



MICHIGAN



Science

CENTER

GROUP GUIDE

The logo for the Michigan Science Center Group Guide is set against a dark teal background with a faint periodic table. The word "MICHIGAN" is in a white, sans-serif font at the top. Below it is a stylized logo consisting of a globe on a classical column, a lightbulb, and a Bohr-style atom. The word "Science" is written in a large, white, serif font, with the "S" being particularly large and decorative. Below "Science" is the word "CENTER" in a smaller, white, sans-serif font. At the bottom, the words "GROUP GUIDE" are written in a large, bold, black, sans-serif font.

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During a trip to the Michigan Science Center, interact with 250+ hands-on exhibits that explore Space, Health, Physical Science, Engineering and more. All are included in group admission!

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With live stage shows, a 4D theater, and a planetarium, there's always something new to discover and learn at MiSci.

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Bring the Michigan Science Center to you with our Traveling Science program featuring engaging science workshops and presentations, or with our new ECHO distance learning program, bringing quality content to students across the state.

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At MiSci, we aim to inspire educators as well as students! That's why we provide you with the tools you need to successfully engage your students on a field trip and in the classroom.

EDUCATION PROGRAMS

MiSci offers educational programming for students grades PreK–12. See pages 3–5 for details.

Offerings by Grade Level		PreK - K	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Highschool
Learning Labs	From Seed to Flower	●									
	Sounds All Around		●	●							
	Laser Mazes				●	●	●				
	Gravity Games							●	●	●	
	Translating the Message										●
	Engineering Design Lab – Eggpollo 11				●	●	●	●	●	●	●
Planetarium	Stories in the Sky	●									
	What's Up? Your Guide to the Night Sky		●	●							
	Junior Atronomer				●	●	●				
	Our Place in Space							●	●	●	
	Sunstruck										●
Theaters	Chrysler Science Stage Show	●	●	●	●	●	●	●	●	●	●
	DTE Sparks Theater		●	●	●	●	●	●	●	●	●
	Toyota Engineering 4D Theater		●	●	●	●	●	●	●	●	●
	Kids Town Experience	●									

Grade level recommendations are based upon current Michigan Science Standards.

OUR VISION

To empower and enrich all children and all communities with STEM.

OUR MISSION

To inspire curious minds of all ages to discover, explore and appreciate science, technology, engineering and math in a creative, dynamic learning environment.

The Michigan Science Center is a 501(c)(3) nonprofit organization.

NGSS Connections

Physical Science

Life Science

Earth & Space Science

Engineering

STEM Playground

Our new STEM Playground lets you tinker, build, fly, and play! Exercise your STEM skills to create and test paper airplanes, build with blocks, learn about angles and wind direction on a sail car table, and discover through play.

Spark!Lab

Spark!Lab, from the Smithsonian Institute, helps curious minds of all ages engage in the process of invention. Enjoy self-led invention challenges in an interactive space designed to support creative and collaborative thinking.

Health and Wellness

Discover the importance of good nutrition and fitness, uncover the hidden factors that affect your health both now and in the future, and learn to make smart choices to improve your health.

Motion

Explore the fundamental properties of matter and energy with circuits, electrical loads, magnetic fields, simple machines, light and more.

Light and Sound

From the Illuminarium to the Seashell Pipes to the walk-in kaleidoscope, this is the gallery to experiment with sounds, colors, reflection, waves, and more.

Space

Marvel at the wonders of the Universe as you explore the history of human space travel, learn about rocket technology, tour the galaxy, travel to the Sun and more.

Engineering

Become an engineer as you walk our 80-foot-long Mini Mac Bridge, travel our roundabout, work the U.S. Steel Fun Factory, and more.

Kids Town

Kids Town features engaging activity areas in a child-scaled "town" just for guests ages 2 – 5, allowing them to develop social and motor skills while exploring basic science concepts.

LEARNING LABS & PLANETARIUM SHOWS

These grade-level appropriate experiences provide a great way to connect a day at MiSci to your curriculum. Add a Learning Lab or Planetarium show and take students on an in-depth exploration of STEM principles.

