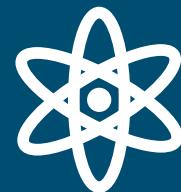


SAINT LOUIS SCIENCE CENTER

Education Program Guide



SAINT LOUIS
SCIENCE CENTER

WELCOME TO THE SAINT LOUIS SCIENCE CENTER EDUCATION PROGRAM GUIDE

Here you will find live science demonstrations, hands-on workshops and field trip packages for your class, scouts, after-school functions, families, parties, fairs, festivals, church groups, camps and more! We even offer programs for adults!

Programs are available to be booked at the Science Center or many programs can be brought to your location. **Please add a \$50 fee to the stated price for off-site programming. For multiple programs on the same day, only one off-site fee will be charged. An additional travel fee may apply for long distance locations.**

Our wide variety of educational programs are tailored to specific groups and audiences. All necessary materials, safety equipment and handouts are provided. Programs have recommended ages and class sizes. For larger audience sizes, please contact us to discuss alternative program possibilities.

For more information or to schedule a program, please call **314.289.4439** or email education@slsc.org.



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**ONLY AT THE
SAINT LOUIS SCIENCE CENTER,
VISIT THE NEW GROW EXHIBIT!**



Seasonal Activities Daily

Field Trip Packages Available

Take A Guided Tour

**For current offerings and schedules,
visit our page at slsc.org/GROW**

CAMPS

SUMMER SCIENCE BLAST

Blast into summer with our week-long day camps! The summer line up includes a variety of stimulating science sessions for everyone from preschoolers to teenagers, sure to keep kids excited about learning all summer long! Full day, morning, and afternoon sessions available for 4-year-olds up to students entering 10th grade.

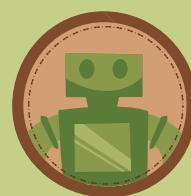
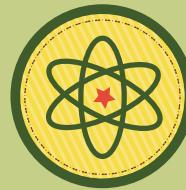


EXPERIENCE THE SCIENCE CENTER AT NIGHT

Have you ever had so much fun at the Science Center that you didn't want to leave? Join us for an overnight camp-in and explore the Science Center all night long. Whether it's sleeping under the stars or learning about Dinosaurs, our overnight programs are an unforgettable experience. We also offer camp-ins for scouts and private groups.



**FOR MORE INFORMATION OR TO REGISTER,
CALL 314.289.4439 OR 800.456.SLSC X4439
SLSC.ORG**



SAINT LOUIS SCIENCE CENTER'S SCOUT PROGRAMS

Programs for all levels of Scouts available!

We offer:

- Regularly Scheduled Scout Workshops.
- Overnight Camp-ins
- Scout Weekends
- NOVA Days

**Check out our available programs and
schedule at slsc.org/scouting-programs.**



SAINt LOUIS
**SCIENCE
CENTER**

FIELD TRIP PACKAGES

Eliminate all the guess work in booking a field trip to the Science Center! Packages are matched to standards and include an agenda for your visit as well as pre and post-visit activities. Each package has multiple components (demos, educational programs, related galleries/exhibits, planetarium show or a movie).

To see currently available packages, chaperone requirements, lunch options, parking details and more information regarding these unique offerings, please visit slsc.org/field-trips.

AMAZING SCIENCE DEMONSTRATIONS

Let us put on a live science demonstration for your group! These programs can get anyone excited about science and are perfect for field trips, school assemblies, corporate functions and more! All live shows can be facilitated on-site or at your location unless otherwise noted.

Programs are \$100 (off-site programming fee applies). All shows are 30 minutes long and recommended for up to 100 people, ages 5 and up.

Multiple demos may be booked with a minimum of 15 minutes between shows. Demonstrators require access to running water, a nearby grounded outlet, a table at least 6 feet long and at least 15 feet of space between presenter and audience.

A Hair Raising Experience – This shocking demonstration will electrify learning! We'll explore the parts of an atom, learn why doorknobs shock us in the winter and create an arc of electricity that can energize a light bulb without wires.

