



LOUISVILLE SCIENCE CENTER | IMAX® THEATRE

2009-2010

Field Trip Planner

727 WEST MAIN STREET / LOUISVILLE, KY 40202 / LOUISVILLESCIENCE.ORG
502.561.6100 / 1.800.591.2203



Dear Educators,

Science is everywhere. We live it, we breathe it, but – most of all – we take it for granted. Science is, at its core, about creativity, problem-solving and possibility-oriented thinking. The Louisville Science Center strives to energize the community about the science all around us and encourage everyone to be scientific thinkers. Likewise, we are committed to supporting educators who are actively fostering scientific thinking in students throughout the region. Your students are our future — our future workforce, our future business, political and community leaders, our future parents and teachers. We must work hard, together, to collectively inspire this next generation.

While visiting the Louisville Science Center we invite you and your students to take a closer look at the scientific world around you - from the moment you step off of the bus on Main Street, when traveling to new worlds through our giant screen IMAX® Theatre, or investigating science in our classes and labs. The Science Center is an exciting place for students and adults alike, and provides the perfect opportunity to foster a sense of excitement for science, math, engineering and technology. This year we are offering some new partnership opportunities with other cultural attractions and universities to extend and enrich our offerings.

In addition to field trips, we can also help bring real science to your classrooms every day. The Virtual Science Challenge inspires technology-engaged students in a way that textbooks can't. And for an interesting change of pace, our distance learning programs bring Science Center educators into your classroom through a live video-conference link.

The leadership of excellent educators in every classroom is critical to the development of young minds. Our educator resources such as preview events, professional development workshops and the new Club-ED are designed to support the hard work you are doing every day to increase the science literacy of your students, their parents and caregivers. I hope that you allow the Louisville Science Center to help you with this important role.

I invite your thoughts and observations about the Science Center experience, and hope that you will express your dreams about future efforts, programs and initiatives directly with me at Joanna.Haas@louisvilleky.gov.

Science Matters,



Joanna E. Haas
Executive Director

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Field Trip Basics

Planning a field trip at the Louisville Science Center is simple and easy. It all starts with the BASIC FIELD TRIP, the IMAX® FIELD TRIP, or a SPECIAL EXHIBIT FIELD TRIP. Each of these can be enhanced with one or more FIELD TRIP UPGRADES.

On the following pages you'll find a summary of the Science Center's field trip offerings, other events, activities and resources for the 2009-2010 school year. Each item includes a brief description, as well as the page number or website where you can find more detailed information.

On page 30 of this booklet you'll find Field Trip Reservations information that will help to create a field trip tailored to your students' specific needs and interests.

Field Trip Offerings

2009-2010

BASIC FIELD TRIP

The Basic Field Trip includes general admission to the Louisville Science Center and access to all permanent exhibits: KidZone, The World We Create, The World Around Us, Discovery Gallery and The World Within Us.

See page 8 for a list of permanent exhibits.

*Cost: \$5.00 per student. (10-student minimum.)
\$5.00 per chaperone. (Minimum of one chaperone for every 10 students.)*

IMAX® FIELD TRIP

Our 4-story IMAX® Theatre can also serve as its own Field Trip destination, with an exciting annual lineup of films designed to immerse and inspire.

See page 10-11 for a list of upcoming films.

*Cost: IMAX®-only \$5.00 per student, teacher or chaperone.
Add-an-IMAX® \$2.00 per student, teacher or chaperone.*

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

SPECIAL EXHIBIT FIELD TRIP

The Louisville Science Center frequently hosts special exhibits. During those times, Special Exhibit Field Trips are available, which may be substituted for, or added to, a basic field trip package.

Prices vary. See page 9 for more information on upcoming Special Exhibits.

All times are Eastern Time.

Field Trip Upgrades

An array of additional upgrades can be added to the Basic, IMAX® or Special Field Trip to create a more comprehensive educational experience for you and your students.

