

STEM Education and Workforce Resources



MHTA Programs

getSTEM

getSTEM is a web portal designed to connect Minnesota educators with science and technology businesses, in order to better prepare students for post-secondary education programs and careers in science, technology, engineering, and mathematics (STEM). The **STEM Ambassadors** page is a dedicated space on getSTEM that lists STEM professional who are interested in more directly volunteering in a variety of ways.

getSTEM-mn.com

Tech Experience Tours

MHTA and its Foundation provides a unique event for students interested in learning more about technology and the high tech business world. They connect high school students with STEM-focused companies and high-tech businesses in Minnesota. They work with a number of education institutions and non-profit organization to provide high school students with the opportunity to have a first-hand encounter with a high-tech work environment.

mhta.org/tech-experience-tours

SciTechsperience

SciTechsperience is the internship program that connects college students studying science, technology engineering and mathematics (STEM) disciplines to paid internships in small to mid-sized Minnesota companies. Companies receive assistance finding qualified candidates and a \$1:\$1 matching grant to cover 50% of the intern's wages (capped at \$2,500) when they hire a student through SciTechsperience.

scitechmn.org

Advocates for STEM Education

MN Compass – STEM Overview

MN Compass provides data, research, and resources to support people in STEM and address disparities.

mncompass.org/education/stem/overview

SciMathMN

SciMathMN is a non-profit, statewide education and business coalition advocating for quality PreK-16 science, technology, engineering and mathematics education based on research, national standards and effective practices.

scimathmn.org

Minnesota STEM Network

The MN STEM Network strengthens collaborations among business, education, civic, and community leaders to increase the appeal of STEM and communicate its importance to Minnesota's future; promotes opportunities for students and their families to engage in high-quality STEM experiences; and fosters continuous improvements in STEM teaching and learning.

scimathmn.org/mnstemnet

Change the Equation

Change the Equation works at the intersection of business and education to ensure that all students are STEM literate by collaborating with schools, communities, and states to adopt and implement excellent STEM policies and programs.

changetheequation.org

STEM Connector

STEMconnector is "The one-stop for STEM Information." STEMconnector works closely with corporations and other organizations to provide them with a set of tools and resources that support their corporate development, corporate structure and smart STEM investments.

stemconnector.org

National Academy of Engineering

The goal of this website is to promote broad implementation by the engineering community of the findings and recommendations presented in the 2008 NAE report, *Changing the Conversation: Messages for Improving Public Understanding of Engineering*.
engineeringmessages.org



STEM Workforce Program Providers

Best Prep

BestPrep is a statewide nonprofit organization with a mission to prepare students with business, career and financial literacy skills through hands-on experiences that inspire success in work and life.

bestprep.org

Right Track

Right Track is Saint Paul's pipeline for youth career development and building a diverse future workforce. Right Track brings together the City of Saint Paul, Saint Paul Public Schools, local businesses, and community-based organizations to provide employment opportunities and professional skills training for youth.

righttrack.stpaul.gov

Genesys Works

Genesys Works is a 501(c)(3) not-for-profit organization that enables inner-city high school students to break through barriers and discover through meaningful work experience that they can succeed as professionals in the corporate world.

genesysworks.org

STEP-UP Achieve

STEP-UP Achieve is the nationally-recognized City of Minneapolis summer jobs program for youth ages 16-21. STEP-UP Achieve recruits, trains, and places low-income Minneapolis youth with diverse skills and interests in jobs with top Twin Cities businesses.

achievempls.org/stepupachieve

STEM Museums, Centers, or Programs

MN-STEM

This website links youth and families with Minnesota's world of STEM.

mn-stem.com

Science Museum of Minnesota

The Science Museum of Minnesota is known worldwide for its interactive exhibits and dynamic traveling exhibitions. The museum provides innovative staff development programs for teachers throughout the region and science education outreach programs for K-12 classrooms.

smm.org

The Bakken Museum

A one-of-a-kind museum exploring the mysteries of our electrical world. Inspiring a passion for science and its potential for social good by helping people explore the history and nature of electricity and magnetism.