NOTE: Some experiments in this demonstration are not safe for those who have pacemakers or hearing aids.

Boiling Hot, Boiling Cold – Examine the dramatic differences and striking similarities between two boiling liquids: water and liquid nitrogen. See how we make a cloud or what happens when a bounce ball is frozen solid!

NOTE: Due to the inclusion of liquid nitrogen and safety concerns, this program is only available on-site at the Science Center.

Creepy Chemistry – This series of spooky experiments will definitely get ooohs and ahhs. We'll explore a variety of chemistry experiments including fun with fire, expanding lunch bags and rapid decomposition before ending it all with a bang!

NOTE: This demo includes a small explosion, which can be loud.

H2Whoa! – Water plays an important role in our lives, but chemically speaking, water is a rebel! From seeming to defy gravity to sparking excitement, we'll investigate the uncommon properties of the world's most common chemical.

NOTE: This demo includes open flames and a loud noise. Some experiments are not safe for those who have pacemakers or hearing aids.

Hidden Potential – Where is energy? In you, in me, in our food, EVERYWHERE! When people think of energy they typically only imagine batteries and cars full of gasoline. Discover the many surprising places that you can find and harness energy!

NOTE: This demo includes open flames and a loud noise.

It's a Blast! – The show you've always asked for: a chemistry show that explores a specific type of reaction – fire! Through surprising experiments discover the basic needs of fire and witness some loud, bright and colorful demonstrations that are sure to ignite some excitement.

NOTE: This demo includes open flames and must be done indoors with ceilings 12 feet or higher.



Stormy Weather at the Science Center

Motion Magic – Newton's Laws of Motion are so common-sense that we know their results instinctively – most of the time. Sometimes the same laws can produce surprising results! You don't need to be a magician to pull a tablecloth out from under dishes and silverware! In this interactive demonstration, we'll learn the science behind how things move and find out how magical physics can be!

Now Hear This! – Most people know what sound is, but how does it work? We'll get things shaking to explore sound energy and find out some unusual ways we can make noise. We'll learn about frequency, waves and pitch through fun demonstrations. You'll hear singing goblets, screaming metal rods and experience a way to see sound!

The Scoop on Poop – Once your food hits your plate, the fun isn't over yet! Experience the amazing journey that your lunch takes as it travels through your body changing into forms that we can use for walking, breathing and living! You'll also see what happens to what's left over when our bodies are done with it!

Stormy Weather – See the science of weather in action as we create a thunderstorm on stage! Learn all about clouds, lightning and tornadoes first hand while we recreate powerful weather phenomena that you can see, hear and maybe even touch!

Sublime Science – Stay cool with all the states of matter in this new sub-zero program! We'll delve into a world of solid dry-ice and sublimating gases, color changing crystal balls, and bubbles that can be held without popping. Discover the cryogenic fun that can be had with carbon dioxide in this brand new demonstration!



GROW

The GROW gallery is the newest and largest addition to the Saint Louis Science Center. This permanent gallery explores the journey our food takes from farm to fork. Visit our chickens and see our combine harvester as you learn about the science and technologies needed to grow the food we all eat!

These 90 minute programs are only available onsite and can serve a maximum of 30 students. Each program costs \$225.

Aquaponics: Food without Soil

6th–10th grade

Learn how to grow fish and plants simultaneously in this interactive exploration of the science behind aquaponics. Through inquiry-based experiments and hands-on exploration, students will learn the chemistry, biology, and engineering involved in creating a system that supports both fish and plants. Students will also get a behind the scenes tour of the Aquaponics Greenhouse in the GROW Gallery.

Undercover! Soil Secrets

2nd–5th grade

There is a mystery underfoot but you will have to "dig in" in order to solve it. In this program, students will engage in a hands-on learning experience as they go undercover and become Soil Secret Agents. By following clues and uncovering evidence, students will discover how all of life is connected to soil and they will even learn how to make soil through composting. Dig in and uncover the secrets of soil!

