



LOUISVILLE
SCIENCE CENTER

TEACHING KIDS ISN'T ROCKET SCIENCE...

IT'S ROCKET SCIENCE +

GEOLOGY + METEOROLOGY +

MOLECULAR PHYSICS +

ANATOMY + ELECTRONICS

+ ATOMS + NANOTECHNOLOGY

+ IMAX® MOVIES +

HYDRAULICS

+ OUTER SPACE +

MANUFACTURING + IONS +

CRIMINAL SCIENCE + QUANTUM
PHYSICS + BOTANY + SPACE SCIENCE
+ CHEMISTRY + OCEANOGRAPHY
+ SOLAR ENERGY + ROBOTICS +
TELEMETRY + MINEROLOGY +
MATHEMATICS + ARCHAEOLOGY
+ ZOOLOGY + AERODYNAMICS +
MEDICAL SCIENCE + ASTRONOMY
+ XENO BIOLOGY + PALEONTOLOGY
+ GASTRONOMY + CLIMATOLOGY
+ SLIME + GENETICS + BIOLOGY +
STOICHIOMETRY + ANTHROPOLOGY
+ ENVIRONMENTAL SCIENCE +
KINESIOLOGY + ENGINEERING
+ THERMODYNAMICS +
SPECTROSCOPY + VOLCANOLOGY
+ LASERS + TELESCOPES + TIME
TRAVEL + WILD ANIMALS +
NEUROSURGERY + CARDIOLOGY
+ MATERIAL SCIENCE + NATURAL
HISTORY + DNA + LABORATORIES +
OPTICS + PLASMA + ECOSYSTEMS
+ GRAVITY + THE SOLAR SYSTEM
+ ELECTROMAGNETS +
A WHOLE LOT MORE.

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[SUPER-SCIENCE IT]
Look for this symbol to SUPER-SCIENCE your
Field Experience with additional programming!

Ready to get started? Call 502-561-6100, ext.
6575 or 1-800-591-2203, ext. 6575 to speak to a
Louisville Science Center representative.



INTRODUCING Pulse of Surgery

Grades 7-12

> January 12 & 26, February 9 & 23, March 9 & 23,
April 20 & 27, May 4 & 18

The Louisville Science Center proudly announces an inaugural medical program that is sure to get your heart racing. Students at the Science Center will link to a live open-heart surgery performed by a medical team at Jewish Hospital. During real-time surgery, students and teachers will interact with the surgeon, nursing staff, perfusionists, and others in the operating room, while learning about the procedure, the tools used, and the techniques that must be mastered in order to perform a successful open-heart surgery.

In this captivating experience, students will meet local experts in health care, learn the importance of studying advanced anatomy and physiology and explore the state-of-the-art technology that makes medical advancements possible, while being introduced to possible careers in medicine. Program includes pre- and post-visit curriculum guides.

Cost: \$300 per class (30 student maximum)

Length: 2.5 hours

Program support from Jewish Hospital & St. Mary's HealthCare,
Greater Louisville Medical Society and Medical Society Professional Services.

Sesame Street Presents: The Body

> July 3, 2010 – January 2, 2011

Learn all about your body from fingers and toes to your ishy squishy insides within the familiar world of your favorite Sesame Street characters! Suitable for little ones and big kids alike, *Sesame Street Presents: The Body* offers the perfect opportunity to stress the importance of health, fitness, and nutrition while introducing the complex worlds of biological systems and anatomy.

Created and produced by **sesameworkshop**.

The nonprofit educational organization behind Sesame Street and so much more



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[**SUPER-SCIENCE IT**] Add *Should You Eat It?* for a class with an extra dose of good nutrition and healthy habits. See page 9.

STAR TREK THE EXHIBITION

Star Trek: The Exhibition Presented by at&t

> January 23 – May 22, 2011

Boldly go where no one has gone before. This utterly galactic exhibition will immerse students in the worlds of innovation, courage, creativity and imagination. The popular culture movement known as *Star Trek* jump-started many of today's technological and engineering feats and inspired countless scientists, astronauts and others to explore their own "final frontiers." Examine astronomy, cellular/radio communication, quantum physics, cultures, and the ingenuity that advanced science and technology from science fiction to real-world applications.



[**SUPER-SCIENCE IT**] Can you discern the scientific truths when it comes to laser beams and time machines? Find out in the class *Science Fact vs. Science Fiction*. See page 12.

