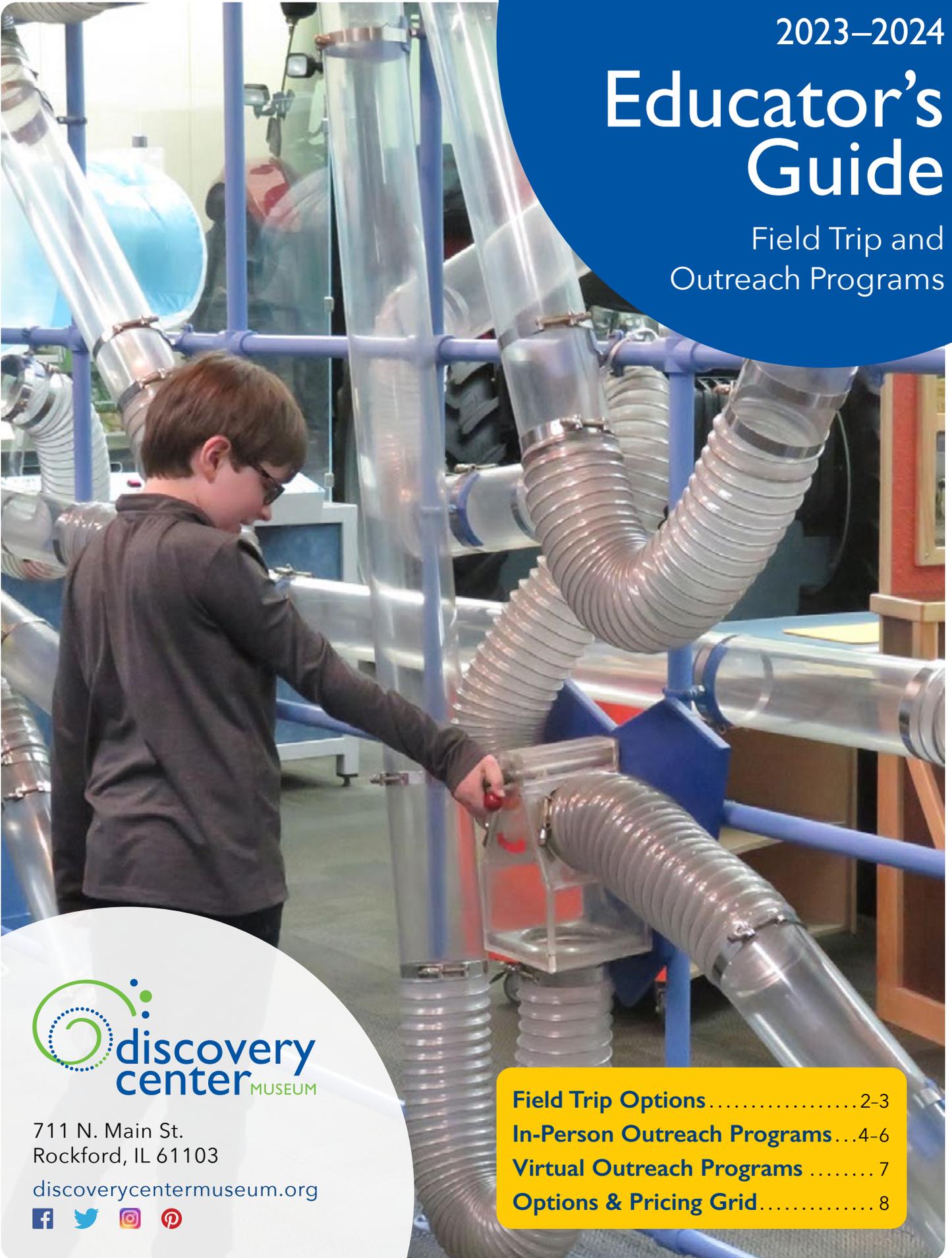


2023–2024

Educator's Guide

Field Trip and Outreach Programs



711 N. Main St.
Rockford, IL 61103

discoverycentermuseum.org



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Whether you take your students to Discovery Center or bring Discovery Center to your classroom, our educators have countless ways to enhance your curriculum, inspire your students, and bring STEM to life! Our field trips, in-person outreach and virtual programs contain educational activities and resources for learners of all ages and are created to inspire and excite people about science.

Don't see quite what you are looking for? Contact us and our team of educators will work to meet your needs.