IMAX® FILMS

An IMAX® film is the perfect complement to exhibit explorations, and a real treat for students and teachers alike.

See page 10-11 for upcoming films, or log onto www.LouisvilleScience.org/imax.

*Cost: IMAX®-only \$5.00 per student, teacher or chaperone.
Add-an-IMAX® \$2.00 per student, teacher or chaperone.*

Note: IMAX® films may be booked separately or bundled with another field trip offering. One complimentary teacher IMAX® ticket available per 30 paid tickets.

INTERACTIVE CLASSES

Take your field trip to the next level by reserving one of our classes, many of which will take place in our new Science Education Wing. Classes are 40-minute interactive experiences that invite students to delve a little deeper into science.

See page 14 for class offerings and descriptions.

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

Note: Basic or special exhibit package required; classes sold as add-on programs only.

HANDS-ON LABS

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 90-minute sessions designed to give students extensive experience with scientific tools and topics.

See page 16 for lab offerings and descriptions.

Cost: \$5.00 per student. (10-student minimum.)

Note: Basic or special exhibit package required; labs sold as add-on programs only.

SCIENCE CELEBRATIONS

The Louisville Science Center offers special events and activities throughout the year.

See page 18-19 for a list of upcoming special events.

EXCLUSIVE PACKAGES

Make the most of your field trip by taking advantage of one of the packages offered through the Louisville Science Center's exclusive programs and partnerships. Packages include combinations of specific Science Center activities, as well as joint offerings with other Louisville organizations.

See page 21-23 for a list of packages.



LUNCH OPTIONS

SCIENCE CENTER LUNCHROOM

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.

SUBWAY® DELIVERED

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.



Other **Scien- terrific** Offerings

VIRTUAL ONLINE PROGRAMS

When you can't bring students to the Science Center, bring the Science Center to you by taking part in the VIRTUAL SCIENCE CHALLENGE or DISTANCE LEARNING programs.

See pages 24-25 for details.

NIGHT EVENTS

Your students will love the Science Center's special nighttime events like FAMILY SCIENCE NIGHTS and CAMP-INS.

See page 27 for details including dates and times.

EDUCATOR RESOURCES

The Science Center's mission is to expand science literacy. One of the best ways to do that is to support those who teach science every day. EDUCATOR RESOURCES help to make teaching science more fun and engaging for both teachers and students.

See page 28 for details.

VolunTeens Needed.

Encourage your students to apply. The Louisville Science Center has exciting opportunities for students grades 8 and above. VolunTeens are an integral part of our customer service team and deliver science programs side-by-side with Science Center staff. In the process, VolunTeens develop important interpersonal and professional skills that will last them a lifetime.

Visit www.LouisvilleScience.org/volunteer for information.

Permanent Exhibits

KidZone

Come play with us! KidZone is a protected area for children 7 and younger to discover the possibilities as they play, pretend, build and create! *Splash!* into our new water exhibit where little ones explore the properties of water, race boats, and get in the flow of things by playing with pipes and spouts. KidZone sessions for groups of 10 or more require advanced reservations.

The World We Create

What will you create today? Investigate the science behind chemistry, physics, architecture, engineering, manufacturing, communication, and transportation. We'll be cooking up electrifying experiments in the Chemistry Kitchen, and utilizing the latest technology in the Tech Forum Theatre.

The World Around Us

Journey through the AtmoSphere, TerraSphere, and AquaSphere to explore natural and earth sciences! Report today's weather as you learn about the air that surrounds us. Travel across Kentucky to examine the different habitats in your own backyard. Realize the importance of water in our environment as you witness the way it moves throughout our planet.

Discovery Gallery

Visit your favorite Science Center residents in the Discovery Gallery. Examine an Egyptian mummy, marvel at the size of polar bears, and sit in a real Gemini trainer. You'll see natural history in a whole new light!

The World Within Us

What will you look like in 30 years? Take a look into the future as you explore the inner-workings of your very own body! Embrace healthy options as you study the effects different lifestyle choices may have on you. Encounter careers in research and medicine while becoming acquainted with local scientists making a difference in the world of science every day!