Cost: Exhibits and Star Trek: \$8.00 per student and chaperone

Star Trek Only: \$5.00 per student, teacher and chaperone

Add-an-IMAX to either: \$2.00 per student, teacher and chaperone



Jewish Hospital

A service of Jewish Hospital & St. Mary's HealthCare

WHAT'S NEW EXHIBITS

WHAT'S NEW IMAX

Mind-blowing (and eye-stretching) films.

Hubble

> Now Showing through December 17, 2010

Journey through distant galaxies to explore the grandeur and mysteries of our celestial surroundings, and accompany spacewalking astronauts as they attempt the most difficult and important tasks in NASA's history. The film offers an inspiring and unique look into the Hubble Space Telescope's legacy and highlights its impact on how we view the universe.



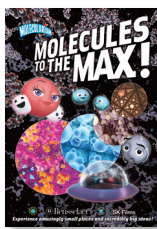
[SUPER-SCIENCE IT] See if your students have what it takes to be an astronaut when you add the lab *Living and Working in Space*. See page 14.

Molecules to the MAX!

> Now Showing through December 17, 2010

Fly through the crystalline structure of a snowflake, explore the metallic maze of a penny, escape the tangled polymers of chewing gum and more as you catch a ride to NanoSpace with Oxy and her crew.

Sponsored by University of Louisville, J.B. Speed School of Engineering, UofL Micro/Nano Technology Center, and KY EPSCoR nanoNET.

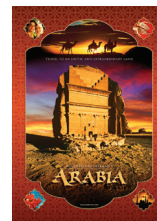


[SUPER-SCIENCE IT] Add the class *Molecules Revealed* or the *University of Louisville Nano Tour* to get even closer to the nano world. See pages 11 and 19.

Arabia

> Now Showing through May, 2011

Ride the dunes with a camel caravan, dive into the treasure-laden Red Sea, hurtle back into the Islamic Golden Age of Invention, and join the Hajj, where each year two to three million Muslims arrive in the holy city of Makkah to reaffirm their faith, creating the largest single human gathering on Earth. Arabia is a land few outsiders will ever visit, and this film offers a deeper understanding of a fascinating culture and way of life.



[SUPER-SCIENCE IT] Take the opportunity to book your visit during the Celebration of the Arabian Scientist for the chance to meet one of the film's stars. See page 22.

Animalopolis

> Now Showing

Designed for children ages 4 to 10, *Animalopolis* contains numerous short animal stories, using humorous poetic narration to delight students and teachers alike. Whether going nose-to-nose with hippos as they graze upon nature's massive salad bar, or eye-to-eye with dancing bears, discover how nature provides humor and wonder everywhere.



[SUPER-SCIENCE IT] Take your students on an interactive expedition through our exhibits by adding the class *Animal Antics*. See page 10.

Legends of Flight

> New in January, 2011

In the hundred-year-plus history of aviation, truly unique new aircraft designs come along only once in a generation. See how a century of aviation trial and error, and some of the seminal airplanes of the 20th century influenced the design of the game-changing new passenger airliners – the Airbus A380 and the Boeing 787 Dreamliner. Catch a glimpse of the manufacturing challenges and the incredible financial risks companies assume when they embark on radical new designs, and see how these magnificent marvels might affect the next 100 years of aeronautical design.



This is a whole new kind of field experience (for starters, there's no corn.)

Basic Field Experience

The Basic Field Experience includes general admission to the Louisville Science Center and access to all permanent exhibits: KidZone (reserved time required), The World We Create, The World Around Us and The World Within Us. See LouisvilleScience.org/exhibits for full descriptions of all permanent exhibits.

Please see pages 31-32 for booking policies for all programs and packages.

Cost: \$5.00 per student

\$5.00 per chaperone

Teachers are FREE

IMAX® Field Experience

Our four-story IMAX Theatre provides a unique opportunity to visit far-off lands, watch science come to life, or explore nature as never seen before in a giant-screen adventure.

See pages 3 and 4 for a list of upcoming films.

Cost: IMAX-only \$5.00 per student, teacher or chaperone

Add-an-IMAX \$2.00 per student or chaperone

Note: IMAX films may be booked separately or bundled with another Field Experience offering. One complimentary teacher IMAX ticket per 30 paid student tickets.

Special Exhibit Field Experience

The Louisville Science Center frequently hosts limited-engagement exhibits. Admission to these exhibits may be substituted for, or added to, a Basic Field Experience package.

Cost: Prices vary. See page 2 for more information on upcoming Special Exhibits.