Fantastic Field Trips

Our interactive exhibits provide valuable hands-on experiences that match your curriculum and align with Next Generation Science Standard Disciplinary Core Ideas. Visit Discovery Center Museum and teach a lesson your students won't forget!

NGSS: ESS2.B, ESS2.D, ESS3.B, ETS1.A, ETS1.B, LS4.C, LS4.D, LS3.A, PS2.A, PS2.B, PS3.A, PS3.B, PS3.C, PS3.D, PS4.A, PS4.B, PS4.C
IELDS: 9.A.ECa, 11.A.ECe, 12.B.ECb, 12.D.ECb, 19.A.ECa, 19.A.ECb, 30.C.ECa

Length: 2 hours (longer for add-on programs or lunchtime) Due to scheduling considerations, we are unable to extend your field trip if you arrive late.

Basic Field Trip Cost: \$6.50 per students or chaperone (all school staff members are free)

RESERVATIONS: To begin the registration process, complete the online form at www.discoverycentermuseum.org/group-visit-request-form. For additional questions, you can also email fieldtrip@discoverycentermuseum.org. Our calendar fills well in advance. For the best choice of dates, please book **AT LEAST** 3 months before your planned visit.



Permanent Exhibits

Figure It Out

Flip, fold, and figure out patterns and relationships while exploring shapes and symmetry; sequences, shadows, and transformations. Use measurement and logic skills and connect to art, music, science, and society!

Simple Machines

Use a giant Archimedes' Screw to set in motion a whirlwind of activity on our transparent interactive wall. Lift yourself off the ground with a pulley and experience how to make work easier using simple machines.

Color & Light



Capture your shadow on a wall, project a moving rainbow image of your body, write with light, play with shadows, and tease your brain! Explore our newly revamped bubble exhibit with a bigger and better body bubble, new bubble tables, and mysteriously mist-filled bubbles!

Get the Message

Try your brush at virtual cave art, signal a crane operator, and learn sign language.

Ag-Zibit

Explore science and technology on the farm from simple machines to GPS and discover how agriculture affects all our lives everyday! Climb aboard the tractor, gather eggs, milk the cows, move grain, make corn husk dolls, play a farm matching game, and more.



Air & Flight



Soar with science as you float a ball on an invisible cushion of air, see the mechanics of airplanes in action, feel a vortex, and experiment with wind.

Rockford Astronaut Janice Voss

Get a first-hand view of space flight, examine astronaut accessories, design your own mission patch, and find out what inspired Janice to reach for the stars.

Wild Weather

Touch a tornado, create the coriolis effect, model the swirl of planetary weather, and build sand dunes.

Discovery Park

Navigate through the outdoor park to play with forces, motion, simple machines, optical illusions, and more! Availability is seasonal / weather dependent.



Body Shop

Get your muscles moving, measure your heart rate, test your strength and agility, play games with your brain, design a nutritious meal, examine genetic traits, see the inner workings of the human body, and more!



Sponsored by Mercyhealth

Power of Electricity

Turn body power into electrical power, feel the force and find the link between motion, magnets, and electricity! Harness the power of wind, assemble a circuit, dial up some solar energy, and witness stunning electrical phenomena!



Sponsored by comed
AN EXELON COMPANY

Team Up! Explore Science & Sports

Play virtual-reality soccer, clock the speed of your pitch, launch a tennis ball, try on sports equipment, measure bounces, and test for rotational inertia.

Tot Spot Gallery

Recommended for grades PreK-K

This exclusive area allows children 6 years and younger to take the lead with exploration, imagination, and creativity. Visit Ginny's House and work on the family car. Take a trip to the children's hospital and be the doctor or nurse as you give an exam, review x-rays, and tend to babies in the hospital nursery. Explore backyard nature and climb into a treehouse, catch a fish, and eat a camp meal. Children can also experiment in the Water Play area and watch wind and gravity in motion.



Careers Kiosks

Learn about jobs from the people who do them! Computer kiosks feature videos, photos, and information for a variety of career fields. Graphic panels throughout the exhibit galleries feature people in occupations that relate to those exhibits.



TV Studio

Experiment with green screen technology like a real meteorologist! Report the news and instantly see yourself on screen.

Sponsored by

Sun, Earth, Universe

Follow the engineering design process to build a model spacecraft, pilot rovers across the Mars landscape play table, reveal hidden images using the same tools NASA scientists employ to explore the invisible forces and energy of the universe and more!