Agriculture and the Environment

5th–9th grade

As the human population increases, and available land for farming decreases, the importance of growing food and caring for our environment becomes an especially relevant problem. Students will examine the environmental impacts of agriculture, discover how farmers and scientists work together to produce food and care for the environment, and learn how to make a positive difference in their own home and school.

MAKERSPACE

The Makerspace is a unique gallery that offers guests amazing hands-on experiences where you can expect to tinker, make, invent and collaborate. Join our experienced staff as we lead you through one of our amazing programs listed below. **For off-site programming, the additional off-site fee applies.**

Scribble Bots

For up to 30 students, 2nd-12th grade.

Come to the Makerspace Classroom and create your own Scribble Bot using a low voltage motor, wires, batteries and more! It may be a very simple contraption, but you'll be amazed by the wild lines created by an artist of your own making. Students will work independently and exercise creative problem solving and investigate learning throughout the program.

\$325 for a 60 minute program.

Makey Makey Music

For up to 30 students, 1st-8th grade.

Students will work together to create musical instruments using graphite, paper and a circuit board! The teams will work through the design and development process which brings together the basics of circuitry, collaboration and creative problem solving.

\$225 for a 60 minute program.

Rube Goldberg

For up to 20 students, 5th-12th grade.

Our newest addition to our classroom experiences! Turning on a switch is easy, but can you flip a switch using an entire room filled with dominoes, ramps, buckets and levers? In this program, students will work with staff and each other to create a functioning Rube Goldberg machine that will fill the entire classroom.

\$225 for a 60 minute program



ASTRONOMY AND SPACE SCIENCE

Blast off with us as we explore outer space! Explore the planets of the Solar System or the galaxies of the universe. Let the Science Center help you visit the stars!

Our Solar System

For up to 35 students, 3rd-12th grade.

Learn about the many objects that make up our solar system! Activities focus on an investigation of planetary surfaces and building a space probe out of recycled materials to conduct research on other planets.

\$200 for a 60 minute program. For off-site programming, the additional off-site fee applies.

Unisphere

30 or 60 person options available, 3rd-12th grade.

These star-studded programs dazzle participants by bringing the stars and constellations indoors with our portable planetarium. Stargaze while the night sky heroes and legends from different cultures around the world are immortalized. Featuring lore from African, Native American and Greek cultures.

This program requires an air-conditioned room away from traffic and noise and one grounded outlet. Room must be 30' x 30' x 12' for the 30-person dome and 36' x 36' x 20' for the 60 person dome. Each session is 45 minutes long.

For the 30 person dome, \$200 for the first session, \$100 for each additional session. For the 60 person dome, \$250 for the first session, \$150 each additional.

We also offer a rotating selection of Astronomy-themed field trip packages every semester! For the most current offerings, please visit slsc.org/field-trips.

PLANETARIUM

Visit the James S. McDonnell Planetarium at the Saint Louis Science Center for an out-of-this-world experience! All shows will be conducted in the Orthwein StarBay and include a self-guided tour of the Boeing Space Station that helps students learn about living and working in space! For complete schedule and availability, please visit: slsc.org/planetarium-shows. To reserve tickets, please call **314.289.4424**.

Live Sky Tonight

Come see our Carl Zeiss Mark IX projector as it brilliantly simulates the night sky on our 80-foot dome. In this show, see the constellations, planets and stars currently visible in our night sky. We will also see rare astronomical events such as meteor showers and comets and discuss our current space exploration programs, such as the Mars rovers. This show is for all ages and may be tailored to a particular group's needs.

The Little Star That Could

The story of an "average" star who travels the universe in search of planets. Along the way he makes many discoveries about stars, planets, galaxies and himself. This show is recommended for early childhood groups in K-2nd grade.

NOTE: This program is also available for visitors who are blind or visually impaired.

Live Sky: The Constellations

We use constellations to organize the night sky, helping us locate objects of interest. For ancient astronomers the constellations were not only the products of scientific pursuits but also served as a means to understand their world and their own existence. Cultures around the world developed rich traditions steeped in astronomy that included their own interpretation of the constellations. Come explore the constellations with us in this live presentation!