Lunch Options

After feeding hungry minds, you'll undoubtedly have some hungry bellies. Reserve the lunchroom at the Louisville Science Center, and we'll store your sack lunches until it's time to eat!

Cost: \$0.50 per student and chaperone



Don't want to deal with sack lunches? Have SUBWAY delivered! Your pre-ordered lunches will be delivered to our lunchroom on the day of your visit.

A SUBWAY order form will accompany your pre-visit package.

[SUPER-SCIENCE IT] Enhance your Field Experience with an Interactive Class (page 9), Hands-On Lab (page 13), or Exclusive Package (page 17)!

Search for Programs by Grade & Subject

Louisville Science Center programs are correlated to national and state (Kentucky and Indiana) standards. For a complete listing of standards met for a given program visit LouisvilleScience.org/teachers.

Program	Pre-K	K	1	2	3	4	5	6	7	8	9	10	11	12
Creepy Crawly Science (page 9) ●														
Little Scientists (page 9) ●														
Should You Eat It? (page 9) ●●														
ScienTots (page 18) ●●														
Animal Antics (page 10) ●●●														
Overnight Adventures (page 26) ●●														
What's the Matter? (page 10) ●														
Zap! (page 10) ●														
Rate Your Heart (page 10) ●●														
Sands of Time (page 10) ●●●●														
Mummy Math (page 10) ●●														
Pollution Solution (page 11) ●														
Tunneling for Water! (page 11) ●														
Light Bright (page 11) ●														
Molecules Revealed (page 11) ●●●●●														
Molecules to the MAX! Program with KMAC (page 20) ●●														
Science Center and Frazier Museum Joint Visit (page 20) ●●														
Follow Me! Leadership Program (page 18) ●●●														
Virtual Programs (page 24) ●														
Protect Yourself (page 11) ●●														
Sizzling Science (page 12) ●●●														
The History of Science (page 12) ●●●●														
Name that Part! (page 13) ●●														
TechQuest (page 13) ●●														
Living and Working in Space (page 14) ●●●●●														
Design Your Own Lab! (page 14)														
Pulse of Surgery (page 1) ●●●														
Science Fact vs. Science Fiction (page 12) ●●●														
Larger Than an Atom, Smaller Than a Cell (page 12) ●●														
DNA Construction Zone (page 14) ●●														
It's Elemental, My Dear Chemist (page 14) ●														
Whose DNA was Left Behind? (page 14) ●●														
University of Louisville Nano Tour (page 19) ●●														

● Science
● Physical Education & Health
● Math
● Technology
● Social Sciences
● Language Arts
● Arts

Indicates program meets standards in these subjects.

INTERACTIVE CLASSES

So much to learn, you're going to need a bigger cranium.

Interactive classes challenge students to think more deeply about science with engaging, hands-on lessons and activities. Many complement our exhibits and films. Class content is adjusted for grade appropriateness.

Cost: \$2.50 per student (10 student minimum)

Length: 40 minutes

Note: Classes sold as add-on programs only.

Exhibit or IMAX purchase required.

Grades Pre-K – 1

Creepy Crawly Science

Eek! Your students will bug out in this class all about the cool side of creepy crawly creatures. They'll have hair-raising fun as they examine exotic insects and learn how they move and grow.

Little Scientists

Give your young Einsteins their first lab experience! Let your students play scientist with test tubes and beakers. Designed to introduce early learners to experiments, this class is sure to spark the curiosity of your students.

Should You Eat It?

What does it mean to eat the colors of the rainbow? Students will discover the role diet plays in the growth of healthy bodies and determine what makes up a well-balanced diet. Good nutrition and healthy habits are stressed.

Grades Pre-K – 4

Animal Antics

Go wild at the Science Center! Designed to build upon the IMAX film *Animalopolis*, catch a glimpse of nature's most hilarious creatures sporting their wildest behavior when you seek out animals and their habitats in a fun-filled interactive expedition through our exhibits. Activities are teacher/chaperone led.

[**SUPER-SCIENCE IT**] Book the film *Animalopolis* for a great start to your expedition! See page 4.

Grades 2 – 5

What's the Matter?

Your students will have a solid good time as they experiment with extreme cold and hot temperatures to alter the three states of matter. They'll turn solids into gas, learn how water evaporates, and much more in this mind-expanding class.

Zap!

Students will buzz with excitement as they explore the shocking world of electricity and magnetism and discover the truth about the nature of electrons and why magnets attract.