Lab Length: Approx. 30-45 minutes (Booking minimum of 15 students and per session maximum of 25 students. Learning Labs are only available for reservations of 125 or fewer students.)

Planetarium Length: Approx. 30-45 minutes

Grades PreK – K

Learning Lab: From Seed to Flower

Explore the life cycle of plants and their basic needs as you plant a seed to take home.

Planetarium: Stories in the Sky

Learn about the rotation of the Earth, light pollution, our animal friends in the night sky, and the stories that go with them.

Grades 1-2

Learning Lab: Sounds All Around

Students will explore the science of sound – how it's created, what makes sound move, and how we can change sound – before creating their own sound-effects recording.

Planetarium: What's Up? Your Guide to the Night Sky

Discover constellations, stars, and planets in the current season along with the latest news on astronomy and space.

Grades 3-5

Learning Lab: Laser Mazes

Reflect and redirect light as you focus in on a mirror maze challenge! Students will learn about concepts such as reflection, refraction, and energy transfer.

This lab only available for groups of 75 or fewer students

Planetarium: Junior Astronomer

Explore the patterns in the cosmos including the phases of the Moon, reason for the seasons, and current constellations in the night sky.

Grades 6-8

Learning Lab: Gravity Games

Discover patterns within our Solar System as you help demonstrate the relationship between the Sun, Earth and Moon.

Planetarium: Our Place in Space

This show begins with a look at the state of Michigan and gradually zooms out to reveal the size of the planets, the Sun, the Milky Way, and finally the Universe. Join us for a humbling look at the true size of our planet.

Grades 9-12

Learning Lab: Translating the Message

Try your hand at DNA extraction and learn how DNA transcription determines heredity and genetic traits.

Planetarium: Sunstruck

Its energy has supported life on Earth for millennia, but may threaten our way of life. Travel to the future to discover our Sun's connection to the Universe's life cycle.

Grades 3-12

Learning Lab: Eggpollo11

Put your engineering skills to the test as you design a carrier to safely land an egg on the moon!

Theater Experiences

Chrysler Science Stage Show

Grades PreK–12

Join our performers as they conduct thrilling live science demos for all ages. You'll explore STEM concepts in action ... and reaction!

Shows last approximately 30 minutes.

DTE Energy Sparks Theater

Grades 1–12

Enter our amazing Faraday cage and witness the incredible "hair-raising" Sparks Electricity Show as performers demonstrate how electricity affects the world in all forms through electromagnets, static electricity, plasma, and exploring different states of matter.

Shows last approximately 30 minutes.

Dassault Systèmes Planetarium

Grades PreK–12

Go inside a virtual universe as you fly past 9,000 stars, planets, galaxies and more. Our shows are led by a live presenter and are followed by question and answer sessions.

Shows last approximately 50 minutes.

Toyota Engineering 4D Theater

Put on some 3D glasses and join us in our newly renovated theater for an incredible sensory experience! MiSci features the world's only 4D version of National Geographic's Extreme Weather film and transports viewers from the base of glaciers to the treetops.

Shows last approximately 30 minutes.



SUMMER CAMPS



Join us for **Summer Science Camp** featuring theater shows, live presentations, 250+ hands-on exhibits, field trips and more. Visit Mi-Sci.org/camps to learn more and to register.

DATES	Theme	PK-K	Grades 1-2	Grades 3-5	Grades 6-8
June 25-29	ANIMALS	Prehistoric Safari	Under the Sea	Junior Marine Biologist	
July 9-13	WEIRD SCIENCE	It's a Bonding Thing!	Slimy Science	Fizz! Bang! Science!	
July 16-20	SPACE	Exploring Space	Outer Limits	To Infinity, and Beyond	
July 23-27	ENVIRONMENTAL SOLUTIONS		Earth Science	Energy Sustainability	Environmental Task Force
July 30- Aug 3	ROBOTICS		Language of 1's and 0's	Programing and Coding	Robotic Engineer
Aug 6-10	MAKERSPACE		Marvelous Machines	Creative Invention	Design, Build, Create
Aug 13-17	CSI/FORENSICS	Junior Detective	Crime Investigation	Forensic Tech Training	
Aug 20-24	WILDERNESS ADVENTURES	Grow it Tall!	Wilderness Adventures	Survival Games	

Traveling Science Program

Programs start at \$300



Science Festivals

Host a science festival during the day for the entire school or in the evening for a fun family engagement event. New! Energy on the Move: Explore 10 hands-on activities about renewable and non-renewable resources, energy transfer, sustainability, and more!