Programs to Enhance Your Field Trip

STEM Labs

Add on to your visit and focus your students on a science theme. Each engaging workshop features activities, investigations, and demonstrations that match your curriculum goals and reinforce science concepts.

Length: 30-45 minutes
Cost: \$65/class up to 25 students



Microscope Adventures *New!*

Grades: 4-8

Use real microscopes to investigate the world of the very small. Examine cell structures and locate living organisms in unexpected places.

NGSS: LS1.A, PS1.A, PS4.B

Slime & Chemistry

Grades: K-5

\$20 lab fee

Measure, pour, and mix real chemicals to produce reactions, investigate solids, liquids, and gasses, and concoct slime!

NGSS: PS1.A, PS1.B, PS3.B, PS3.D



Roller Coaster Science

Grades: 1-8

Students make use of engineering skills as they design and test their own roller coasters in this exploration of kinetic and potential energy.

NGSS: ETS1.A, ETS1.B, ETS1.C, PS2.A, PS2.B, PS3.A, PS3.B, PS3.C
Illinois SEL standards: 2C.1b, 2C.2b, 2C.3b

Robot Rendezvous

Grades: Pre-K-8

Design bots and compile code as your students put their problem-solving skills to the test with our robots.

NGSS: 3-5 ETS1-1, ETS1-2, ETS1-3
Illinois SEL Standards: 2C.1b, 2C.2b, and 2C.3b

Early Childhood STEAM Labs

Add on to your visit and focus your students on a science theme. Each engaging workshop features activities, investigations and demonstrations that match your curriculum goals and reinforce science concepts.

Length: 30 minutes
Cost: \$45/class up to 20 students

Shapes & Colors *New!*

Grades: PreK-K

See the world in a whole new light while investigating some simple shapes. Students will sort shapes and classify colors while exploring a rainbow adventure of fun activities designed especially for young scientists.

IELDS: 7.A.ECa, 8.A.ECa, 9.A.ECa, 9.A.ECb, 9.A.ECd, 11.A.EDa, 11.A.EDc, 11.A.EDf



Discovery Planetarium

Experience the night sky in Discovery Center's planetarium! Choose a show tailored to your group's interest and ability level to explore planets, stars, space exploration, and constellations. **These shows are designed for our in-house planetarium.**

The planetarium is a gift from the Kiwanis Club of Rockford.



NGSS: ESS1.A, ESS1.B, PS1.B, 1-PS4.B
IELDS: 12.B.ECb, 13.B.ECa

Length: 30 min
Cost: \$30 per show up to 25 students
Grades: Pre-K and up



Big Bird's Adventure

Grades: Pre-K-1

Big Bird and Elmo explore the night sky and discover that we see the same phases of the moon as our friends across the world!

Discover the Night Sky

Grades: 2-8

This live presentation walks students through the sky tonight and points out moon phases, planet locations, and constellation identification. Seasonal constellations are illustrated using stories from Greek mythology. Learn about the solar eclipses happening in October and April.

Earth, Moon, and Sun

Grades: 3-8

The Native American mythical Coyote's incorrect notions about basic astronomy prompt explanations. Animation and real images come together to teach about daily motion of the sun, phases of the moon, seasonal changes in star locations, and eclipses.

Temporary Exhibit

January - May 2024

Grades: Pre-K-2
Cost: Additional \$1

In Discovery Town, a kid-size city, children play as they learn about the people and places that make up a community. Each stop on the trip through town provides opportunities for children to try out adult roles through role play. While in Discovery Town, children can visit a vet clinic, pizza shop, fire station, local theater, post office, airport, classroom, and outdoor park. The pint-size community promotes problem solving, creative exploration, and getting along with others, as well as practice with essential fine and gross motor skills.





Outreach Programs

Our Outreach Programs bring the excitement of science learning to you! Whether you are educating one small class or the entire school, we offer a wide variety of programs which meet the needs of your students, enhance your curriculum, and line up with *Next Generation Science Standards Disciplinary Core Ideas*.

REGISTRATION: To begin the registration process, complete the online form at www.discoverycentermuseum.org/outreach-request-form. For additional questions, you can also email outreach@discoverycentermuseum.org or call our Outreach Request Line at 815-972-2844. Our calendar fills well in advance. For the best choice of dates, please book **AT LEAST** 3 months before your planned event.