Special Exhibition

> October 3, 2009 through February 15, 2010

Step aboard the *RMS Titanic* in this extraordinary exhibit featuring artifacts daringly rescued from the ocean floor. Follow the fateful journey of the Ship from construction to the recovery of its precious remnants. Meet the passengers and crew of *Titanic* and learn the science behind the sophisticated methods used to rescue and preserve the artifacts on display.

Cost: Exhibits and Titanic: \$8.00 – students, chaperones, teachers

Titanic Only: \$5.00 – students, chaperones, teachers

Add-an-IMAX® to either: \$2.00 per person.



Titanic Educator Preview

September 30, 2009 / 4-8pm

You are invited to attend a special sneak preview of *Titanic: The Artifact Exhibition*. This Educator Only Preview is sponsored by Louisville Water Company.

- Enjoy a very special sneak peek of *Titanic: The Artifact Exhibition*
- Screen upcoming IMAX® film offerings
- Sample interactive classes and labs from the Science Center's 2009-2010 Field Trip Planner and tour the new Science Education Wing
- Celebrate Louisville Water Company's upcoming 150th anniversary
- Dip into Louisville Water Company's 2009-2010 education offerings, including a new earth science lesson
- Explore the *Adventures in Water!* video series from Louisville Water Company
- Meet education staff from other Louisville cultural attractions

RSVP to TitanicEdPreview@louisvilleky.gov or
Education Services Coordinator 502.561.6100, ext. 6143,
or 1.800.591.2203, ext. 6143.

IMAX[®] Theatre

Animalopolis (perfect for preschoolers!)

You and your students will laugh out loud as you watch bears boogie, hippos pig-out on a massive wild salad bar, and other silly antics by some of nature's craziest creatures. You'll also see furry-ous cheetahs, a fishing school taught by bears, an opera-singing lion, and a gang of crabs hold a town hostage! Especially designed for children ages 4 to 10, *ANIMALOPOLIS* contains numerous short animal stories, using humorous poetic narration to delight children and adults.

SUPER-SCIENCE IT — Pick the *Animal Antics* package, see page 23.

Ghosts of the Abyss

Academy Award[®] winning director and master storyteller James Cameron journeys back to the site of his greatest inspiration, the legendary wreck of the Titanic. Along with friend Bill Paxton and a team of the world's foremost historic and marine experts, Cameron embarks on an unscripted adventure back to the underwater grave where nearly 1,500 souls lost their lives almost a century ago.

SUPER-SCIENCE IT — Book this film to complement a visit to *Titanic: The Artifact Exhibition*, see page 9.

Shackleton's Antarctic Adventure

Discover the power of the human spirit as you trace the steps of Sir Ernest Shackleton's legendary adventure, the 1914-1916 British Imperial Trans-Antarctic Expedition. After his ship (ironically named *Endurance*) was crushed by ice, Shackleton and all of the 28 men aboard survived nearly two years in the barren, frigid Antarctic. Although never accomplishing his goal of being the first to cross the icy continent, Shackleton's expedition has become a larger-than-life testament to heroism, fortitude and leadership.

SUPER-SCIENCE IT — Consider a leadership program for 4th-6th graders, see *Follow Me!* page 22.



Van Gogh: Brush with Genius

Experience the extraordinary colors and passionate work of famed artist Vincent van Gogh brought to life on the giant IMAX[®] screen. Journey from the Netherlands to the South of France as you retrace Van Gogh's impressive, but surprisingly short, 10-year career, during which he created more than 700 paintings. Told from the perspectives of three main characters — Ellen, a museum researcher; Peter, a film director; and Vincent van Gogh himself — the film *Van Gogh* is a work of art in itself.

SUPER-SCIENCE IT — Add the *Science of Art* class or the *Colorful Chemistry* lab, pages 15 and 17.

got parts?