Rate Your Heart

Introduce your students to cardiovascular health, healthy lifestyles and the importance of exercise when they test their heart rates to determine what makes their tickers tick.

Sands of Time

Deserts are more than just rolling hills of sand! Explore the attributes of these unique ecosystems and learn the difference between the dunes of Arabia and the beaches of Florida. Discover different compositions and colors of sand as explained through geological processes.

[**SUPER-SCIENCE IT**] Add the IMAX film *Arabia* to catch a glimpse of exotic deserts with your own eyes! See page 4.

Mummy Math

Explore mathematics and science techniques from ancient Egypt. Add it up! Egyptians are the "square root" of many modern-day marvels. Solve equations of the past using the same math that will carry us into the future.

Grades 2 – 8

Pollution Solution

Examine water for environmental health hazards and experiment with different ways to clean up our water sources when pollution takes over. Help find a solution for all this pollution!

[**SUPER-SCIENCE IT**] Book a visit to the Frazier International History Museum to celebrate Louisville Water Company's 150th Anniversary! See page 20.

Tunneling for Water!

Rocks, sand and pre-historic water! It's a first of its kind project in the world. Louisville Water Company has built a tunnel to collect ground water for drinking water. Learn the science behind the project and experiment with the materials found deep in the ground.

Light Bright

We will leave the light on for you! Using retro style toys and stylish diffraction glasses, your class will deconstruct light into what isn't typically seen. Students will discuss light waves and the electromagnetic spectrum.

[**SUPER-SCIENCE IT**] This class is an excellent complement to the KaLightscope exhibit at the Galt House, open November 18, 2010 – January 3, 2011. Contact Mary Alice Greenamyre at 502-589-5200 or magreenamyre@galthotel.com, or check out KaLightscope.com for more information.

Molecules Revealed

Before braving into NanoSpace with *Molecules to the MAX!*, explore nano scale with a member of the Science Center's Education team. Through a series of hands-on demonstrations, your students will have a better grasp of the world that's smaller than a cell but larger than an atom.

[**SUPER-SCIENCE IT**] Be sure to visit NanoSpace with Oxy and her crew in the animated film *Molecules to the MAX!* See page 3.

Grades 6 – 8

Protect Yourself

Test and expand your knowledge of the reproductive system, STDs and HIV. Learn about methods of transmission, symptoms and treatments. Older students will discuss methods of "safer" sex and ways to keep themselves healthy. Abstinence is stressed. Content will be adjusted for age appropriateness.

Sizzling Science

You're doing science each time you lift a measuring cup in the kitchen! Proper measurements can lead to proper portion sizes, and proper portion sizes can lead to healthier meals and a healthier lifestyle. Join us as we discuss the science of cooking and how the food choices we make can have a profound impact on our bodies. Through chemistry demonstrations we'll boil down complex scientific principles into easy to digest pieces of information.

The History of Science

Travel back in time and explore scientific breakthroughs throughout the ages. With the help of the Scientific Method uncover some of the biggest discoveries in Western, Eastern, and Middle Eastern traditions.

[**SUPER-SCIENCE IT**] Add the IMAX film *Arabia* to discover more ancient mysteries. See page 4.

Grades 9 – 12

Science Fact vs. Science Fiction

How often have you seen starships explode in a hail of laser beam fire? What about time machines altering the future through actions in the past? Using clips from popular television and movies, we'll explore the feasibility of many components to science fiction and discuss how today's fantasies may become tomorrow's inventions.

[**SUPER-SCIENCE IT**] Boldly go where no class has gone before by adding a visit to *Star Trek: The Exhibition* or the IMAX film *Hubble*. See pages 2 and 3.

Larger Than an Atom, Smaller Than a Cell

Through a series of hands-on nano kits, your students can experience a variety of applications of nanotechnology. Watch as the surface tension in a cup of water prevents it from pouring or notice how scent particles can pass through the skin of an inflated balloon. From stain resistant pants to magnets, nanotechnology is everywhere, although it's too small to see!

[**SUPER-SCIENCE IT**] Take on small science of your own by adding the *University of Louisville Nano Tour*. See page 19.

HANDS-ON LABS

Experiences that are hands-on and brains-on.

A hands-on lab will bring out the inner-scientist in your students. Students will perform experiments in state-of-the-art chemistry or biology lab spaces. Labs are designed to give students extensive experience with scientific tools and topics.

