



MICHIGAN

Science

CENTER

**GROUP GUIDE**  
Fall/Winter 2018

# TABLE OF CONTENTS



## **Educator Resources** **pg 2**

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.

## **In the Classroom** **pg 3-4**

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.

## **In the Museum** **pg 5**

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!

## **Must Sees** **pg 6**

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

# EDUCATOR RESOURCES



## 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. Please check our website for up-to-date program information.

## 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](mailto: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](http://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](http://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](http://Mi-Sci.org/SponsorsOfScience) for more information.

# IN THE CLASSROOM

## 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!



### 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](mailto:Outreach@Mi-Sci.org) or call 313.577.8400, ext. 474 for additional information and Traveling Science reservations.

View full list of programs at [Mi-Sci.org/educators/traveling-science/](http://Mi-Sci.org/educators/traveling-science/).

# DISTANCE LEARNING



## 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.

Outreach Programs supported by



## 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** - Jump in knee deep into our snowy and wintery virtual visit! Make fluffy snow and sparkling white slime! Learn the science behind all things frosty. This seasonal program runs for only a limited time! Book November through March. \$150.00

**Grades 2 – 4: Know Where it Grows** - Environmental conditions, such as weather, determine where and when plants can grow. We can design solutions to reduce the impacts of weather related hazards on plants grown for food in a community garden. \$150.00

**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. \$150.00

To reserve or ask questions about a program, contact our Distance Learning Coordinator at 313.577.8400, ext. 474 or by emailing [ECHO@Mi-Sci.org](mailto: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 reserve any of our programs online.

[www.Mi-Sci.org](http://www.Mi-Sci.org)

## NGSS Connections

- Physical Science
- Life Science
- Earth & Space Science
- Engineering

## EXHIBIT SPACES

### 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.

## 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 PreK - K.*

### 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 1 - 2.*

### 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 3 - 5.*

### 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 6 - 8.*

### 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 9 - 12.*

## Theater Experiences

### NGSS Connections

- Physical Science
- Life Science
- Earth & Space Science
- Engineering

### 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 30-45 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.*



# EDUCATION PROGRAMS

Offerings by Grade Level		PreK	Kindergarten	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Highschool
Planetarium	Stories in the Sky	●	●									
	What's Up? Your Guide to the Night Sky			●	●							
	Junior Astronomer					●	●	●				
	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 science, technology, engineering and math (STEM).

## OUR MISSION

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

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

# GROUP PACKAGES

## Discovery

*Designed for grades K–12, ages 5–18*

### 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 PreK, ages 4–5*

### 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

*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](http://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 5:1 ratio for grades PreK - K receive \$6 off group admission rates. Additional chaperones will pay the standard group rates (discount applies to educational groups only).
- Make reservations no later than three weeks in advance and pay 50 percent deposit no later than two weeks in advance.
- Please note, MiSci does not issue refunds. To view our entire refund policy, please visit our website.

# 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.
- Make Reservation.** Complete the online Field Trip Reservation form on our website at [Mi-Sci.org/fieldtrips](http://Mi-Sci.org/fieldtrips). Make the process faster by pre-selecting a group package type, add-on(s), and trip date.
- 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 (please be sure to check your spam folder). A 50 percent field trip deposit is due two weeks prior to your visit. Any trip changes must be made in writing by replying to the confirmation email.
- 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. Check [Mi-Sci.org/educators/resources](http://Mi-Sci.org/educators/resources) for more tips.
- Pack Lunch.** Remind students to bring a sack lunch or money to purchase items at the Cosmic Café.
- 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 coat rack for use during the day.

