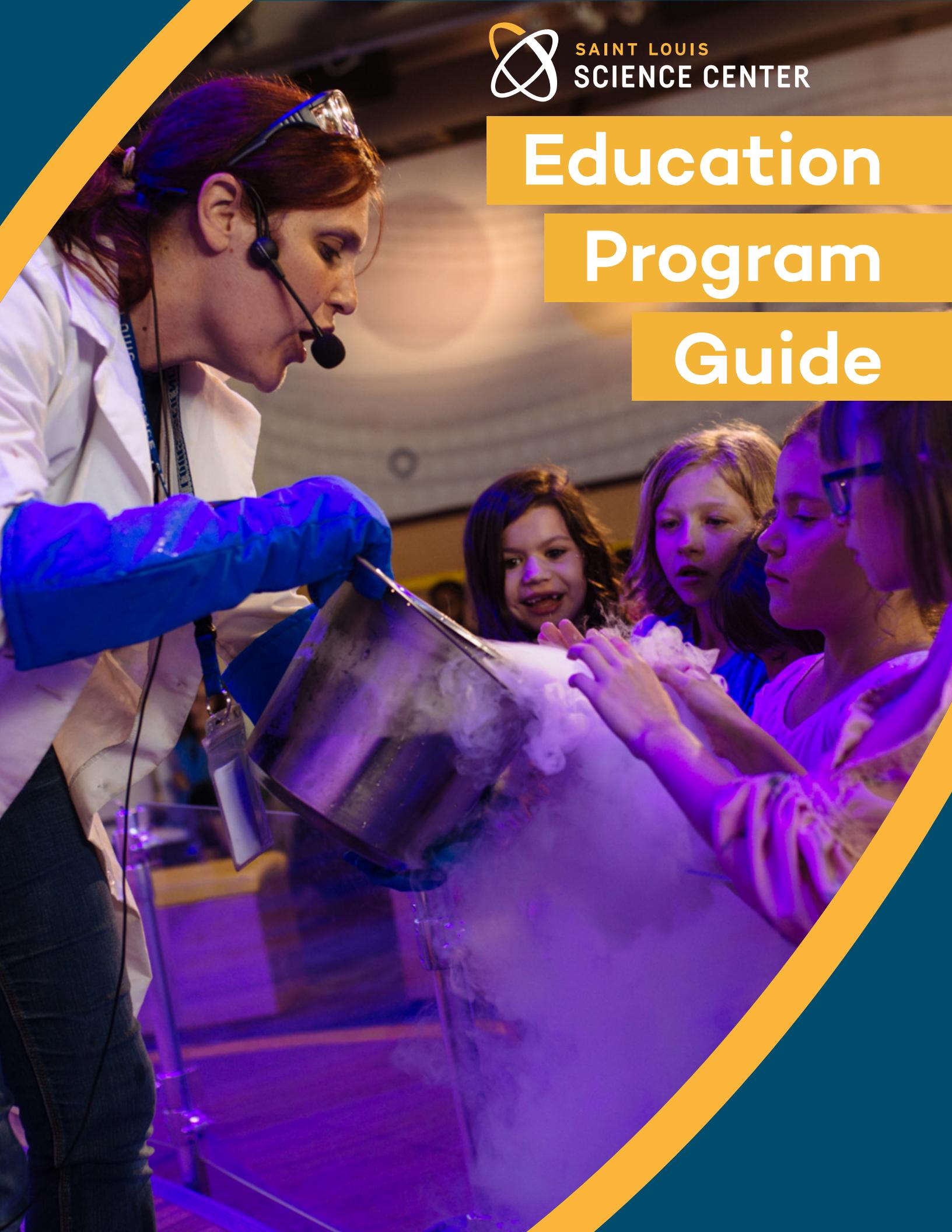




Education Program Guide



SAINT LOUIS SCIENCE CENTER PROGRAM GUIDE

Bring science to life – for your class, troop, festival, family, camp and more – with our hands-on workshops, star shows, demonstrations and field trip packages. Science Center programs combine experimentation, creativity and play to help people discover a passion for science and technology. Our programs are the perfect way to introduce new topics and have fun exploring science.