thebakken.org

The Works Museum

The Work's mission is to inspire the next generation of innovators, engineers, and creative problem solvers. Their exhibits, programs, and design challenges engage kids in science, technology, and engineering and make learning memorable and fun.

theworks.org

Leonardo's Basement

Leonardo's Basement provides year-round, inventive workshop classes to help people of all backgrounds and ages apply the powers of imagination, curiosity, problem solving, and risk taking to create engineering, art, and technology projects.

leonardosbasement.org

High Tech Kids

High Tech Kids is a nonprofit that supports the Minnesota Renewable Energy Challenge, Minnesota FIRST LEGO League, and Minnesota FIRST Tech Challenge each fall/winter.

hightechkids.org

Minnesota Zoo

Cutting-edge exhibits provide exciting experiences with animals and their habitats introducing guests to species from around the globe. Education programs engage audiences at the Zoo, throughout the region, and around world. Conservation programs protect endangered species and preserve critical ecosystems.

mnzoo.org

Como Zoo & Conservatory

The educational programs provide groups with fun and interactive presentations offsite or at the zoo. Each program uses a variety of sensory aids, including live plants, animals or other fun interactive components to enhance the learning experience.

comozooconservatory.org/education

Bell Museum of Natural History

Through lively tours, classroom offerings, professional development and educational tools developed by University faculty and museum curators, the Bell helps teachers to inspire student interest in Science, Technology, Engineering, and Math (STEM) disciplines.

bellmuseum.umn.edu

Minnesota Academy of Science

The Minnesota Academy of Science is a statewide organization committed to promoting interest in and appreciation of science.

mnmas.org

Sparticl

Sparticl is a new web and mobile service for teens, a collection of the very best the web has to offer in science, technology, engineering, and math or STEM. Sparticl includes answers to science questions, images, videos, games, and hands-on activities, all curated by a team of experts.

sparticl.org

Math Masters

Competition for individuals and teams. The program challenges 5th & 6th grade students to use critical thinking skills and problem-solving abilities in mathematics, while recognizing academic effort and achievement

mathmastersmn.org

Minnesota Destination ImagiNation

Teams of up to seven members solve one of six different Challenges, which they perform in front of appraisers at tournaments. Challenges involve unique hands-on experiences in the sciences, technology, mechanics, engineering, theater, improvisation, goal setting, time and budget management, team building, and leadership.

mndi.org

Minnesota Landscape Arboretum

Tens of thousands of children participate in the Minnesota Landscape Arboretum's hands-on, science-based learning programs each year. Highly organized and packed with activity, Arboretum field trips utilize the gardens, greenhouses and research plots to address science standards in every season. Teachers can also bring the Arboretum to their classroom through the Plantmobile or create their own learning habitat for students to explore.

arboretum.umn.edu

Computer Science & Informational Technology Resources



Advocates for Computer Science/Informational Technology

Computer Science Teachers Association - Gopher State Chapter (MN)

The Computer Science Teachers Association is a membership organization that supports and promotes the teaching of computer science and other computing disciplines. CSTA provides opportunities for K–12 teachers and students to better understand the computing disciplines and to more successfully prepare themselves to teach and learn.

gopherstate-csta.wikispaces.com

Code.org

Code.org is a non-profit dedicated to growing computer programming education. Their vision is that every student in every school has the opportunity to learn how to code. They believe computer science and computer programming should be part of the core curriculum in education, alongside other science, technology, engineering, and mathematics (STEM) courses, such as biology, physics, chemistry and algebra.

code.org

National Center for Women & Information Technology (NCWIT)

The National Center for Women & Information Technology is a non-profit community of more than 575 universities, companies, non-profits, and government organizations nationwide working to increase women's participation in computing and technology.

ncwit.org

Black Girls Code

The Black Girls Code mission: to introduce programming and technology to a new generation of coders, coders who will become builders of technological innovation and of their own futures.

blackgirlscode.com

Girls Who Code

Girls Who Code programs work to inspire, educate, and equip girls with the computing skills to pursue 21st century opportunities.

girlswhocode.com

Hardware Providers

Minnesota Computers for Schools (MCFS)