Live Sky: Mission Mars

In this Mars-centric show, we will learn how the planet has been observed throughout history including the discoveries we are making today with our rovers and landers. Find out how to locate the Red Planet in the night sky and observe what the sky would look like from the Martian surface!

PALEONTOLOGY AND EARTH SCIENCES

Explore the history of the Earth and the creatures that roamed its surface, both past and present! From dinosaurs and fossils to rocks, minerals and earthquakes, we have the program for you! **For off-site programming, the additional off-site fee applies.**

Paleo to Go

1st-6th grade.

Let the Saint Louis Science Center create a fossil preparation lab experience in your own classroom! Learn about different types of fossils and how they are excavated and prepared. Students will learn and assemble real fossils. The perfect complement to your classroom curriculum, supporting problem solving skills, fine motor skills and recording data. **This one hour program is only available off-site at a cost of \$250.**

Paleontologist for a Day

5 years of age and up.

Do you have a child that wants to be a paleontologist or maybe you dream of digging up dinosaur bones yourself? Participants will learn techniques to prepare dinosaur fossils in our Fossil Prep Lab, make a cast of a real T-Rex tooth and learn all about dinosaurs.

\$75 per person. Limit 2 per day from 10am to 2pm.

Available on Thursdays and Saturdays by reservation only.

We also offer a rotating selection of paleontology and earth science-themed field trip packages every semester! For the most current offerings, please visit slsc.org/field-trips.

BIOLOGY AND LIFE SCIENCE

Find out what makes us and other organisms tick as you explore the mysteries of life! Discover what features and systems make us similar to the animal kingdom and find out what makes us unique. **For off-site programming, the additional off-site fee applies.**

Biology of the Giver

For up to 30 students, 6th-8th grade.

Our hands-on activities will connect literature to biology themes in The Giver, by Lois Lowry. Participants will learn about the real life science behind the genetic traits found in the characters and their society. Learn what makes Fiona unique, why everyone but Jonas was color blind, and how the Elders may have controlled population genetics.

\$200 for a 60 minute program.

DNA Gene Shorts

For up to 30 students, 4th-12th grade.

Introduce your group to the world of DNA and genetics with our fun and unique experiments!

\$200 for a 60 minute program.

For grades 4-7

Learn basic genetics and how traits are inherited from parents. See your own DNA and learn how to compare samples of DNA like a geneticist. Activities include: cheek cell DNA extraction, inheritance bracelets, Adaptoids and gel electrophoresis.

For grades 8-12

Refresh your knowledge of genetics while learning how geneticists study and manipulate DNA. Activities include: cheek cell DNA extraction, gel electrophoresis, paper plasmids and your choice of ONE of the following: Adaptoids: See how traits pass from parents to offspring with these fun creatures. Predicting with pedigrees: Construct a pedigree and learn about inherited traits.

Body Connections

For up to 30 students, 1st-4th grade.

Explore the vital systems that make your body work. Students will examine the functions of multiple organ systems through hands on experimentation and engaging activities.

\$200 for a 60 minute program.



DNA Gene Shorts

PHYSICAL SCIENCE

Explore fascinating physical science topics using our hands-on, experiential learning activities! Learn about the states of matter, physics and architecture. **For off-site programming, the additional off-site fee applies.**

Icky Sticky Science

For up to 30 students, K-8th grade.

These fun, hands-on activities will build interest in material science, increase understanding of concepts, and develop processing skills for your learners. Activities may include oobleck, slime, silly putty, pop rockets and more. Get ready to get sticky and even take home your own polymer! **\$200 for a 60 minute program.**

Coaster Creations

For up to 30 students, K-12th grade.

What goes up...must come down! Spinning wheels and many other simple machines are triggered by balls moving as you've never seen before. Introduction and self-guided exploration activities include observing machine behaviors, running on the popular "hamster wheel" and building your very own mini roller coaster!

This 90 minute program is only available on-site at the Science Center at a cost of \$250.

Science of Sound

For up to 30 students, K-5th grade.