Interactive Classes

Interactive classes challenge students to think deeper about science with fun, hands-on lessons and activities.

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

Note: Classes sold as add-on programs only.

Exhibit package required. Duration: 40-minutes.

GRADES PRESCHOOL-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!

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!

Your 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.

> Weather Watch

If weather is in your curriculum, Weather Watch should be on your radar. Through an examination of the water cycle, temperature, and pressure, your students will discover why the wind blows, rain pours and lightning strikes in this electrifying class.

> What's on Your Plate?

For today's kids, perhaps no science subject is more relevant to their daily lives than nutrition. In this class your students will get a hearty helping of useful knowledge about how food affects the way they look, feel, and grow. They really are what they eat!

GRADES 2-8

> Can You Dig It?

Students dig into earth science and engineering in a class designed to excavate interest in underground resources! Louisville Water Company is tunneling for water using a major project built 150-feet in the ground. Learn the engineering behind the tunnel, examine earth materials and fossils, and explore how the earth is a natural filter!

GRADES 6-8

> Bounce!

Are your students full of energy? Let them explore the physics of basketballs, baseballs and more to see how energy and friction play a role in the design and function of balls used in different sports.

> Shake, Rattle, & Quake!

Take your students on an expedition to discover why earthquakes and volcanoes erupt. Students will explore the layers of the earth and how the landscape changes with these natural phenomena.

> The Science of Art: Available Fall 2009 only

Designed to build upon the IMAX® film *Van Gogh: Brush with Genius*, students in this class use a canvas and brush to explore the properties of light and color, as they observe how different paints, media, and solvents determine the outcome of both art projects and chemistry experiments.

Labs

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: \$5.00 per student. (10-student minimum.)

Note: Labs sold as add-on programs only.

Duration: 90 minutes. Exhibit package required.

GRADES 6-8

> TechQuest

Take your students on a technology-driven scavenger hunt with our new TechQuest! 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 opportunity to correlate group responses and download classroom data for further investigation back at school.

> Lights Out

Your students' brains will light up as they witness strange, exotic creatures that actually glow in the dark, and explore how the movement of electrons is responsible for this seemingly magical trait.

> NeuroLab

Show your students who's boss! Students will learn how the brain controls the body by examining a real sheep brain while discussing the different parts of the brain and their functions.

> HeartSmart

Your students will get a firsthand glimpse at the inner working of the circulatory system in this heart-pounding lab. By inspecting the dissected heart of a sheep, they'll learn why hearts beat, and what happens as blood travels throughout the body.

GRADES 9-12

> TechQuest

Take your students on a technology-driven scavenger hunt with our new TechQuest! Students will 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 opportunity to correlate group responses and download classroom data for further investigation back at school.

> Colorful Chemistry: Available Fall 2009 Only

Thanks to loud explosions, dramatic colors and temperature changes, your students will be fired up to learn as they investigate the relationship between color and light using spectroscopy. This lab makes a great addition to the IMAX® film *Van Gogh: Brush with Genius*.

> Whose DNA was Left Behind?

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

Design your own class or lab series to support the unique needs of your student learning plan.

Call our Education Services Coordinator to discuss logistics and pricing. 502.561.6100, ext. 6143, or 1.800.591.2203, ext. 6143.

Science Celebrations

Celebrate science with us during these times when specialized activities are available at no additional cost!

National Chemistry Week

> **October 22-24**

Celebrate National Chemistry Week at the Louisville Science Center! Take part in interactive activities designed to encourage young chemists to test out the chemistry in everyday life. This celebration is in partnership with the American Chemical Society.

Day of the Dead

> **October 31-November 6**

Honor the great minds of the past as we celebrate the traditional Latin American holiday El Día de los Muertos, or The Day of the Dead, in conjunction with the University of Louisville and the Kentucky Museum of Art and Craft. The Science Center will host altars to Charles Darwin and Galileo Galilei during this multi-cultural event.

