, create, observe and discuss with them and enjoy almost fifty inspiring hands-on activities.

01

Canadian Space Agency

A UNIVERSE TO DISCOVER

Got your head in the stars? So do they! Let the Canadian Space Agency team be your guide to Canadian astronauts' missions, satellites, robotics and astronomy. The Universe is within your grasp.

For all – Bilingual

02

Association Géocaching Québec

GEOCACHING 101

Ready for a treasure hunt, 21st-century style? You and your whole family can set off on an adventure and learn how to use a GPS receiver to find some hidden caches. In this case, technology can get you up and off the couch!

For all – Bilingual

03

École de technologie supérieure

SUNSHINE POWER OF ÉCLIPSE

What's that emerging from the shadows? It's Éclipse, a solar-powered car. Its designers will be happy to demonstrate it, explain how it works and answer your questions.

For all – Bilingual

04

SAE Robotique

École Polytechnique de Montréal

A LIFE-SAVING ROBOT

Come meet the first robot created by the SAE Robotique team. It's an odd-looking creature, but it could help rescue teams save victims when the walls come tumbling down.

For all – Bilingual

05

École de technologie supérieure

EVOLUTION, FOR THE LONG RUN!

Glug, glug, glug ... not for me, thanks! I can make the trip from Montréal to Quebec City on just 400 ml of gas. Come chat with the designers of this supremely economic vehicle and learn all the tricks they used to save on fuel.

For all – Bilingual

06

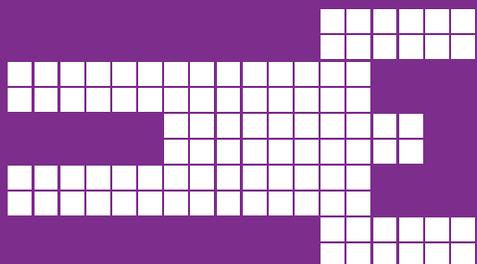
École de technologie supérieure

START YOUR ENGINES!

THE FORMULA SAE

Every year, students design a very impressive racing car. Come get a close-up look at this mini-Formula 1 car and meet the speed demons who created it.

For all – Bilingual



ONGOING ACTIVITIES

07

Hydro-Québec

INNOVATING, PROTECTING,
SUSTAINING

Are technology, development and the environment a good mix? Come decide for yourself. You can also get a look at a virtual electric vehicle, learn about how electricity is transported, remote sensing by laser, simulation tools and all kinds of other fascinating technology.

For all – Bilingual

08

École de technologie supérieure

S.O.N.I.A. THE SUBMARINE

Learn about modern robotics and how it applies to underwater exploration. But you don't have to get wet – S.O.N.I.A., an autonomous underwater robot controlled by artificial intelligence, carries out complex tasks with no need for human intervention.

For all – Bilingual

09

Sûreté du Québec

CRASH! INVESTIGATE!

SQ technicians are on the scene. With their specialized tools, they determine the causes of a car crash as you watch, and talk about their investigation techniques.

Closes at 6 p.m. on Saturday

For all – Bilingual

10

JB Martin

ULTRA HIGH-PERFORMANCE
TEXTILES

Textiles are everywhere – in aircraft, windmills, bicycles, F1 cars and hockey masks. From carbon fibre to basalt fibre and Kevlar, come learn about the uses of textiles all around us every day. You'll be amazed!

For all – Bilingual

11

TELUS

SHARE. WATCH. LISTEN. PLAY.
Discover a world of entertainment, information and messaging that can go with you anywhere, right in the palm of your hand.

For all – Bilingual

12

Urgences-Santé

PARAMEDICS ON DUTY!

Here they are in flesh and blood, the paramedics who save lives. They'll explain what happens on the way to the hospital, and their computer-assisted dispatching system. You can compare a modern ambulance with one from 1930.

For all – Bilingual

13

L'île du savoir and the CRÉ de Montréal

OPÉRATION COCO-LOGIX

Who says science has to be complicated? Grade 5 and 6 students show you how learning about science and technology can be a blast. Not just one, not just two, but over thirty exciting experiments, all waiting for you!

Friday 10 a.m. to 3 p.m. only

For all – Bilingual

13

L'île du savoir and the CRÉ de Montréal

SCIENCE + TECHNOLOGY =
PASSION!

Come share the enthusiasm and passion of some playful scientists. But watch out – it's catching! You'll have a great time examining, touching and trying out science and technology in some unusual ways!

Starts at 3 p.m. on Friday

For all – Bilingual

14**Les Scientifines****GET A LOOK AT THIS!**

Would you like a pair of 3D glasses? A kaleidoscope for your home? You can make them! Check out our workshops, games, optical illusions and binocular vision challenges.

For all – Bilingual

15**4-H Clubs of Quebec****THE ECO-LUNCH BOX**

What will we do with all our trash once our dumps are full? Come play this game and learn about the problems caused by disposable containers, especially in lunch boxes.