With more than 700 interactive experiences, our GROW pavilion and gallery, our famous McDonnell Planetarium and our five-story OMNIMAX® Theater, we invite everyone to create a more connected world through the power of their curiosity. Our educational programs offer additional and tailored opportunities for your audience to investigate science topics.

Programs are available to be booked at the Science Center and many programs can be brought to your location. Off-site programming carries an additional \$50 fee to cover travel; multiple programs at the same site on the same day will only be charged once. Additional fees may apply for long distance locations or unique requests.

Our wide variety of educational programs are carefully designed for specific audiences – there's something for everyone. All necessary materials, safety equipment and handouts are provided. Programs have recommended ages and class sizes. For larger audience sizes, or unique audience or space needs, please contact us to discuss alternative program possibilities. Many of our programs can be adapted for groups with visual, auditory, motor and sensory impairments, please discuss on reservation.

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



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It's a Blast Amazing Science Demonstration

TEACHER PROGRAMS

The Saint Louis Science Center strives to be a force of positive change in regional education. Helping connect educators to resources and opportunities is the mission of the Teacher Programs department.

Professional Development

Are you looking to promote curiosity in your classroom? Check out the Saint Louis Science Center's Curious Classroom Series. These professional development workshops have been designed to empower teachers and prepare students for the jobs of the future.

STEM Excellence Pathway

Not sure where to start with STEM? For schools and educational teams that are beginning to evaluate their needs, we offer the STEM Excellence Pathway.

The Carnegie STEM Excellence Pathway is built on the belief that school systems, individual schools, departments and individual teachers can improve their STEM education practices through positive, collaborative approach. It is designed to help the widest possible range of school districts and schools adopt best practices in STEM education.

For more information contact education@slsc.org.

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 [live science demonstrations, educational programs, time to explore and a planetarium show or an OMNIMAX® film].

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 performance 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. **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.

Creepy Chemistry

Inspire "oohs" and "ahhs" with these astonishing experiments. Explore a variety of chemistry principles including fun with fire, expanding lunch bags and rapid decomposition before ending it all with a bang!

NOTE: This demo includes loud noises.

H2Whoa!

Did you know 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.



Amazing Science Demonstration

Hidden Potential

Where is energy? In you, in me, in our food, EVERYWHERE! Go beyond common sources like 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 loud noises.

It's a Blast!

Ignite excitement for science and FIRE! Through surprising experiments discover the basic needs of fire and witness some loud, bright and colorful demonstrations.

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

Now Hear This!

Have you ever seen a sound? Make some waves using frequency and pitch through fun demonstrations. You'll hear singing goblets, screaming metal rods and experience a way to see sound!

Rockets!

Get ready to blast off! Explore how rockets move using Newton's 3rd law of motion, learn about the chemistry needed for rocket combustion and launch into the best way to get to outer space.

NOTE: This science demonstration does feature brief moments of fire as well as loud noises.

The Scoop on Poop

Experience the amazing journey that your lunch takes as it travels through your body changing into energy 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

It's got thunder, lightning, but it's not frightening. 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 sub-zero program! 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!

GROW

Explore the science behind one of the most important parts of life: our food. Where does it come from? How does it grow? How far does it travel to get to us? And how can each of us ensure that everyone has delicious, nutritious food to eat? You'll find the answers to these questions and so much more in GROW – the largest U.S. gallery of its kind focused solely on agriculture.

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



GROW

Aquaponics: Food without Soil

6th–10th grade

Explore how to grow fish and plants simultaneously by going behind the scenes. Students will learn the chemistry, biology and engineering involved in creating a system that supports both fish and plants. Build your own hydroponic garden in a bottle!

