



# EDUCATION at MSI

## Education Offerings

Help children achieve their full potential in science with STEAM learning experiences inside and outside the classroom. Our hands-on programs help students explore science, technology, engineering, art, and math skills relevant to today's world. Each provides the tools, experiences and trained STEAM professionals that will excite and engage students, families, educators, schools, and communities.

For more information, contact  
[Learning@msichicago.org](mailto:Learning@msichicago.org)



museum of  
**science+industry**  
chicago

5700 S. DuSable Lake Shore Drive  
Chicago, IL 60637

[msichicago.org](http://msichicago.org)

# Professional Development

Professional development at MSI is designed to support educators where they are. Whether you are an expert or a novice to STEAM, we have something that can support your educator's needs.

## OpenSciEd Curriculum Launch

Teachers are introduced to the OpenSciEd middle school curriculum and materials and learn routines embedded into OpenSciEd units.

## Foundations of NGSS

This mini course helps teachers integrate instruction aligned with Next Generation Science Standards across grade levels and to center instruction on student sensemaking about phenomena and problems. It is designed for educators who have limited familiarity with teaching and learning within the NGSS.

## Everything You Always Wanted to Know about NGSS (but were afraid to ask!)

Teachers will be introduced to the Next Generation Science Standards, while addressing four questions: Why do we need Next Generation Science Standards? What instructional shifts are required? How are standards structured? What are three critical classroom features for implementation?

## Air: The Atmosphere Outside and Inside Your Classroom

This program focuses on pedagogies that support Next Generation Science instruction in three areas - equity-minded instruction, student-centered learning, and supporting scientific sensemaking - to develop an understanding of climate, atmosphere, and our relationship with the Earth.

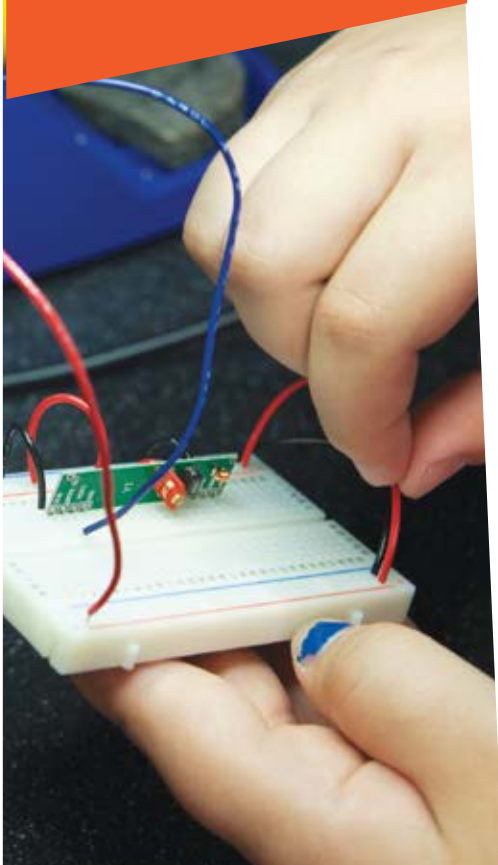
## STEM 101

This is a customized offering to meet the needs of your educators are in STEM immersion. This PD introduces the engineering design process, 5 E's, and integrating 21st century skills into your curriculum.





# Whole School Transformation



## Science Leadership School Partners

This three-year program provides a structured process for evaluating current STEM programs, and then creating and implementing entirely new STEM curriculums. MSI educators will work with teachers to develop and implement school-wide change over time.

- A three-year program with approximately 40 hours of in-person (at MSI) and virtual work sessions per year for teacher leaders. Supporting administrators will attend 6 hours of work sessions. A cross-disciplinary team of 6-10 teachers will be required to set aside at least 14 hours of meeting time at their school.
- Participants: K-8 schools; application required from a designated teacher leader and supporting administrator.
- Recruiting for the 2024-2025 school year will begin in January 2024.

## Science Leadership School Partners Premium

- A three-year program with approximately 60 hours of MSI in-person and virtual work sessions per year for teacher leaders. Supporting administrators will attend 6 hours of work sessions. A cross-disciplinary team of 6-10 teachers will be required to set aside at least 14 hours of meeting time at their school.
- Participants: K-8 schools; application required from a designated teacher leader and a supporting administrator.
- Four buses per school for field trips and priority access to other on-demand MSI programs (such as Curiosity Stations and Learning Labs).
- Recruiting for the 2024-2025 school year will begin in January 2024.