National Engineers Week

> **February 18-20**

National Engineers Week at the Louisville Science Center will inspire your future engineers! Encourage your students to think critically as they participate in hands-on demonstrations and learn what it takes to have a career in engineering.

World Water Week

> **March 20-22**

Dive into the Science Center's world water celebration! Students will explore the scientific properties of water, its importance to the world we live in, and the water-related issues we are facing in our own community.

NanoDays

> **April 1-3**

Is the world getting smaller? Science certainly is as we celebrate the spectacular world of nanotechnology. Examine the properties of miniscule materials and their importance to the world around us. Hear about the latest research in the nano world and the newest innovations in nanotechnology.

Celebration of the Young Child

> **April 12-16**

Bring your little ones out to play during the Week of the Young Child! Activities will spark the curious nature of young children and encourage them to ask, seek, play and create. Teachers and families will be inspired to engage young inquisitive minds in everyday learning.

Messy Afternoons

> **Every Thursday and Saturday noon-4pm**

Science gets a little sloppy during Messy Afternoons. Get your hands dirty as you play with all things slippery, slimy, sticky, and squishy. Activities are intended to introduce children seven and under to science, and yes, you might get a little messy.



Exclusive Packages

IdeaFestival / IF Kids: Middle School

> **September 25**

Imagination and Creativity – IdeaFestival, through IFKids, exposes middle school-age thinkers to a wealth of unique and exciting ideas in science, the arts, and everything in between. Perspectives on creativity and intersections among these disciplines are presented to this young and inquisitive audience. Events include discussions, hands-on activities, and performances by many of the same thinkers taking part in the IdeaFestival, which runs September 23-26 in Louisville, KY.

Register through IdeaFestival.

Contact: IFkids@ideafestival.com.

Research!Louisville: Grades 6-12

> **October 13-16**

Energize your students about careers in science at the Louisville Science Center! Kentucky students and teachers grades 6-12 are invited to apply for a 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 currently available online and recipients will be notified in September.

Main Street Combo

Turn your Louisville Science Center visit into a trip down Main Street by adding a ticket to any of the following locations. No need to make multiple calls and reservations – simply call the Louisville Science Center and we'll take care of the rest!

Frazier International History Museum, Kentucky Museum of Art and Craft, KentuckyShow!, Louisville Slugger Museum & Factory

Follow Me! Leadership Program: Grades 4-6

> Offered Wednesdays and Thursdays, 9:30am-1:30pm

“NOTICE: Men wanted for hazardous journey. Small wages, bitter cold, long months of complete darkness, constant danger, and safe return doubtful. Honor and recognition in case of success.” Amazingly, that was Sir Ernest Shackleton’s actual job posting for his epic polar expedition. Even more amazing is that people actually applied. Well, here’s a better offer – let your students learn from the trials of these brave individuals. The Follow Me! Leadership Program uses the IMAX® film *Shackleton’s Antarctic Adventure* as a springboard to help students develop leadership, teamwork and communication skills. Lunch included.

Cost: \$20.00 per student, \$10.00 per adult/teacher.

Minimum 20 students.

(Cost is inclusive of all program elements.)

This program provided with support from Ernst & Young.

University of Louisville Nano Tour: High School

Experience an exclusive “behind the scenes” program at the University of Louisville Micro/NanoTechnology Center. Immerse high school students in the world of high tech careers and sign up now for a limited number of field trip programs being held at the J.B. Speed School of Engineering in collaboration with the Louisville Science Center.

Suit up to tour the \$30 million, 10,000 square foot Micro/Nano clean room. Engage in Q&A with a team of researchers and see micro/nano-fabrication tools in action. The Center specializes in innovation through miniaturization. Learn first-hand about the nano world of sensors, integrated circuits, and implantable micro-devices. This program requires the class to spend a half day at U of L’s campus. A companion visit to the Science Center can also be arranged on the same day, if desired.

Cost: \$10.00 per student, chaperone and teacher.