Sponsored by Aramco



Group Presentations

Assemblies are a great way to engage and educate groups of up to 250 students. All programs feature large scale science demonstrations such as: liquid nitrogen, fire tornadoes, Tesla coils and more!



Hands-on Workshops

MiSci educators visit classrooms to introduce or reinforce topics in your curriculum. Programs can accommodate up to 30 students and typically last 45 minutes.

Custom Programs

Custom Traveling Science Programs are available upon request. Contact our Outreach Team at Outreach@Mi-Sci.org or call 313.577.8400, ext. 238 for additional information and Traveling Science reservations.

View full list of programs at Mi-Sci.org/educators/traveling-science/

DISTANCE LEARNING NEW!



What is ECHO?

Visit the Michigan Science Center and join us for a great learning experience without leaving your classroom! Our new ECHO program brings live science demonstrations and activities directly to your students over the internet.

Why ECHO?

Our videoconferencing programs allow you and your students to participate in highly interactive and fun learning in real time. We created informative, entertaining programs focused around the Next Generation Science Standards. No special hardware is required to bring a virtual visit to your classroom. Connections are made with a computer, webcam, projector and high speed internet.

ECHO

MiSci's **DISTANCE LEARNING PROGRAM**

Virtual visits include:

- 45-minute interactive program
- Hands-on materials for 30 students shipped to your school
- Complimentary tech check prior to program

Virtual Visit Topics

- Grades K-5: Frostology** - Make fluffy snow and sparkling white slime! Learn the science behind all things frosty. This seasonal program runs for a limited time! \$150
- Grades 2-4: Know Where it Grows** - Environmental conditions determine where and when plants grow. We can design solutions to reduce the impacts of weather related hazards on plants grown for food in a community garden. \$150
- Grades 3-5: Burn Boss Training** - Engineers use controlled fires for ecological reasons, including restoring diverse habitats for specially adapted plants and animals. Work together and learn more about the habitats of endangered plants and animals in areas that need fires to thrive. \$150
- Grades 4-6: Reach for the Stars** - Join us on a hands-on journey through the stars. Watch demonstrations with dry ice and plasma and participate with your own hands-on investigations. \$150

For more info and to schedule a virtual visit, contact the Distance Learning Coordinator at 313.577.8400, ext. 443 or by emailing ECHO@Mi-Sci.org. Reservations should be made at least four weeks in advance to ensure materials can be shipped to your location. You can also visit the Center for Interactive Learning and Collaboration to book any of our programs online.

Outreach Programs supported by



Group Reservations: 313.577.8400, Option 5

Professional Development

MiSci hosts fun, interactive professional development sessions focused on inquiry-based learning and the new Michigan Science Standards. Custom programs are available by request. Dates are subject to change – please check our website for up-to-date program information.

Teacher PD Dates

March 15 Making the most of Science Test Prep

April 19 STEM for Early Childhood Classrooms

June 21 Kickoff to a Super STEM Summer

Visit Mi-Sci.org/educators/resources/ for more information and to register.

Membership

Educators receive 20 percent off MiSci memberships with educator ID. Enjoy free or discounted shows and special exhibits, invites to members-only events, free or discounted admission to 300+ science centers around the world and more. Contact Membership@Mi-Sci.org to learn more.

Explore Store

Educators receive 10 percent off purchases in the MiSci Explore Store with educator ID. Stock up on great STEM gadgets and gear for your classroom.

Educator Extra

Subscribe to our monthly Educator Extra e-newsletter for MiSci news and special offers! Visit Mi-Sci.org/educators to sign up.

Virtual Tour

Did you know that MiSci has a Virtual Tour? Check out our exhibits from the comfort of your classroom to plan your field trip! Visit Mi-Sci.org/visit/family-groups/venue-rental.