For all – Bilingual

16**École nationale d'aérotechnique****CARGO PLANE CONTEST****AND MODEL HELICOPTER**

The Avion Cargo SAE-ENA team will explain how to make a remote-controlled competition aircraft using aeronautical principles. Climb aboard the ENA model and learn the basics of flying an aircraft.

For all – Bilingual

17**Concordia University – Faculty of Arts and Science****ORIGAMI, SCIENCE AND TECHNOLOGY**

Explore the chemical and physical world around us. Try your hand at the ancient art of paper folding (origami) and learn about classical mechanics, electricity and magnetism.

For all – Bilingual

18**École Fernand-Seguin****THE JOYS OF ELECTRONICS**

Learn the basics of electronics as you put together some increasingly complex electronic circuits. It's an electrifying challenge for anyone looking for new "contacts"!

Closes at 3 p.m. on Friday and

at 6 p.m. on Saturday

For all – Bilingual

19**Conseil du Loisir Scientifique de la région Métropolitaine****ALL ABOUT ELECTRICITY**

Come learn some electrifying new facts about ... electricity. How it is made and used, series and parallel circuits, the conductivity of different liquids, the environmental impact of hydroelectric dams, and more. It's a powerful experience that's bound to spark your interest!

For all – Bilingual

20**École des métiers de l'aérospatiale de Montréal (ÉMAM)****AIRCRAFT FACTORY**

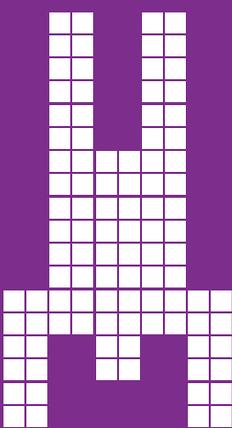
Do you dream of looking down on the world? Fascinated by aerospace? Meet teachers, share their enthusiasm, add your skills and get ready for take-off. You can make your own miniature airplane.

For all – Bilingual

21**Folie Technique – École Polytechnique de Montréal****WILD AND CRAZY SCIENCE!**

Do you enjoy strange experiences? You've come to the right place! Start by making (and tasting) your own nitrogen-frozen ice cream. One scoop or two? Then take on the challenge of building a spaghetti tower, try the spinning platform and push things around with a sound gun!

For all – Bilingual



FESTIVAL SITE MAP



40

STAGE AT
THE END OF
THE QUAY



WORKSHOP

37

KID'S
CORNER

35

38

36

WORKSHO

01 Canadian Space Agency

02 Association Géocaching Québec

03 École de technologie supérieure
ÉCLIPSE

04 SAE Robotique
École Polytechnique de Montréal

05 École de technologie supérieure
ÉVOLUTION

06 École de technologie supérieure
FORMULE SAE

07 Hydro-Québec

08 École de technologie supérieure
S.O.N.I.A.

09 Sûreté du Québec

10 JB Martin

11 TELUS

12 Urgences-santé

13 L'île du savoir and the CRÉ de Montréal

14 Les Scientifines

15 4-H Clubs of Quebec

16 École nationale d'aérotechnique

17 Concordia University
Faculty of Arts and Science

18 École Fernand-Seguin

19 Conseil du Loisir Scientifique
de la région Métropolitaine



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20 École des métiers de l'aérospatiale de Montréal (ÉMAM)