In-Person Outreach

Hands-On Classes

Engage your brain and immerse your hands in science with our Hands-On Classes! Whether introducing a topic, reviewing for a test, or investigating for fun, every student will be excited about learning science and begging for more!

Grades: vary by topic

Length: 60 minutes

Participants: 30 maximum

Cost: \$150 (\$70 for each additional class*). Travel fees may apply.

Magnetic Attractions

Grades: K-3

Test to see what sticks, measure magnetic strength, and construct a magnetic contraption.

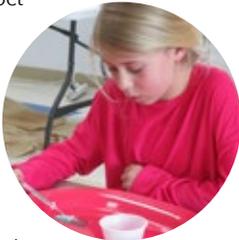
NGSS: PS2.A, PS2.B

Slime & Chemistry

Grades: K-8

Measure, pour, and mix real chemicals to produce reactions, investigate solids, liquids, and gases, and concoct slime!

NGSS: PS1.A, PS1.B, PS3.B, PS3.D



Color & Light

Grades: K-5

Explore the properties of light, fool your vision, dissect a rainbow, and create your own kaleidoscope.

NGSS: PS4.A, PS4.B

Engineering Challenge ***

Grades: 3-8

Design and construct your own contraption to fly, spin, or stay put, then test it in our vertical wind column.

NGSS: ETS1.A, ETS1.B, ETS1.C, PS2.A

Fling & Wing

Grades: 2-6

Learn aerodynamic secrets as you assemble and launch some crazy shapes. You won't believe these gadgets fly!

NGSS: PS2.A, ETS1.C



Early Childhood Hands-On Classes

These hands-on experiences feature activities that allow our littlest learners to explore at their own pace with amazing materials which stimulate senses and excite minds!

Grades: Pre-K

Length: 30-45 minutes

Participants: 20 maximum

Cost: \$125 (\$50 for each additional class*)
Travel fees may apply.

We Can Build It

Create a building, bridge, or road using a variety of materials with this new version of one of our most popular classes!

IELDS: 9.A.ECd, 9.A.ECe



Playful Sounds

Explore sounds of all sorts by playing with high and low and loud and soft in this noisy and fun-loving class!

IELDS: 7.A.ECa, 8.A.ECa

Balancing Act

Explore balance while developing fine and gross motor skills in this topsy-turvy class.

IELDS: 2.A.ECa, 13.B.ECa, 19.A.ECa, 19.B.ECb



Thank you for such an entertaining and informing night of science for our Lincoln Elementary students. Your passion for your work really shines through.

Emma Dieter, Lincoln Elementary

In-Person Outreach continued

Science Carts

Roll science right into your classroom to maximize student participation and discussion!

Grades: 1-8

Length: 45 minutes

Participants: 30 maximum

Cost: \$150 (\$60 for each additional class*). Travel fees may apply.



Weather Cart

Witness the water cycle and see how this process leads to sun and storms! Instant clouds and touchable lightning unlock the complex phenomena of weather!

NGSS: ESS2.C, ESS2.D, ESS3.B, PS1.A, PS1.B

Sounds of Science

Get splashed by a sound, listen to the direction of a gong, and use pipes to discover the connection between size and pitch.

NGSS: PS4.A

Don't see quite what you are looking for? Contact us and our team of educators will work to meet your needs.

* Additional program discount applies for programs of the same topic held on the same day at the same location.

** This program has a special space requirement.

*** Expanded age range available for younger participants.

Portable Planetarium **

We'll bring you the moon and stars with our inflatable portable planetarium! Presentations are tailored to your grade level. Dates near the total solar eclipse in April of 2024 will be limited due to high demand, so reach out soon if you are interested in booking an eclipse show during the spring of 2024.

Grades: K-8

Length: 30-45 minutes

Participants: 30 maximum

Cost: \$200 (\$70 for each additional show*) Travel fees may apply.

Show Themes: Sky Tonight (with optional eclipse focus), Ancient Stories in the Stars, Our Solar System

Space requirement: 25x25' floor space and 11' ceiling clearance



Assembly Programs

These dynamite demos feature experiments, investigations, and explanations woven together in a stimulating presentation.

Grades: K-8

Length: 30-45 minutes

Participants: 150 maximum

Cost: \$300 (\$250 additional show*). Travel fees may apply.

The Liquid Nitrogen Show **

\$50 lab fee

Excitement goes up as the temperature drops in this ultra-cold show! Witness instant phase changes and identify the differences in states of matter as they succumb to the frigid world of liquid gas!