Educator Guides

Our website is the place for Educator Guides, standards alignment information, lesson plans, chaperone guides, scavenger hunts and other STEM resources. If you can't find what you're looking for, give us a call!

Sponsors of Science

The Sponsors of Science program supports nearly 15,000 students each year for subsidized field trips for schools where over half of all students receive free or reduced lunch. Visit Mi-Sci.org/SponsorsOfScience for more information.

Super Sparks: All Access

Second Tuesday of every month, Feb. 2018 – June 2018

Join us for a special sounds-down, lights-up sensory friendly experience once a month. Learn more about programming, partners, events, social stories and accessibility for Super Sparks on our website. Mi-Sci.org/Accessibility.

GROUP PACKAGES

Discovery

Designed for grades 1–12, ages 6–18

Explore 1 - \$9

250+ Hands-On Exhibits
+ **Pick 1 Add-On Experience**

Explore 2 - \$12

3+ hour visit suggested

250+ Hands-On Exhibits
+ **Pick 2 Add-On Experiences**

Tiny Tots

Designed for Pre-K–K, ages 4–6

Explore 1 - \$6

250+ Hands-On Exhibits
Kids Town Experience

Explore 2 - \$9

2+ hour visit suggested

250+ Hands-On Exhibits
Kids Town Experience
+ **Pick 1 Add-On Experience**

Add-On Options

Toyota Engineering 4D Theater
Sparks Theater
Live Chrysler Science Stage Show
Planetarium Show
Learning Lab

MiSci's Sponsors of Science program supports student admission costs for a limited number of school groups each year. Visit our website for more information at Mi-Sci.org/SponsorsofScience.

Group Rate Guidelines

- Group rates apply to groups of 12 or more people.
- All PreK – K groups must maintain a 5:1 student to adult ratio.
- All grade 1 – 12 groups must maintain a 10:1 student to adult ratio.
- Adult chaperones (includes teachers) within a 10:1 ratio for grades 1-12 and a 5:1 ratio for grades PreK-K receive \$6 off group admission rates.
- Make reservations no later than two weeks in advance and secure your 50 percent deposit.
- Please note, MiSci does not issue refunds. To view our entire refund policy, please visit our website.
- All add-on programs have limited availability and are subject to change – book early to confirm your special programs.

PRE-VISIT CHECKLIST

Ready to Book Your Visit?

- Select Experience.** Our programs are designed to support Michigan's Science Standards. Visit the website for standards alignment information and educator guides or contact MiSci Reservations for recommendations!
- Make Reservation.** Complete the online Field Trip Reservation form on our website at Mi-Sci.org/fieldtrips. Make the process faster by pre-selecting a group package type, add-on(s), and trip date. Need suggestions? Give us a call!
- Recruit Chaperones.** Recruit chaperones and provide each with a copy of the Chaperone Guide found on our website. Remember, all grade 1-12 groups must provide one adult chaperone for every 10 students and all grade PreK-K groups must provide one chaperone for every 5 students.
- Secure Deposit.** Confirmation of trip date and invoice are sent via email. A 50 percent field trip deposit is due two weeks prior to your visit.
- Prep Students.** MiSci will provide copies of your group itinerary upon arrival. Please ensure all chaperones and students have a clear understanding of MiSci expectations. Remind your students to leave backpacks at school, as they are not permitted in the building.
- Pack Lunch.** Remind students to bring a sack lunch or money to purchase items at the Cosmic Café.
- Call MiSci.** If your reservation date, arrival time, or other details change, you are responsible for contacting MiSci at least 48 hours prior to your scheduled visit. Still have questions? See FAQs on the website or give us a call – we're happy to chat!
- Arrive Smoothly.** For ease of check-in, arrive with an accurate headcount of students and adult chaperones (includes teachers). Your group will be provided a complimentary lunch storage bin and coatrack for use during the day.

Test Prep Days at MiSci

Sold Out!

All 2018 dates are full, but Test Prep Days will be back in 2019. This program helps students internalize concepts learned in the classroom using engaging shows, demos and hands-on experiences. Students leave feeling energized and confident for their next science test. Learn more at Mi-Sci.org/educators/mstep-prep-days/.