21 Folie Technique
École Polytechnique de Montréal

22 TECHNOCompétences

23 Pharmabio

24 Cœur des sciences – UQAM

25 Agence Science-Pressé

26 Association francophone pour le savoir (Acfas)

27 Green Crop Network
McGill University

28 Environnement JEUnesse

29 Extrada

30 Groupe uni des éducateurs-naturalistes et professionnels en environnement (GUEPE)

31 Génome Québec

32 UNICEF Québec

33 Hema-Québec

34 Institut de technologie agroalimentaire (ITA)

35 Kid's Corner



42

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SCIENCE
THE STAR

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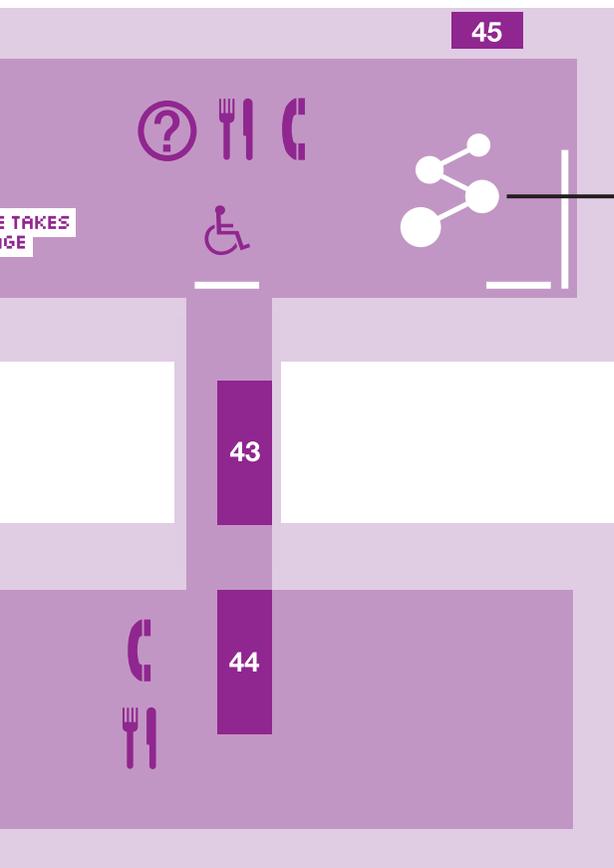
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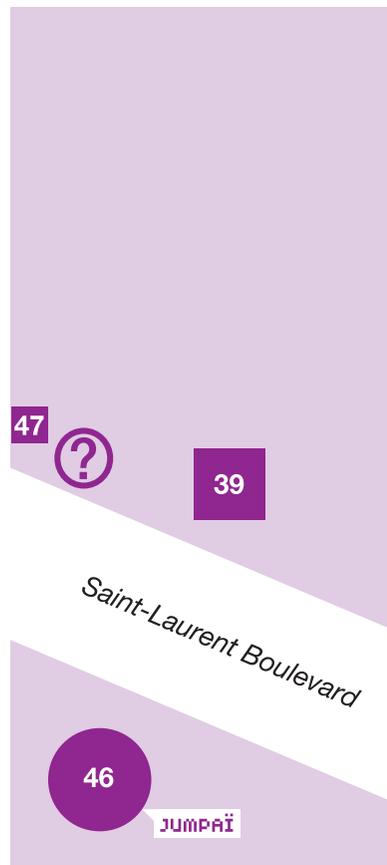


- 36** Scientific Chic!
- 37** Concocting Science Workshops
- 38** Biodôme, Botanical Garden, Planetarium and Insectarium
- 39** Les Belles Soirées de l'Université de Montréal
- 40** Société des arts technologiques (SAT)
- 41** Science Takes the Stage
- 42** Département de Technologie physique – Cégep André-Laurendeau
- 43** Collège Rosemont
- 44** McGill University, Université de Montréal, Université de Sherbrooke / Centre for Interdisciplinary Research in Music, Media and Technology (CIRMMT)
- 45** SPG Hydro International
- 46** Jumpai – Acrobatic Bungee Trampoline
- 47** Meet Lena

 Toilets	 Parking	 Festival info
 Restaurants / Snack bars	 Telephone	 Access for disabled visitors



Montréal
Science
Centre



Quays Promenade

Saint-Laurent Boulevard

JUMPAÏ

ONGOING ACTIVITIES

22

TECHNOCompétences

MY TECHNO CAREER.COM

Fire up your keyboards and create your own Website. Use technology to build a site that expresses your personality. Be original, add interesting content and images and show what you can do.

For all – Bilingual

23

Pharmabio

A SUSPICIOUS DEATH
IN THE LAB

A mystery! It's up to you to solve this suspicious death, with the help of scientists in the field. Step into the world of pharmaceuticals and biotechnology and try some surprising scientific experiments! Did the butler do it?

For all – Bilingual

24

Cœur des sciences – UQAM
GEOLOGIST FOR A DAY

Roll up your sleeves and become a geologist, thanks to some interactive hardware. Learn how to identify rocks and minerals, weigh them, measure their magnetism, colour, fluorescence, radioactivity... there's a lot to learn! You'll have to use your observation and detective skills.

For all – Bilingual

25

Agence Science-Pressé
BLOGGERS AT WORK

Have you got nimble fingers and a brain full of science questions? Check out this on-line site where you can chat about scientific topics, add your comments and ask everything you've always wanted to know.

For all – French only

26

**Association francophone
pour le savoir (Acfas)**

WHAT ARE RESEARCHERS
LOOKING FOR?

What are the new worlds they are working so hard to find? How do they manage not to get lost in this uncharted territory? Here's your chance to ask some real live researchers yourself.

For all – Bilingual

27

**Green Crop Network –
McGill University**

BE A GREEN RESEARCHER

With researchers from the Green Crop Network, learn how bacteria invisible to the naked eye can influence the world climate and help to feed the planet.

For all – Bilingual

28

ENvironnement JEunesse

THERE'S GOLD IN THAT
GARBAGE!

As Professor Yvon Jetté explains, your garbage can is a gold mine, and the 4Rs are the solution to the problem of overflowing garbage dumps. He'll be happy to convince you!