Cost: *Varies, see lab description (10 student minimum)*

Length: *Varies, see lab description*

Note: *Labs sold as add-on programs only. Exhibit purchase required.*

Grades 6 – 8

Name that Part!

What better way to learn about the human body or organ system than by having the real thing in the palm of your hand? Your students can experience a hands-on organ extravaganza with the organ of your choosing. You will gasp for air when you compare a smoker's lung to that of a non-smoker. Go with the flow of blood through the heart. Put your thinking cap on when looking at the brain. Wonder what you will see next after dissecting an eye. One organ covered per 60-minute lab. Book multiple labs to cover the body from head-to-toe!

Cost: *\$5.00 per student*

Length: *60 minutes*

Grades 6 – 12

TechQuest

Take your students on a technology-driven scavenger hunt! Students use handheld wireless devices to explore our exhibits and discover answers to some of the most intriguing questions our universe has to offer. TechQuest offers the opportunity to correlate group responses and download classroom data for further investigation back at school.

Cost: *\$5.00 per student*

Length: *90 minutes*

Living and Working in Space

Do your students have the right stuff? From the Hubble-servicing spacewalks to the extended stays aboard the International Space Station, this lab explores the variety of mental and physical challenges facing humans in microgravity environments. Each program will conclude with a live video connection to Space Center Houston. Despite our ever-expanding universe, this lab has limited availability.

[SUPER-SCIENCE IT] View space as never seen before in the IMAX Theatre when you add *Hubble*. See page 3.

Cost: *\$5.00 per student*

Length: *90 minutes*

Design Your Own Lab!

NEW! Do you have a science topic you want us to teach but don't see it listed here? Is an old favorite missing from the list? You can custom design your own lab experience. Our two state-of-the-art lab spaces are fully outfitted with all the gear necessary to give your students the experience of working like a real scientist in a professional laboratory. Topics could include chemistry, dissections, biological systems and microbiology, plus many more.

Cost: *\$7.00 per student*

Length: *60-90 minutes*

Note: *Reservation required a minimum of six weeks before date of program.*

Grades 9 – 12

DNA Construction Zone

Learn the processes of transcription and translation by building models of the mRNA and polypeptide coded within a given strand of DNA.

Cost: *\$5.00 per student*

Length: *90 minutes*

It's Elemental, My Dear Chemist

Having trouble understanding why the periodic table is so important? Let us help you break down a chemist's most valuable reference tool as we examine key elements experienced on a day-to-day basis.

Cost: *\$5.00 per student*

Length: *90 minutes*

Whose DNA was Left Behind?

Your students will feel like CSI detectives as they use forensic techniques like DNA analysis, micropipetting and gel electrophoresis to solve the mystery from a hypothetical crime scene!

Cost: *\$5.00 per student*

Length: *90 minutes*



Do Science.

More
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IF Kids

Grades 6-8

> October 1

A subset of IdeaFestival, IF Kids exposes young thinkers to a wealth of unique and exciting ideas in science, the arts, and everything in between. The program includes discussions with leading innovators, hands-on activities, and performances by many of the same great minds taking part in the IdeaFestival.



Cost: \$5.00 per student

Length: 9:30am - 1:00pm

Note: Space is limited. Registration deadline is September 23.

Research!Louisville

Grades 6-12

> October 12-15

Excite your students about careers in science during Research!Louisville. Kentucky students and teachers grades 6-12 are invited to apply for a free Research!Louisville sponsored program to interact with a leading scientist engaged in groundbreaking medical research. Selected groups will also receive admission to the Louisville Science Center, an IMAX film, and lunch.



Applications are available online at LouisvilleScience.org/ teachers and recipients will be notified in September.

University of Louisville Nano Tour

Grades 9-12

> Available Year-round

Take an exclusive behind-the-scenes tour of the University of Louisville Micro/NanoTechnology Center. Immerse high school students in the world of high tech careers and engage in a Q&A with a team of researchers when you see micro/nano-fabrication tools in action. Learn firsthand about the nano world of sensors, integrated circuits, and implantable micro-devices. This program requires the class to spend a half-day at the University of Louisville. A companion visit to the Science Center can be arranged on the same day, if desired.



[SUPER-SCIENCE IT] Take a trip to NanoSpace when you see *Molecules to the MAX!* in the IMAX Theatre. See page 3.

Cost: \$10.00 per student, chaperone and teacher

Note: Standard field trip fees apply if adding a visit to the Science Center.