## Makerspace Integration & Training

### **MAKE\_X**

The Make\_X program at MSI trains K-12 educators to leverage makerspaces and other creative environments interwoven with Design Thinking, hands-on inquiry-based learning to achieve a wide variety of educational goals. We will utilize The Grid, our makerspace and project management tool, designed and developed by the MSI Fab Lab to support differentiated learning and assessment in the classroom or community.

\*5 Day Bootcamps on Grid System and Makerspace Strategy and 4 core tech modules (3D printer, laser and vinyl cutters, digital embroiderers) available upon request.

## Out-of-School Time Training and Programs

### Out-of-School Time Educator Program

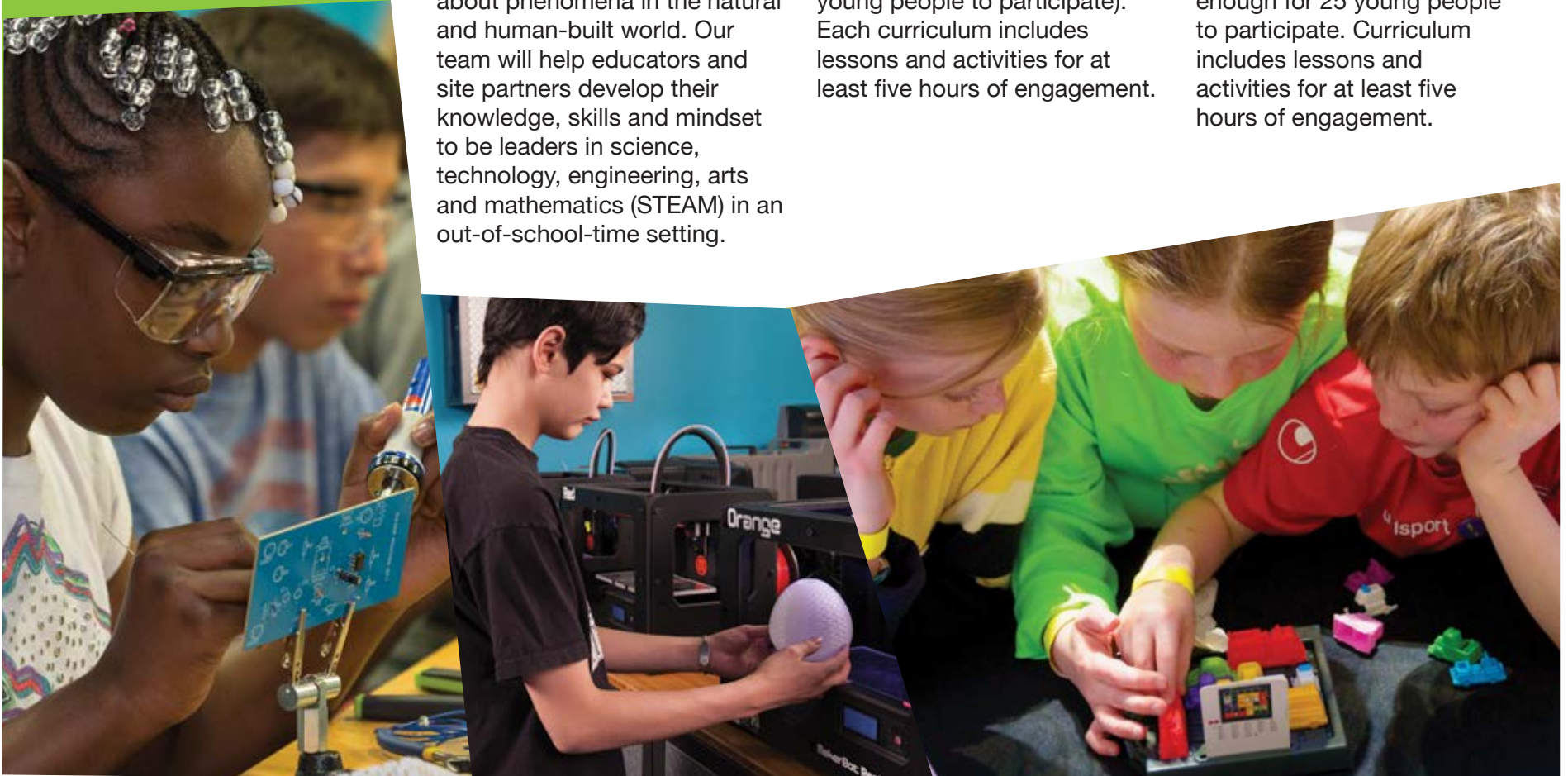
This program supports the development of inclusive and equitable learning in out-of-school-time (OST) settings. Our OST partners will motivate young people to learn about phenomena in the natural and human-built world. Our team will help educators and site partners develop their knowledge, skills and mindset to be leaders in science, technology, engineering, arts and mathematics (STEAM) in an out-of-school-time setting.