For all – Bilingual

29

Extrada

SCIENCE GOES DANCING

Centre of mass, proprioception, anthropometrics... what does it all mean? Let some professional dancers explain these principles and explore them yourself. It's a whole new way to discover your inner dancer!

For all – Bilingual

30

**Groupe uni des éducateurs-
naturalistes et professionnels
en environnement (GUEPE)**

DISCOVER NATURE IN THE CITY!

Come on a journey with a GUEPE nature guide, without leaving your seat. Discover all the unexpected wildlife hidden away in Montréal's major parks. Remarkable eco-systems and little secrets to brighten up your hikes and picnics this summer!

For all – Bilingual

31**Génome Québec****THE MYSTERIOUS GNOME CASE**

Who murdered the gnome during the SmallGarden family's garden party? Collect the clues and use genomics to analyze them and solve the case. A DNA expert will be on hand to explain the basics. Take the challenge and you could win a Wii console and a *Trauma Center* video game!

For all – Bilingual

32**UNICEF Québec****SPREAD THE NET**

Mosquito bites can be much more than just a bother. Did you know that they endanger about 40% of the world's population? Curious? Come see how to save lives while allowing mosquitoes to play their essential ecological role.

For all – Bilingual

33**Hema-Québec****DO YOU KNOW YOUR BLOOD TYPE?**

Are you A, B, O or AB? Negative or positive? Here's your chance to learn more about blood and the importance of giving the gift of life.

For all – Bilingual

34**Institut de technologie agroalimentaire (ITA)****LET'S MAKE YOGHURT!**

Here's your chance to see first-hand how the ingredients interact to produce the taste, appearance and consistency of your favourite yoghurt!

For all – Bilingual

38**Biodôme, Botanical Garden, Planetarium and Insectarium****MONTRÉAL'S NATURE MUSEUMS: BRIMMING WITH LIFE!**

Listen to plants, cook up a comet, attract butterflies, learn to identify insects and explore the fascinating world of frogs. No boots or butterfly nets required!

For all – Bilingual

42**Département de Technologie physique – Cégep André-Laurendeau****INTERACTIVE LASER ENGRAVING**

Lasers are used everyday, everywhere, in countless applications. Learn the hows and whys of this fascinating technology, and use a real laser to make your own engraving! May the force be with you!

For all – Bilingual – Science Centre, ground floor

43**Collège Rosemont****THE TECHNOLOGICAL HOUSE**

Step right up to the intelligent house! See how it makes the most of technological innovations, as ICTs and domotics, or home automation, become increasingly common in our living rooms, offices, kitchens and even bedrooms!

For all – Bilingual – Science Centre, 2nd floor

44**McGill University, Université de Montréal, Université de Sherbrooke / Centre for Interdisciplinary Research in Music, Media and Technology (CIRMMT)****THE SCIENCE AND TECHNOLOGY OF MUSIC**

You sing, dance and play music? We look, listen and learn. Come see how music, science and the brain come together to produce some unexpected results.

For all – Bilingual – Science Centre, 2nd floor

45**SPG Hydro International****A 21ST-CENTURY DIVING BELL**

Would you like to try a really unusual job? How about an underwater engineering consultant? Handle unique, highly sophisticated equipment, talk with real adventurers and discover the mysteries of the deep! An added attraction: the dives will be broadcast live!

For all – Bilingual – Quays Promenade, west side of the King Edward Quay

NOT TO BE MISSED!

40



➤ **SAT [MixSessions] and Ono Records perform “We are robots”**

Meet at the tip of the King Edward Quay for the coolest evening in Montréal. SAT [MixSessions] and Ono Records present “We are robots,” a visual and sound experience and a great way to discover some new urban cultures. Between the water and the sky, groove to the music and videos of Montréal’s best DJ-VJ collective. A 100% Montréal experience you won’t want to miss!

Saturday night from 8 p.m. to midnight
Recommended for ages 10 and up



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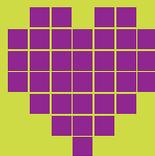


➤ **One hour on Planet Earth, with Julie Payette!**

With her head in the heavens but her feet solidly on the ground, our Quebec astronaut talks about her passion for her job. Blast off for new horizons with her and the Canadian Space Agency. Come talk with Julie Payette at the tip of the Quay. You’re bound to see stars!