Molecules to the MAX! Program with the Kentucky Museum of Art and Craft

Grades 2-8

> Available Fall 2010 Only

Science is in the tiny details when you visit NanoSpace with Oxy and her crew in the big-screen adventure *Molecules to the MAX!* Then take your newfound science knowledge next door for a 90-minute hands-on workshop at the Kentucky Museum of Art and Craft. Working with the fun medium of polymer clay, elementary and middle school students will learn about tessellations, fractals and Fibonacci sequence while creating their own colorful, patterned wall-mounted artwork.



KENTUCKY MUSEUM
OF ART AND CRAFT

Cost: \$12.00 per student, \$5.00 per teacher or chaperone

Note: Minimum 15 students

Louisville Science Center and Frazier Museum Field Trip

Grades 2-8

> November 9 – March 25, Tuesday through Friday

At the Frazier Museum students participate in the “Water Works” program, which includes an interactive session in the temporary exhibit, *Water Works: 150 Years of Louisville Water Company* and one live performance. After lunch, students walk down historic Main Street to the Louisville Science Center. During the *Pollution Solution* workshop (see page 11) students examine water for environmental health hazards and experiment with different ways to clean up our water sources when pollution takes over. Help find a solution for all this pollution!



Frazier
International
History Museum

[SUPER-SCIENCE IT] Add a visit to Louisville Science Center exhibits for \$5.00 per student or chaperone.

Cost: \$9.00 per student, \$12.00 per additional chaperone

Length: 10:00am-1:30pm

Note: Maximum of 70 students / Minimum of 15

One chaperone required per 8 students.

Book this package by calling the Frazier Museum at 502-753-5663.

A chance to meet Science Superstars. Don't forget your autograph book.

Bring students face-to-face with leading experts and the foremost researchers in our community. Recent advancements in science, engineering, and math come to life when we put cutting-edge technology and the latest research in the hands of future scientists. Science Celebration activities are available at no extra charge with purchase of a Basic Field Experience package.

Child Health Day

> October 4

Help us recognize the importance of fitness, nutrition, hygiene and wellness for children by participating in activities designed to educate little ones about their health! Additionally, parents, caregivers and teachers will get the latest information on keeping children healthy and safe.

Celebration of the Arabian Scientist

> October 7-9

Modern science and mathematics began with scholars in Arabia. Learn about contributions from those early scholars and where their advancements are taking the world of science today! You'll also have the opportunity to meet Hamzah Jamjoom, the film student featured in the IMAX film *Arabia*.

National Chemistry Week

> October 21-23

Bring your young chemists to the Louisville Science Center to celebrate National Chemistry Week! Take part in interactive activities designed to encourage chemists of all ages to test out the chemistry in our everyday life. This celebration is in partnership with the American Chemical Society.

National Family Literacy Month

> November 8

The Louisville Science Center and the National Center for Family Literacy invite you to celebrate the importance of literacy for children, families, and our community.

National Engineers Week

> February 24-26

Calling all aspiring engineers! Hands-on demonstrations will encourage critical thinking and help students understand what it takes to have a career in engineering.

NanoDays

> April 1-3

It's science like you've never seen it before! Celebrate the miniscule world of nanotechnology to learn about its importance to the world around us. Scientists from area universities and labs will share the latest research in the nano world and the newest innovations in nanotechnology.

National Lab Day

> May 12-14

Join this nationwide initiative in building communities that recognize and support the importance of hands-on learning in science, technology, engineering and math. On National Lab Day young innovators will be encouraged to tinker in the Science Center's fully outfitted lab spaces and explore the possibilities of careers in science!

**The experience
is virtual.
The learning
is real.**

Grades 4-12

Unable to visit the Louisville Science Center in person? Bring us into your classroom through a live video-conference link! Programs include a kit with pre-lab and post-lab activities, as well as suggestions for expanding the learning experience.

Cost: In-state: \$125.00 per program / Out of State: \$200.00 per program

Length: 60 minutes

Chemistry Roots

From soap making to distillation, fried chicken to coal, explore Kentucky's rich heritage of industry through hands-on chemistry.

Living and Working In Space

What kind of physical and mental training do astronauts undergo before blastoff? What are the challenges of working and living in space and how do they overcome them? Learn about the International Space Station while training to be an astronaut.

Transmission Tracker

Someone in your class has a deadly disease! Watch it spread and follow its path. Use the tools of an epidemiologist to solve the mystery. Investigate how epidemics are spread and learn how to protect yourself.