Farm the Future

5th–9th grade

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 your home and school.

Undercover! Soil Secrets

2nd–5th grade

Dig in and uncover the secrets of soil! There is a mystery underfoot that you will have to unearth in order to solve. Students will use behind the scenes components of the GROW exhibit to become Soil Secret Agents, discovering how all life is connected to soil.

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.

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.

\$325 for a 60-minute program.

MaKey MaKey

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

Students will work together to create musical instruments using graphite, paper and a circuit board! Students 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.

Turning on a switch is easy, but can you flip a switch using an entire room filled with dominoes, ramps and levers? Problem solve to build a Rube Goldberg machine that fills the entire classroom.

\$225 for a 60-minute program

Coaster Creations

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

What goes up, must come down! Assemble simple machines and apply the laws of physics to build a cool contraption. Collaborate with other students to assemble your very own mini roller coaster!

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

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 30 students, 2nd-12th grade.

Many awe-inspiring objects 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

NEW! More Than A Planetarium

Let us bring the stars to you! For groups unable to travel to the James S. McDonnell Planetarium, the Science Center now offers immersive, high-tech traveling Planetarium shows.

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

Please choose one of the following programs:

One Small Step – A simulated rocket launch chronicling the history and science of the Apollo 11 mission.

One Giant Leap – Take one giant leap to explore our solar system; the Earth, Moon, Sun and the planets.

Twinkle, Twinkle – Travel beyond the confines of our solar system to see the stars, constellations and asterisms that twinkle in our night sky.

Shake and Quake – Explore why earthquakes happen by studying fault lines and other geologic factors, from the perspective of Earth's orbit.

This program requires an air-conditioned room away from traffic and noise and one grounded outlet. Room must be 18' x 18' x 12'.

\$300 for the first session, \$100 for each additional session



Unisphere Interior



Unisphere Exterior

PLANETARIUM

Visit the James S. McDonnell Planetarium and experience a beautiful, realistic, simulated night sky on our 80-foot dome. Our Star Shows feature a ZEISS UNIVERSARIUM Model IX projector, the first and only in the Americas to use brilliant, sustainable LEDs. Shows are hourly on the half hour and include a 30-minute Planetarium show in the Orthwein StarBay and a self-guided tour of the Boeing Space Station after the show.

See the constellations, planets and stars, learn about how ancient astronomers used constellations to organize the sky or discover how seasonal changes impact what we see in the night sky.

For complete schedule and availability, please visit:
slsc.org/planetarium-shows. To reserve tickets, please call
314.289.4424.

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!

Fascinating Fossils

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.**

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.

Examining the Evidence

For up to 30 students, 4th-8th grade.

Calling all science sleuths! Apply scientific skills to implement experiments, form observations and track data to find a scientific solution.



DNA Gene Shorts

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.

Examine the building blocks of genetics, pedigrees and DNA! Extract your own DNA and observe the unique structures that determine 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.

ENERGY STAGE AND GALLERY

Explore fascinating physical science topics using our hands-on, experiential learning activities! Learn about the states of matter and physics.

For off-site programming, the additional off-site fee applies.

Icky Sticky Science

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

This popular, hands-on program will build interest in material science, increase problem-solving 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.

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 in a guided experience. Investigations may also cover matter and energy, magnetism or simple machines.

\$200 for a 60-minute program.

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 your 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.

Build a house that can't be blown down! 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!

Simply Science

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

Observe! Measure! Experiment! Use science tools to play with color and chemistry, feel the force of magnets and get creative with electricity! Activities give students introductory experiences with science in a fun setting, fostering future science learning.



Discovery Room

Storytime Science

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

Once Upon a Science Story! Reveal scientific concepts with the magic of stories. After reading a story, complete hands-on activities and design challenges related to the story's subject.

DISCOVERY ROOM

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

ADDITIONAL PROGRAM OFFERINGS

Family Science Night

Kindergarten-12th grade

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