Maximum 30 students.

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

Animal Antics: Ages 10 and under

Go wild when you take on Animal Antics! View the IMAX® film *Animalopolis* to catch a glimpse of nature’s most hilarious creatures sporting their wildest behavior. Then, find some of the very same animals and their habitats in a fun-filled expedition through our exhibits. This package is perfect for youngsters!

*Cost: \$7.50 per person (Cost is inclusive of all program elements.)
\$9.50 per person, if adding Exhibits or KidZone.*

Van Gogh Program with the Kentucky Museum of Art and Craft: Grades 4-10

Science is everywhere, even in art! Experience the power and influence of a great artist first-hand as you view the IMAX® film *Van Gogh: Brush with Genius*. Next, travel next door for a 90-minute hands-on acrylic painting workshop at the Kentucky Museum of Art and Craft. Students will create landscapes and portraiture with an emphasis on motion, composition and brush techniques.

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

Note: Minimum 15 students.

Add The Science of Art class, page 15 or the Colorful Chemistry lab, page 17 at the Louisville Science Center to understand the science behind the techniques used by Van Gogh.

Louisville Water Company Class: Grades 2-8

Can you dig it? Students dig into earth science and engineering in a class designed to excavate interest in underground resources! Louisville Water Company is tunneling for water using a major project built 150-feet in the ground. Learn the engineering behind the tunnel, examine earth materials and fossils, and explore how the earth is a natural filter!

Cost: \$7.50 per person (Cost is inclusive of all program elements.)

Note: Class taught by Louisville Water Company education staff.

ScienTots – 9:30-12:30: Ages 7 and under

> 2009: October 12, November 9

> 2010: January 11, February 8, March 8, April 12

These dates are reserved exclusively for young learners. With no big kids in sight, this package is the perfect way to navigate the Science Center with little ones looking for adventure. Package includes activities in all exhibit areas geared toward the early childhood crowd plus time in KidZone, an IMAX® film fit for youngsters, and reservations in the lunchroom.

Cost: \$10.00 per student, teacher or chaperone.

One complimentary teacher IMAX® ticket available per 30 paid tickets. (Cost is inclusive of all program elements.)

Virtual Programs



Presented by  at&t

With additional support from  **Toyota** | *georgetown*
TOYOTA MOTOR MANUFACTURING, KENTUCKY, INC.

Are your students up for the Challenge? Send them immediately to www.virtualsciencechallenge.com! All Kentucky students in grades 5-10 are encouraged to check out the AT&T Virtual Science Challenge to see how much fun science can be!

Individuals or teams of up to four students are invited to create a virtual science entry utilizing their science, math and technology skills. The Challenge makes a great class project! Better yet, creative and energetic students can take on the Challenge as an extra credit or portfolio building experience. All projects will be reviewed by a distinguished panel of judges and have a chance to win \$1000! Every entry can also be voted on for the "People's Choice Award."

The Virtual Science Challenge, presented by AT&T with additional support from Toyota Motor Manufacturing, Kentucky, Inc., kicks off October 15, 2009. The deadline for entries is April 15, 2010.

The Awards Ceremony will be held on April 23, 2010.

This online activity sparks curiosity and supports creative problem solving in students. Issue the Challenge to your entire class! If 50 percent of your students successfully upload a project, you will be entered to win a free field trip for 30 students to the Louisville Science Center.

See page 28 for Virtual Science Challenge Workshops for Educators.

Distance Learning: Grades 4-12

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

See page 33 for booking policies.

COST: In-state: \$125.00/hour / Out-of-state: \$200.00/hour

> Chemistry Roots

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

> Star Station One™: 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 will learn about the physics of building bridges, skyscrapers, houses, and even sculptures as they explore balance, tension, compression and flexion forces with hands-on models.

> 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 science and 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 time have shaped traffic laws.