The Force Is Right

Students learn about the physics of building bridges, skyscrapers, houses, and sculptures as they explore balance, tension, compression and flexion forces. Then, students use their new engineering skills to build hands-on models and test their structural integrity.

Wave Watch

Get ready to catch a wave! Discover the waves around you – light waves, sound waves, water waves, infrared waves and electromagnetic waves – while exploring the scientific properties of each.

Physics Rules

Why do curvy roads have lower speed limits than straight roads? Do rain and ice affect road friction? Discover how Newton's three laws of motion have shaped traffic laws.

SCIENCE AFTER DARK

When the lights go out, things get illuminating.

The science fun continues even after the sun is down! Book a Family Science Night for the whole school to give students and families the opportunity to learn together and enjoy a family night out.

Do you want to truly immerse your students in the world of science? Schedule an Overnight Adventure and they'll be experimenting until the sun comes up.

Family Science Nights

All Ages

Engage students, families and teachers in some science fun with our Family Science Nights! Families will enjoy after-hours admission to Louisville Science Center permanent exhibits, interactive programming with Science Center staff, and the IMAX film, *Animalopolis*.

Cost: \$8 per student, teacher or chaperone, must pay for 200 minimum.

Length: 5:30-8:00pm

Note: Family Science Nights may be scheduled any night of the week based on availability.

NEW for 2010-2011!

Light at the Museum Family Science Night

> Available Sunday-Thursday Only

Light up your night with an evening filled with illuminating science. It's the Louisville Science Center like you've never seen it before – in the dark! We'll turn out the lights so you can explore the mysterious properties of glowing color and light. Don't forget your flashlight!

[**SUPER-SCIENCE IT**] Visit the KaLightscope exhibit at the Galt House, open November 18, 2010 – January 3, 2011. Contact Mary Alice Greenamyre at 502-589-5200 or magreenamyre@galthotel.com, or check out KaLightscope.com for more information.

Overnight Adventures

Grades 1-5

Don't forget your toothbrush when you sleep over at the Science Center. Available for groups of 50 or more any night of the week based on availability.

Cost: \$30 per student, teacher or chaperone. Includes a science demonstration, program activities, after-hours exhibit exploration, an exclusive IMAX film, snack, breakfast, & admission to all Louisville Science Center permanent exhibits.

Length: 5:00pm – 9:00am, 2nd day permanent exhibit admission included

Additional non-exclusive open enrollment dates for See It, Solve It: January 28, February 11, March 11

Destination Exploration

> Fall 2010

Join us for a daring overnight adventure. Explore the unknown and trek through hands-on exhibits in a flashlight safari. Learn how real explorers outlived the perils of nature as they encountered some of the world's greatest discoveries. Be the last one standing by learning basic survival tricks and how to use the tools necessary to make it in the wild. To top it off, view a late-night showing of *Shackleton's Antarctic Adventure* in the IMAX Theatre.

See It, Solve It

> Spring 2011

It's a Science Center whodunit! Assume the role of a crime scene investigator in our mystery caper. Use real investigative techniques to learn the basics of forensics and biology and discover scientific principles like deduction and analysis to solve the crime!

[**SUPER-SCIENCE IT**] Add on *Star Trek: The Exhibition*. See page 2 for details.

Where teachers get extra credit (and free stuff.)

Club-ED

Join the Louisville Science Center's exclusive resource for educators. Gain easy access to online resources such as educator guides, pre- and post-visit activities, classroom materials, an e-newsletter, exclusive discounts, offers and events. Teachers will also receive a Club-ED membership card providing eligibility for curriculum-planning visits.

Sign-up for Club-ED online at LouisvilleScience.org/teachers.

Educator Preview Night

> **September 24, 2010 / 4-8pm**

You're invited to an exclusive preview to see all that the Louisville Science Center and Louisville Water Company have to offer, sponsored by Louisville Water Company.



- Check out *Sesame Street Presents: The Body*, an interactive exhibit all about you!
- Screen upcoming IMAX film offerings
- Sample interactive classes and labs from the Louisville Science Center and Louisville Water Company
- Celebrate Louisville Water Company's 150th anniversary
- Attend for a chance to win a free field trip for 30 students

RSVP to EdPreview@louisvilleky.gov or 502-561-6100, ext. 6143.