### Out-of-School Time Science Curriculum Training Plus

In-person training and digital curriculum for educators to bring STEAM into out-of-school time programs, including 25 student journals and one materials bin (enough for 25 young people to participate). Each curriculum includes lessons and activities for at least five hours of engagement.

### Out-of-School Time Science Curriculum Training Premium

In-person training and digital curriculum brings STEAM into out-of-school time programs, including 75 student journals and three materials bins, each with enough for 25 young people to participate. Curriculum includes lessons and activities for at least five hours of engagement.





## Outreach at Your School

### Labs

Led by a Museum educator, Learning Labs connect with classroom curriculum and increase science knowledge, engage students in the scientific process, and provide insight into STEM careers. Duration 60 minutes.

### STEAM Clubs

STEAM Clubs explore Earth Science topics and engage kids in fun, hands-on STEAM learning activities using science tools and related materials. Curricula are written for students in grades 3-8 but can be modified for younger grades. MSI staff will come to your site weekly to provide inquiry-based lessons in a STEAM topic.

### STEAM NIGHTS/ Out of School Time

At MSI STEAM Nights families, students, and community members spark their creativity with hands-on live science experiences led by MSI educators. Bring the wonder of science and the fun of MSI to your next school or community science event by customizing two of our favorite interactive science demonstrations. Our highly trained and dynamic facilitators will engage your guests for two hours, providing build-and-play activities and memorable experiences.



# Onsite Programs at MSI

## Labs

Explore science hands on in a 60-minute experience that highlights real world connections. Labs are aligned to NGSS (Grades 3 – 12) and can accommodate up to 30 students.

## CAMP! @MSI

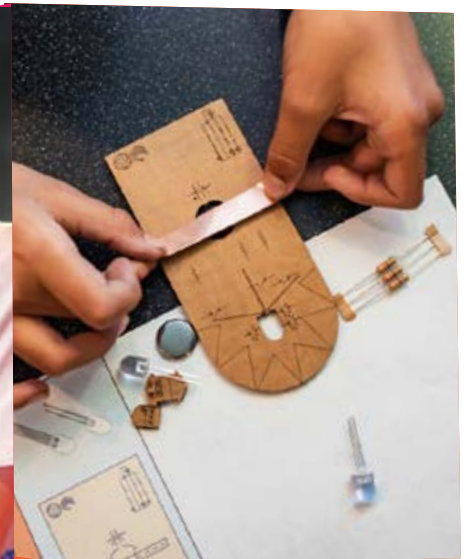
Explore, innovate, and create on your school breaks with MSI! We provide STEAM content at your child's level to build their confidence and skills through hands-on learning.

## Career & STEAM Events

Museum-wide career celebrations invite kids and families to learn about interesting jobs straight from the STEAM professionals with an array of dynamic speakers, hands-on activities, and one-on-one discussions. MSI partners with education organizations to provide space and access to Museum guests to showcase their own STEAM programs and student accomplishments.

## Innovation Studio

Allow students to discover the processes of design thinking and innovation as they become innovators, whether at MSI or your school or community center. The spirit of the studio is one of inspiration, self-direction, creativity, and exploration of the world through making.





# EDUCATION at MSI

For more information, contact  
[Learning@msichicago.org](mailto:Learning@msichicago.org)



museum of  
**science+industry**  
chicago

5700 S. DuSable Lake Shore Drive  
Chicago, IL 60637

[msichicago.org](http://msichicago.org)