Science Center at Night

Family Science Nights

> **Open Enrollment 2010: February 25, March 11, March 25**

Engage students, families and teachers in some science fun with our Family Science Nights! Families will enjoy after-hours admission to Louisville Science Center exhibits, interactive programming with Science Center staff, and an IMAX® film. Visit www.LouisvilleScience.org/teachers for more information.

See page 33 for booking policies.

Cost: \$8.00 per person. Schools that guarantee a minimum of 200 attendees may schedule an exclusive Family Science Night, on another mutually-agreeable date.

Midnight Magic Camp-In: Grades 1-5

> **Open Enrollment 2010: January 29, February 12, March 26**

Can you outlast your students in a daring overnight adventure? Here's your chance to find out! 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®.

See page 33 for booking policies.

Cost: \$30.00 per person and includes a science demonstration, program activities, after-hours exhibit exploration, an exclusive IMAX® film, snack, breakfast, & Science Center admission! Groups of 100 or more can book their own Camp-In, on a mutually agreeable date.

Educator Resources

Virtual Science Challenge Workshop for Kentucky Educators teaching grades 5-10

Sign up for a professional development session to learn “best practices” from teachers who have successfully coached their students to enter this statewide online competition presented by AT&T Kentucky with additional support from Toyota Motor Manufacturing, Inc. Check out the website at www.virtualsciencechallenge.com to see the results of previous Challenges. This project is fully coordinated to Kentucky core content and helps foster teamwork, creativity and curiosity. Students in grades 5-7 and those in grades 8-10 are invited to create and submit multimedia entries highlighting their scientific ideas and innovations. Awards and prizes are given in all categories and entries are judged on scientific merit, creativity and ability to communicate. The workshop will address the integration of science investigation and technology (i.e. video, internet) in a student-centered application.

Dates: *Thursday, November 12*

5-8pm (add-on the 4pm IMAX® Feature, if desired.)

Saturday, February 6

9am-12noon (add-on the 1pm IMAX® Feature, if desired.)

Cost: *\$50.00 per teacher*

Design Your Own Professional Development Workshop

The Louisville Science Center team can energize teachers and staff, by encouraging them to do more science in their classrooms and to embrace students’ natural curiosity. We will help your team create a custom designed three-hour or six-hour Professional Development experience to encourage excellence in STEM instruction.

Please contact our Education Services Coordinator at 1.800.591.2203, ext.6143 or 502.561.6100, ext.6143. We prefer three months advanced planning time and require a minimum number of participants and a deposit to schedule your professional development program.

Engineering is Elementary (EiE) Introductory

Workshop in collaboration with the JB Speed Engineering School at University of Louisville and the Museum of Science, Boston

Join us for an introductory workshop and explore a proven set of 20 curriculum units designed to engage elementary students with the core principles of engineering! The EiE units include simple machines, insects & plants, solids & liquids, landforms & erosion and more! Visit www.mos.org/eie for a detailed list. Engage in a hands-on session to try out the EiE materials, instructional strategies and to check out the lesson plans and assessment rubrics. Hear about both in-school and after-school settings where the EiE program is succeeding.

Dates: *Thursday, January 14*

5-8pm (add-on the 4pm IMAX® Feature, if desired.)

Saturday, February 6

9am-12noon (add-on the 1pm IMAX® Feature, if desired.)

Cost: *\$50.00 per teacher*

Titanic Educator Preview, *see page 9.*



Club-ED

Join in on the fun! Club-ED is the Louisville Science Center’s exclusive resource for educators.

Sign-up for Club-ED online at www.LouisvilleScience.org/teachers to gain easy access to online resources such as IMAX® educator guides, pre and post-visit activities, classroom materials, an educator e-newsletter, and exclusive discounts, offers, and events. Teachers will also receive a Club-ED card that entitles you to free field-trip planning visits.

Field Trip Reservations

CALL

502.561.6100, ext.6111 / 1.800.591.2203, ext.6111

SUBMIT

ONLINE REQUEST at www.LouisvilleScience.org/teachers

COMPLETE

YOUR REGISTRATION by speaking to
a Louisville Science Center representative

Did you know you can order Gift Shop
items, IMAX® concessions, and lunch
from SUBWAY® before your visit?