Sunday from 2 p.m. to 3 p.m.
For all – In French only

© Canadian Space Agency



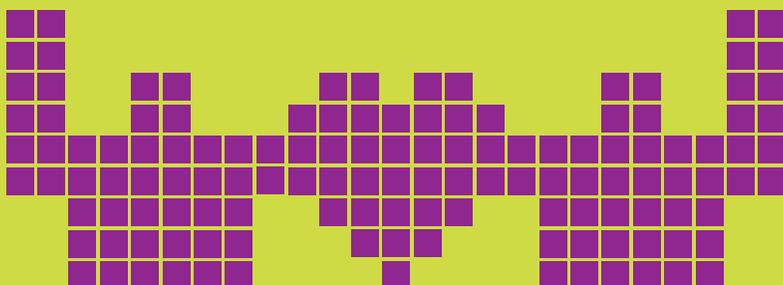
47



➤ **Meet Lena**

Lena, our hostess in flesh and chips, can talk, move and interact in real time with visitors of all ages. As our virtual hostess, she will be delighted to tell you all about the Eureka! Festival. Lena was created with Evolver software, an avatar generator. Quartz Communications markets the real-time animation tools for figures like these, which they call Virtual Human Machines (VHM).

At all times
For all – Bilingual



LET'S TALK SCIENCE! > CONFERENCES

Enthusiastic scientists talk about their jobs and their research. Look, listen and learn, ask your questions and chat with them, but be careful: their passion for science is catching!

Please note: All lectures are in French only.

39

➤ Science and Health

LES BELLES SOIRÉES DE L'UNIVERSITÉ DE MONTRÉAL

Interested in health? Some cool and enthusiastic scientists would like to introduce you to some surprising new aspects of science. A chance to enjoy some entertaining experiments and discussions.

*Length varies from 20 to 50 min
For all – In French only*

Biochemistry and Bioinformatics, Two Essential Programs for Life Sciences and Medicine

WITH PHILIPPE LAMPRON AND MARIE ROBICHAUD, DEPARTMENT OF BIOCHEMISTRY, UNIVERSITÉ DE MONTRÉAL

Purifying DNA; agarose gel electrophoresis; looking at single cells under a microscope; a phylogenetics game.

Friday 10 a.m.

Rehabilitation in Daily Life

WITH STEVE CHU YU CHEE AND SONIA BEAULIEU, DEPARTMENTS OF OCCUPATIONAL THERAPY AND PHYSIOTHERAPY, UNIVERSITÉ DE MONTRÉAL

Tests and exercises, examples of clinical cases, the anatomy of a skeleton and a look at the tools used in occupational therapy and physiotherapy clinics.

Friday 1 p.m.

Friday 3 p.m.

Chemistry for Better Water

WITH BÉATRICE GARCIA-RENAUD, DEPARTMENT OF CHEMISTRY, UNIVERSITÉ DE MONTRÉAL

What makes filtered water pure? Zoom in on the molecular level and it will all become clear!

Friday 11 a.m.

Sunday 11 a.m.

What Is Audiology? Listen Up!

WITH ISABELLE GAUTHIER, SCHOOL OF SPEECH THERAPY AND AUDIOLOGY, UNIVERSITÉ DE MONTRÉAL

A quiz, hearing tests and a look at what speech therapists and audiologists do, the tools they use and where they work.

Friday 2 p.m.

Friday 4 p.m.

Truths and Myths About Diets

WITH MARIE-ANNE LAFONTAINE AND A COLLEAGUE, DEPARTMENT OF NUTRITION, UNIVERSITÉ DE MONTRÉAL

A look at good and bad eating habits, a quiz on the nutritional value of different foods and a chance to hear about what a nutritionist does.

Friday, noon

Have You Ever Heard of the SEUR Project?

WITH ANNE LASSONDE, CO-ORDINATOR OF THE SEUR PROJECT, UNIVERSITÉ DE MONTRÉAL

A quiz on different university jobs and a look at immersion opportunities for students.

Friday: ongoing, quiz at 5 p.m.

How Do Our Brains Age?

WITH DR. YVES JOANNETTE, DIRECTOR OF THE CRIUGM

Maintaining our communication skills is one of the ways that makes ageing easier. How does the brain manage to keep these skills over the years?

Saturday 11 a.m.

LET'S TALK SCIENCE! > CONFERENCES

Does Learning Languages Keep Us Sharp as We Age?

WITH ANA INÉS ANSALDO, FACULTY OF MEDICINE, UNIVERSITÉ DE MONTRÉAL
Do bilingual and unilingual people's brains age the same way? Is it possible to learn a new language when we're old? Does learning a new language improve our cognitive health? A look at what happens to older people's cerebral plasticity when they learn a second language late in life.

Saturday 11:30 a.m.

Memory and Ageing: Good News?

WITH SVEN JOUBERT, DEPARTMENT OF PSYCHOLOGY, UNIVERSITÉ DE MONTRÉAL
What aspects of memory suffer as we age? What do we lose and what do we keep?

Saturday, noon

Physical Activity Is Good for Ageing Brains

WITH LOUIS BHERER, CRIUGM
How can we add life to our years, instead of just years to our life? It's possible to slow the brain's ageing with intellectual stimulation and physical activity and to improve our cardiorespiratory health with regular exercise.

Saturday 12:30 p.m.