American Education Week

> **November 20-21**

The Louisville Science Center is teaming up with Museum Row on Main to celebrate and honor all educators with free admission for you and one guest. Participating locations include: Louisville Science Center, Frazier International History Museum, Muhammad Ali Center, Glassworks, Louisville Slugger Museum & Factory, Kentucky Museum of Art and Craft (Sat. only), KentuckyShow! and 21c Museum. Show your school ID or paycheck stub for admittance.

Book your visit today.

Call

502-561-6100, ext. 6575 or 1-800-591-2203, ext. 6575

Submit

Submit an online request form at LouisvilleScience.org/teachers.

Complete

Your reservation is complete once you have spoken to a Louisville Science Center representative.

Did you know you can order Gift Shop items and lunch from SUBWAY before your visit? Download our Pre-Visit Guide at LouisvilleScience.org/teachers to learn more!

Field Experience Cost Worksheet

	# Attending	Cost	Totals
Exhibits			
Students		\$5.00	
Teachers		FREE	
Chaperones (one chaperone per 10 students required)		\$5.00	
TOTAL			
Add <i>Star Trek: The Exhibition</i>			
Students		\$3.00	
Teachers		\$5.00	
Chaperones		\$3.00	
TOTAL			
<i>Star Trek: The Exhibition Only</i>			
Students		\$5.00	
Teachers		\$5.00	
Chaperones		\$5.00	
TOTAL			
IMAX Only			
Students		\$5.00	
Teachers		\$5.00	
Chaperones		\$5.00	
TOTAL			
Add-an-IMAX			
Students		\$2.00	
Teachers		\$5.00	
Chaperones		\$2.00	
TOTAL			
Add a Lunchroom Reservation			
Students		\$0.50	
Teachers		FREE	
Chaperones		\$0.50	
TOTAL			
Add KidZone			
Students, Teachers, & Chaperones		FREE	
Add a Class			
Students		\$2.50	
Additional Programs			
Labs			
Exclusive Packages			
Other			
TOTAL COST			
COMPLETE TOTAL			

Fine print you won't need a microscope to see.

BOOKING POLICIES

School Group Rates

Special school rates apply to groups of 10 or more students and are only available with advance registration.

Chaperones

The Louisville Science Center requires one chaperone per 10 students. Teachers and any adults over the age of 18 are considered chaperones and count toward this ratio.

Classes/Labs

A minimum of 10 students is required to schedule a class or lab. Classes and labs must be scheduled as an upgrade to an exhibit or IMAX package and booked 3 weeks in advance of the visit date. Due to the purchase of specialized supplies, cancellation fees may incur.

Confirmation

Once you have booked your Field Experience or program, a confirmation and pre-visit guide will be sent to you.

Final Changes/Cancellations

You may change or cancel your reservation up to 14 days prior to your scheduled visit. Rain checks will be issued for students and chaperones unable to attend on the day of your visit. Refunds will be issued for reservations cancelled due to inclement weather.

Field Experience Payment

Please note our new payment policies. Full payment must be received 14 days prior to your visit. Unpaid reservations will be cancelled. Science Center memberships are not valid for group visits.

Louisville Science Center accepts cash, check, MasterCard, VISA, Discover, American Express, or a completed Purchase Order.

Family Science Nights Policies & Payment

Minimum: Schools wishing to book a Family Science Night must pay for a minimum of 200 participants.

Cancellation: You may change or cancel your reservation up to 14 days prior to your visit.

Payment: Schools will be billed after the program for the total number of individuals who attend over the 200 minimum.

Overnights Policies & Payment

Minimum: Small groups will be accommodated in several pre-set open enrollment overnights (see page 26). Schools wishing to book an exclusive overnight must pay for a minimum of 50 participants.

Deposit: A \$100 non-refundable deposit is due 4 weeks prior to your visit.

Cancellation: You may change or cancel your reservation up to 14 days prior to your visit.

Payment: Full payment must be received 14 days prior to your overnight.

Refunds: No refunds after the 14-day window.

Distance Learning Policies & Payment

Booking: Distance Learning must be scheduled 4 weeks in advance to accommodate the shipping of a program kit to the participating site.

Cancellation: You may change or cancel your reservation up to 14 days prior to your link.

Payment: Full payment must be received 14 days prior to your link.

Refunds: A processing fee of \$50 will be deducted in the event of any cancellation. No refunds after the 14-day window.



727 WEST MAIN STREET / LOUISVILLE, KY 40202

Do Science.

Can you figure the odds of winning a free field trip for 30 to the Louisville Science Center?

Answer: Your chance of winning increases by 100% if you turn to page 28 and attend our Educator Preview Night on September 24.