Download our Pre-Visit Guide at
www.louisvillescience.org/teachers
to learn more!



FIELD TRIP COST WORKSHEET

Use this worksheet to estimate the cost of your trip.
The Louisville Science Center will send you a confirmed
total once your reservation is made.

	# ATTENDING	COST	TOTALS
EXHIBITS			
Students		\$5.00	
Teachers		FREE	
1 Chaperone per 10 Students		\$5.00	
Additional Chaperones		\$5.00	
TOTAL			
ADD TITANIC			
Students		\$3.00	
Chaperones		\$3.00	
TOTAL			
TITANIC ONLY			
Students		\$5.00	
Teachers		\$5.00	
Chaperones		\$5.00	
TOTAL			
IMAX®			
IMAX® only – students, teachers & chaperones		\$5.00	
ADD-an-IMAX® – students, teachers & chaperones		\$2.00	
TOTAL			
Add a Lunchroom Reservation			
Students		\$0.50	
Chaperones		\$0.50	
TOTAL			
Add a Class			
Students		\$2.50	
TOTAL			
Add a Lab			
Students		\$5.00	
TOTAL			
Exclusive Products/Packages			
TOTAL COST			
COMPLETE TOTAL			

Field Trip Booking Policies

> SCHOOL GROUP RATES

Special school rates apply to groups of 10 or more students.

> 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.

> ADVANCE REGISTRATION

Programs, Field Trips and IMAX® films must be booked in advance to receive special rates.

> 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 package and booked 2 weeks in advance of visit date. Due to the purchase of specialized supplies, cancellation fees may incur.

> CONFIRMATION

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

> FINAL CHANGES

Final changes to your reservation may be made up to one day prior to your scheduled visit.

> PAYMENT

You are responsible for the total amount due listed on your confirmation. One payment for the total amount due must be made upon arrival. Science Center memberships are not valid for group visits.
NO SEPARATE PAYMENTS WILL BE TAKEN.



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

Reserve a Special Program

Special policies and procedures apply to most special programs such as Family Science Nights, Camp-Ins, Distance Learning and exclusive or partnership programs. Please call 502.561.6100, ext. 6111, or 1.800.591.2203, ext. 6111 or visit www.LouisvilleScience.org for more information.

FAMILY SCIENCE NIGHT

Minimum/Maximum: Small groups will be accommodated in several pre-set open enrollment nights (see page 27). Schools wishing to book a private Family Science Night must have a minimum of 200 participants.

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

Changes/Cancellation: Up to 7 days prior to your visit you may change or cancel your reservation.

Payment: Schools will be billed following the program for the total number of individuals who attend.

CAMP-IN

Minimum/Maximum: Small groups will be accommodated in several pre-set open enrollment overnights (see page 27). Schools wishing to book a private Camp-In must have a minimum of 100 participants.

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

Changes/Cancellation: Up to 7 days prior to your visit you may change or cancel your reservation.

Payment: Full payment must be received 7 days prior to your overnight.

Refunds: No refunds after the 7-day window.

DISTANCE LEARNING

Advance Booking: Distance learning programs must be scheduled four weeks in advance to accommodate the shipping of a program kit to the participating site.

Deposit: A 50% deposit is due at the time of booking, and required before materials will be shipped.

Changes/Cancellation: Up to 7 days prior to your link you may change or cancel your reservation.

Payment: Full payment must be received 7 days prior to your link date.

Refunds: A processing fee of \$50.00 will be deducted in the event of any cancellation. No refunds after the 7-day window.

Push to Start



LOUISVILLE SCIENCE CENTER | IMAX THEATRE

727 WEST MAIN STREET / LOUISVILLE, KY 40202 / LOUISVILLESCIENCE.ORG
502.561.6100 / 1.800.591.2203