Feed Your Knowledge of Nutrition

WITH CHRISTINA BLAIS, DEPARTMENT OF NUTRITION, UNIVERSITÉ DE MONTRÉAL
Measure your body composition with bioimpedance. Cooking for pleasure and health. Guess the sugar and fat content of your favourite foods.

Saturday 1 p.m.

Sunday, noon

Medicine from Plants: from Flowers to Pills

WITH DR. JEAN-LOUIS BRAZIER, FACULTY OF PHARMACY, UNIVERSITÉ DE MONTRÉAL
From curare in the jungle to the operating room! Plants manufacture very complex but very effective molecules. These gifts from nature are vital tools in drug therapy.

Saturday 2 p.m.

The Amazing Story of Aspirin: from the Sumerians to Bayer

WITH DR. JEAN-LOUIS BRAZIER, FACULTY OF PHARMACY, UNIVERSITÉ DE MONTRÉAL
The Sumerians used willow bark to relieve their headaches; today we take aspirin. Did you know that it is named for a flower? What are the links between willow, spirea and aspirin?

Saturday 3 p.m.

A Brief 5,000-Year History of Pharmacy, from Poppies to Synthetic Opioids

WITH DR. JEAN-LOUIS BRAZIER, FACULTY OF PHARMACY, UNIVERSITÉ DE MONTRÉAL
A look at the history of pharmaceuticals, from the use of poppies by the Sumerians to Sertürner's morphine and the pain-relieving opioids we use today, with a glimpse at structural chemistry and molecular pharmacology.

Saturday 4 p.m.

Video Monitoring in the Home as a Way of Supporting Elderly Patients

WITH CAROLINE ROUGIER, DEPARTMENT OF COMPUTER SCIENCE AND OPERATIONAL RESEARCH, UNIVERSITÉ DE MONTRÉAL

Saturday 5 p.m.

Tricks and Tips for Managing Anxiety from Day to Day

WITH JULIE BEAUCHAMP AND KARINE PROVENCHER, SCHOOL OF PSYCHO-EDUCATION, UNIVERSITÉ DE MONTRÉAL
Want to conquer your fears? Come meet two master's students in psycho-education and pick up some techniques for managing your anxiety. A fun Lucy-style booth straight out of a Charlie Brown comic: 5 cents for a consultation.

Saturday 6 p.m.

Digital Processing of Medical Imagery

WITH JEAN MEUNIER, DEPARTMENT OF COMPUTER SCIENCE AND OPERATIONAL RESEARCH, UNIVERSITÉ DE MONTRÉAL

Saturday 7 p.m.

The Health of Bygone Populations

WITH FANNY MORLAND, DEPARTMENT OF ANTHROPOLOGY, UNIVERSITÉ DE MONTRÉAL

Human skeletons found by archaeologists can give us all kinds of clues about people's health. We will talk about a few methods used by paleopathologists, allowing us to detect diseases (dietary deficiencies, infections, etc.) that afflicted our ancestors.

Saturday 8 p.m.

Physical Activity in Daily Life: Why and How Much?

WITH ALEXANDRE PARÉ, ÉRIC LAILY AND JEAN-PHILIPPE BRISSON, DEPARTMENT OF KINESIOLOGY, UNIVERSITÉ DE MONTRÉAL

Sunday 1 p.m.

Bio-informatics: a Key Health Research Tool

WITH MATHIEU LAJOIE, DEPARTMENT OF COMPUTER SCIENCE AND OPERATIONAL RESEARCH, UNIVERSITÉ DE MONTRÉAL

We may have sequenced the human genome, but we're still a long way from understanding it completely. Come see what bio-informatics researchers are doing to decode the 3 billion As, Cs, Gs and Ts it contains!

Sunday 2 p.m.

The Biochemical Complexity of Life, from the Ecosystem to the DNA Molecule

WITH PHILIPPE LAMPRON, DEPARTMENT OF BIOCHEMISTRY, UNIVERSITÉ DE MONTRÉAL

Life is amazingly complex. Watch a simple experiment in extracting the DNA from an onion and discover the different levels of complexity of life, from the ecosystem to the DNA molecule.

Sunday 3 p.m.

The Evolution of the Brain

WITH JEAN-FRANCOIS PFLIEGER, DEPARTMENT OF BIOLOGY, UNIVERSITÉ DE MONTRÉAL

Studying the evolution of the brain helps us better understand the workings of this complex organ. Different brain morphologies reflect the whole range of animal behaviours.

Sunday 4 p.m.

24

Meetings with Scientists

CŒUR DES SCIENCES - UQAM

Scientists open their hearts to you, talking about their research, jobs and backgrounds. Ask them all your questions and get a chance to examine, touch and even test the equipment they work with.