NGSS: PS1.A, PS1.B, PS3.A, PS3.B

The Captivating Chemistry Show

Solids, liquids, and gasses combine to create chemical changes that look like magic. Chemistry becomes apparent using surprising reactions that create colors, fabricate foam, and explode!

NGSS: PS1.A, PS1.B, PS3.A, PS3.B, PS3.C, PS3.D



Our patrons had so much fun with the Captivating Chemistry Show. Thank you for making chemistry so much fun for our families!

Jen Ersteen, Vernon Area Public Library District



Family Fun Programs

You provide tables and volunteers; we bring everything else! Ideal for schools, libraries, and community centers, these hands-on sessions feature activity stations of experiments, games, math, science, and make-and-take projects designed to engage and interest all ages

If you would like more information about adding a literacy component to a Family Fun program, email us at Outreach@discoverycentermuseum.org.

6–10 stations

Length: 60–90 minutes

Participants: 300 maximum

Cost: \$500; Travel fees may apply.

2–5 stations

Length: 30–60 minutes

Participants: 150 maximum

Cost: \$300; Travel fees may apply.



Outer Space

Launch a rocket, explore an exoplanet, and space out in the Solar System! Take on an engineering challenge by designing a spacecraft, a Mars rover, or a lunar base.

NGSS: PS2.A, PS3.C, ETS1.A, ETS1.B, ETS1.C, ESS1.A

Fun & Games

Play games from around the world, create a mosaic masterpiece, fashion an intricate design, create 3-D shapes and more. Shhh! don't tell them it's math!

NGSS: ETS1.A, ETS1.B, ETS1.C

Little Scientists

Manipulate magnets, compare colors, and fool with physics! Explore the world through activities designed for families with children grades **PreK-2**.

NGSS: ETS1.A, ETS1.B, ETS1.C, PS1.A, PS4.A, PS4.B

IELDS: 8.A.EDa, 19.A.ECa, 19.A.ECd



Afterschool Enrichment / Science Club Activities

We bring the excitement of science learning to you! Our active programs provide all materials plus playful engagement for your students and family groups. Choose from these topics for hands-on science fun!

Grades: Varies by topic

Length: 45–60 minutes

Participants: 30 maximum

Cost: \$150 (\$70 each additional program*). Travel fees may apply.

Blast Off **

Grades: 1–6

Explore forces and motion with these paper rockets that launch using air power and fly so far they hit the gym wall!

Engineering Adventure ***

Grades: K–8

Design and construct your own contraption to fly, spin, or stay put, then test it in our vertical wind column.

Rolling Ramps***

Grades: K–2

Construct a crazy coaster or simulate a sensational slide with our set of ramps and balls of all sizes.

Thrill Ride **

Grades: 1–8

Experiment with potential and kinetic energy as you invent a rollercoaster, and take a marble on a wild ride!



* Additional program discount applies for programs of the same topic held on the same day at the same location.

** This program has a special space requirement.

*** Expanded age range available for younger participants.

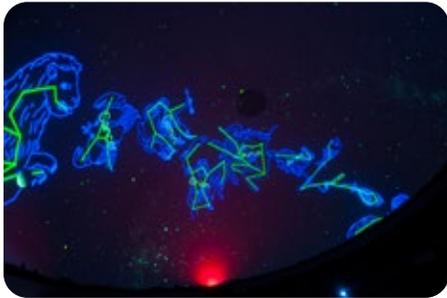
Virtual Outreach

With the help of technology, PreK to Grade 8 students will enjoy live, interactive exploration of a STEM topic designed to spark interest in science and inspire students to learn more.

Astronomy Shows

We'll show you the moon and stars with our Virtual Astronomy Shows! Presentations are tailored to your grade level and unique to this virtual program.

Grades: Varies by topic
Length: 30-45 minutes
Participants: 30 maximum
Cost: \$150 (\$60 for each additional show*)



Greek Mythology: Ancient Stories in the Stars

Grades: K-8

Come listen to some very old tales and explore the world of heroes, monsters, and demi-gods hidden among the stars with these stories inspired by the classic Greek myths.

NGSS: ESS1.A, ESS1.B

Our Solar System

Grades: K-8

Take a trip through our local stellar neighborhood and get to know the planets closest to us. Learn some fun facts about the planets in our solar system, take a (safe) look at the nearest star, and find out what NASA has been up to lately.