Students will attend a 30-minute Amazing Science Demonstration called "Now Hear This," followed by an hour-long instrument building workshop where they will create a custom instrument from recyclable materials. These instruments can then go home with the students so that they can make music everyday.

\$250 for a 90-minute program.

Physics Phun

For up to 30 students, 2nd-8th grade.

Explore the world of force and motion using challenge-based activities! Groups may rotate through multiple stations or focus on a specific content area by means of a guided experience. Investigations may also cover matter and energy, magnetism or simple machines.

\$200 for a 60 minute program.

Structures

For up to 30 students, 2nd-8th grade.

In this program students will be presented with design and building challenges. Can you design a bridge out of paper or build a tower out of marshmallows? Students will use problem solving skills and teamwork in order to complete their challenges and then improve their designs.

This 90 minute program is only available on-site at the Science Center at a cost of \$250.



Structures

EARLY CHILDHOOD AND EARLY ELEMENTARY EDUCATION

Let the Science Center help ignite an interest of science in your young learners! Visit our Discovery Room or have a private program at our location or yours. **Unless otherwise noted, all programs are \$150 for one hour session that can serve a maximum of 30 children. For off-site programming, the additional off-site fee applies.**

A Sense of Me

For up to 30 students, K-2nd grade.

How does information get to your brain? Discover how each of the senses plays a special role in bringing messages to your personal command center. Hands-on activities and demonstrations promote the understanding of the way our five senses work.

Note: please notify coordinator of any food allergies or dietary restrictions.

Build It! Test It! Fix It!

For up to 30 children, pre-K-1st grade.

Using the story of the Three Little Pigs, build a house using reclaimed materials. Then put your house to the test in front of our Big Bad Wolf Fan to see if he can blow your house down!

Icky Sticky Science

For up to 30 students, K-2nd grade.

These fun, hands-on activities will build interest in material science, increase conceptual understanding, and develop processing skills for your learners. Activities may include oobleck, slime, silly putty, pop rockets, and more. Get ready to get sticky and even take home your own polymer!

\$200 for a 60 minute program.

Simply Science

For up to 30 children, pre-K-2.

Get hands-on with simple experiments that use the scientific method. Use science tools to play with color and chemistry, feel the force of magnets and get creative with electricity! Activities will give students introductory experiences with science in a fun setting that will foster future science learning.

Discovery Room

Water, Nature, Space, and more! Explore the Discovery Room with your young scientists. Each area of the room allows you to immerse yourself in science learning through play. The Discovery Room is open to everyone, but is specially designed for young learners ages 1-8. For more information, visit our website at slsc.org/discovery-room.

Preschool Science Series

For children aged 3-5.

Explore the magic of science! Chomp, stomp and roar with the dinosaurs or blast off to space! Programs are offered on Mondays and Tuesdays. We will explore a new topic each week. For more information, visit our website at slsc.org/preschool-science-series.

Storytime Science

For up to 30 children, pre-K – K.

Science concepts are revealed using the magic of stories. Our activity will start with story time where we will read a children's book followed by hands on activities related to the story's subject.

ADDITIONAL PROGRAM OFFERINGS

Family Science Night

Grades K-12.

Families can enjoy five or ten hands-on inquiry based tabletop activities. School must provide at least one teacher volunteer per activity to facilitate.

Call for available topics.

5 Tabletop Inquiry Stations (Teacher Facilitated)

1.5 hours: \$350 2 hours: \$450

10 Tabletop Inquiry Stations (Teacher Facilitated)

1.5 hours: \$700 2 hours: \$900

Birthday Parties

Celebrate your child's special day with a birthday party at the Saint Louis Science Center! We offer packages for kids of all ages. Parties include room rental, Science Center programming, food and beverages, a Science Center ambassador and much more.

Visit slsc.org or call **314.286.4664** to book your party today.



Preschool Science Series

Professional Development

Professional development opportunities are available for teachers of all levels. Please email education@slsc.org for details.

Additional Resources

youthexploringscience.com

Learn about the Youth Exploring Science (YES) program at the Saint Louis Science Center.

[Stemisphere link](#)

Coming Soon