Length: 50 min

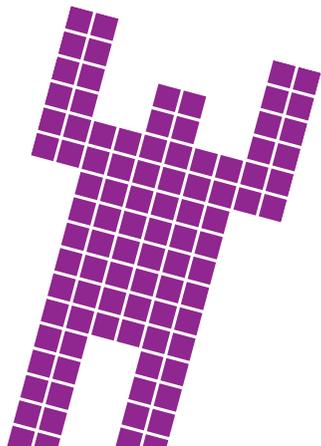
For Adults – Please note: All lectures are in French only.

Insects on Trees

WITH YVES MAUFFETTE, DEAN AND PROFESSOR OF BIOLOGY, FACULTY OF SCIENCE, UQAM

Tell me what you eat and I'll tell you who you are... and whether I have to kill you! A scientific look at insects that are harmful to trees.

Friday 1 p.m.



LET'S TALK SCIENCE! > CONFERENCES

Green Roofs

WITH ANTOINE TROTTIER, ENVIRONMENTAL SCIENCES, UQAM

With new technologies, it is becoming more and more feasible to install gardens on the roofs of public and commercial buildings in big cities like Montréal.

Friday 2 p.m.

Danger: Volcano

WITH HÉLÈNE GAONAC'H, PROFESSOR, DEPARTMENT OF EARTH AND ATMOSPHERIC SCIENCES, UQAM

What do volcanic rocks look like? Where are the most dangerous volcanoes on earth? How do scientists studying volcanoes stay safe? Join the adventure!

Friday 3 p.m.

Everything You Wanted to Know about Quebec's Windmills

WITH FRANCIS PELLETIER, PHD MECHANICAL ENGINEERING, ÉCOLE DE TECHNOLOGIE SUPÉRIEURE (ÉTS)

Where will Québec's next wind parks be located? And why? What technologies are involved? And how does a windmill work, anyway?

Saturday 1 p.m.

Cybernetic Transportation

WITH ROBERT HAUSLER, PROFESSOR OF CONSTRUCTION ENGINEERING, ÉCOLE DE TECHNOLOGIE SUPÉRIEURE (ÉTS)

What will urban transportation be like in the future? One possibility currently being explored offers a rather surprising solution: cyber transport. Curious?

Saturday 2 p.m.

Uncovering the First Traces of Life on Earth

WITH DANIELE PINTI, PROFESSOR, DEPARTMENT OF GEOLOGY, UQAM

Rocks four billion years old reveal the first forms of life on Earth. Who said rocks can't talk?

Saturday 3 p.m.

Powerful Antioxidants in Tiny Berries

WITH FANNIE MATHIEU, STUDENT, DEPARTMENT OF BIOLOGY, UQAM

Are elderberries poisonous? Definitely not. This tiny black berry, devoured by birds, is not only edible but has extraordinary antioxidant properties.

Saturday 6 p.m.

Molecular Origins of Mental Retardation

WITH SARAH JENNA, PROFESSOR, DEPARTMENT OF CHEMISTRY, UQAM

Take a microscopic worm, modify it to diminish its "mental" capacity, and it can help you understand, and even treat, mental retardation in humans.

Sunday 1 pm.

Animals Have Personalities Too

WITH DENIS RÉALE, PROFESSOR, DEPARTMENT OF BIOLOGY, UQAM

As with humans, the behaviour of animals differs between individuals. What causes these differences?

A look at the evolutionary biology of personality in our animal friends.

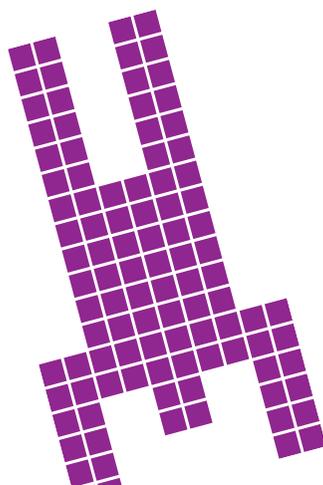
Sunday 2 pm.

Animal Pain

WITH DR ÉRIC TRONCY, PROFESSOR, FACULTY OF VETERINARY MEDICINE, UNIVERSITÉ DE MONTRÉAL

It is now recognized that animals experience pain. Why? How? One thing is certain: veterinarians have become more concerned with alleviating pain in their animal patients.

Sunday 3 p.m.