NGSS: ESS1.A, ESS1.B; 1-PS4.B



You were awesome. The kids and I enjoyed you so much. Maybe this will become a yearly event for our school.

Mike Cantrell, South Middle School, Henderson, Kentucky

Science Shows

These dynamic demos feature experiments, investigations, and explanations woven together in a stimulating presentation.

Grades: K-8
Length: 30-45 minutes
Participants: up to 95 computers
Cost: \$300 (\$250/additional show*)



The Liquid Nitrogen Show

\$50 lab fee

Excitement goes up as the temperature drops in this ultra-cold show! Witness instant phase changes and identify the differences in states of matter as they succumb to the frigid world of liquid gas!

NGSS: PS1.A, PS1.B, PS3.A, PS3.B

The Captivating Chemistry Show

Solids, liquids, and gasses combine to create chemical changes that look like magic. Chemistry becomes apparent using surprising reactions that create colors, fabricate foam, and explode!

NGSS: PS1.A, PS1.B, PS3.A, PS3.B, PS3.C, PS3.D



Don't see quite what you are looking for? Contact us and our team of educators will work to meet your needs.

Discovery Center Education Options and Pricing

	Program	Group Size Limit	Fees	Grade	
Museum Visits	Regular Field Trip	100	\$6.50 / person		
	STEM Lab Add Ons*	Microscope Adventures	25	\$65	4-8
		Slime & Chemistry	25	\$85	K-5
		Roller Coaster Science	25	\$65	1-8
		Robot Rendezvous	25	\$65	Pre-K-8
	Early Childhood STEAM Lab Add Ons*	Shapes & Colors	20	\$45	Pre-K-K
		Big Bird's Adventure	25	\$30 / class	Pre-K-1
	Planetarium Add Ons*	Discover the Night Sky	25	\$30 / class	2-8
		Earth, Moon, and Sun	25	\$30 / class	3-8
		*Group size may need to be smaller based on classroom space limitations.			
Special Exhibit Add On	Discovery Town	50	\$1 extra	Pre-K-2	
In-Person Outreach	Hands-On Classes	Magnetic Attractions	30	\$150 / \$70	K-3
		Slime & Chemistry	30	\$150 / \$70	K-8
		Color & Light	30	\$150 / \$70	K-5
		Engineering Challenge	30	\$150 / \$70	3-8
		Fling & Wing	30	\$150 / \$70	2-6
	Early Childhood	We Can Build It	20	\$125 / \$50	Pre-K
		Playful Sounds	20	\$125 / \$50	Pre-K
		Balancing Act	20	\$125 / \$50	Pre-K
	Science Carts	Weather Cart	30	\$150 / \$60	1-8
		Sounds of Science	30	\$150 / \$60	1-8
	Portable Planetarium	The Sky Tonight	30	\$200 / \$70	K-8
		Ancient Stories in the Stars	30	\$200 / \$70	K-8
		Our Solar System	30	\$200 / \$70	K-8
	Assembly	Liquid Nitrogen	150	\$350 / \$250	K-8
		Captivating Chemistry	150	\$300 / \$250	K-8
	Family Fun	Outer Space	300	\$500	
		Fun & Games	300	\$500	
		Little Scientists	300	\$500	Pre-K-2
	Afterschool Enrichment / Science Club	Blast Off	30	\$150 / \$70	1-6
		Engineering Adventure	30	\$150 / \$70	K-6
	Rolling Ramps	30	\$150 / \$70	K-2	
	Thrill Ride	30	\$150 / \$70	1-8	
Virtual	Astronomy Shows	Greek Mythology	30	\$150 / \$60	K-8
		Our Solar System	30	\$150 / \$60	K-8
	Science Shows	Liquid Nitrogen	95 computers	\$350 / \$250	K-8
		Captivating Chemistry	95 computers	\$300 / \$250	K-8

To start the reservation process:
www.discoverycentermuseum.org/group-visit-request-form

For questions:
fieldtrip@discoverycentermuseum.org
 or call 815-972-2828

To start the reservation process:
www.discoverycentermuseum.org/education/stem-outreach/outreach-request-form

For questions:
outreach@discoverycentermuseum.org
 or call 815-972-2844

To start the reservation process:
www.discoverycentermuseum.org/education/stem-outreach/outreach-request-form

For questions:
outreach@discoverycentermuseum.org
 or call 815-972-2844