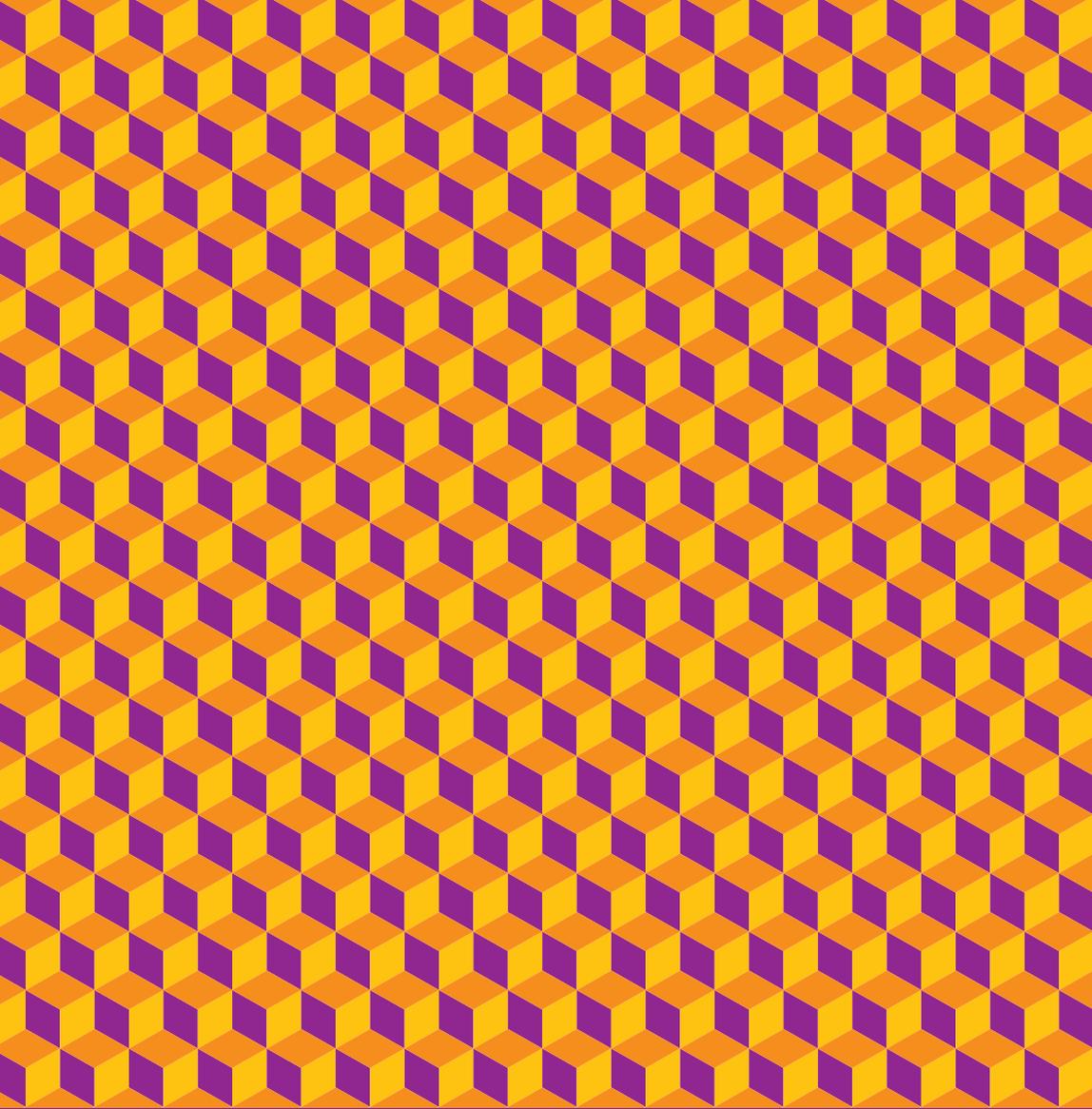


HOW ABOUT AN INNOVATION TREASURE HUNT?

Search through the exhibition rooms and technology display cases at the Science Centre and try to find these 10 technologies, fruit of the ingenuity and know-how of Montréal researchers!

All activities at the Science Centre (except the IMAX®TELUS Theatre) will be free on June 14, from 10 a.m. to 9 p.m., and on June 15, from 10 a.m. to 6 p.m.

- 1. The hockey stick of the future:** light, flexible, powerful!
- 2. A new kind of seismic damper** that reduces the effects – and damage – of earthquakes.
- 3. A surgical “super-suture”** that changes shape and stretches to follow the body’s movements, but returns to its original shape at rest.
- 4. A biomechanical attachment system** that lets doctors observe the bones in a patient’s knee in real time and detect any abnormalities.
- 5. An automatic indexing and search system** that identifies audio and video clips with just one click.
- 6. A smart surveillance camera** that can track motion and identify and follow subjects, without human intervention.
- 7. An enhanced vision system** that lets aircraft pilots see at night and through fog, using an infrared sensor.
- 8. A water purifier** that kills germs without using any chemicals.
- 9. A solar house** that draws all its energy from the sun, year-round.
- 10. An intelligent basketball shoe** that detects the compression level at each step, determines whether it is too soft or too hard, and adjusts the stiffness of the sole to give the runner the perfect amount of support.



EUREKA! FESTIVAL

SCIENCE HERE, THERE AND EVERYWHERE!