Minnesota Computers for Schools works collaboratively with schools and educationally focused community organizations to provide technology solutions and skills training to individuals in need. MCFS operates under the principle that all students deserve equal access to the technology necessary to develop the skills, knowledge and confidence required for success in school, the community and the workforce.

mncfs.org/

PCs for People

PCs for People is attempting to improve digital inclusion by eliminating the number of individuals without a computer or access to internet in the home. As a 501 (c)(3) non-profit organization, their mission is to create new opportunities by providing affordable personal computers, computer repairs, internet service, and education to people with limited technological experience due to social, physical, or economic circumstances.

pcsforpeople.com

Tech Dump

Tech Dump, a division of Jobs Foundation, is a 501(c3) nonprofit providing stable jobs to economically disadvantaged adults to obtain marketable job skills as well as a pathway to self-sufficiency. Tech Dump offers quality used desktops and laptops at great prices. Tech Dump refurbishes computers in Minnesota. All of their items are covered by a 30-day money back guarantee.

techdump.org/sales/refurbished-computers-mn/

IT Workforce Initiatives

Minnesota PIPELINE project - *(Private Investment, Public Education, Labor and Industry Experience)*

PIPELINE is designed to move the focus outside of traditional apprenticeship industries to new areas of economic demand and potential growth. The goal is to develop a path for individuals to obtain a degree and career. Plus, allow employers to obtain highly-trained workers in needed areas of advanced manufacturing, agriculture, healthcare services and information technology.
dli.mn.gov/pipeline.asp

MSP TechHire

The mission of a collective of Twin Cities organizations and agencies is to close the workforce skills gap in the high tech economy by building a path for diverse workers to access training, support, and tech jobs across the Twin Cities region.
ci.minneapolis.mn.us/cped/metp/WCMS1P-129028

IT Career Academies

Career Academies are re-imagining education for high school students by improving graduation rates and preparing the next generation to assume key roles in our workforce. Career Academies is a comprehensive method using cross-sector partnerships to prepare students for academic and workplace success and supply future workforce needs of local employers.
gtcuw.org/story/career-academies/

IT Workforce Program Providers

Advance IT Minnesota

Advance IT Minnesota works to increase the size and quality of the Minnesota IT workforce by promoting IT career interest and readiness among secondary students, leading collaborative efforts with employers and educators aimed at improving alignment of student learning outcomes with the needs and expectations of IT employers, and enhancing career success of students and alumni by providing career development opportunities.
advanceitmn.org

Creating IT Futures

As the 501(c)3 philanthropic arm of CompTIA (non-profit trade association of the IT industry), the Creating IT Futures Foundation invents better on-ramps to IT careers for those who are lacking job opportunity. They particularly encourage an IT path for populations that have traditionally have been under-represented in the information technology workforce, such as women and ethnic minorities.
creatingitfutures.org

Genesis 10

Genesis10 helps companies develop their next-generation workforce by recruiting, training and mentoring U.S. military veterans and recent college graduates.

genesis10.com

Maverick Software Consulting

Maverick Software Consulting is a first-of-its-kind program that brings together top computer science students with corporations seeking U.S.-based software development and testing talent.
mavericksoftware.com

Minnesota Computers for Schools (MCFS)

Minnesota Computers for Schools works collaboratively with schools and educationally focused community organizations to provide technology solutions and skills training to individuals in need.
mncfs.org/

Prime Digital Academy

A coding bootcamp with deep connections in the local tech industry. Students learn relevant technologies working on real-world projects.
primeacademy.io

The Software Guild

The Software Guild is an intensive, fast-paced apprenticeship program where students learn to be a software developer.
thesoftwareguild.com

K-12 Computer or Coding Program Providers

BDPA (Black Data Processing Associates)

BDPA (Black Data Processing Associates) is a non-profit organization of professionals working in or having an interest in the Computer Science and Information Technology fields. BDPA provides coding classes to high school students of all ethnicities.

bdpa.org

Code Savvy

Code Savvy is a not-for-profit organization inspiring kids and teens to become code-savvy, that is, to understand the kind of creative thinking that goes into coding, and to try out programming computers and devices. Code Savvy is determined to bring more diversity -- gender and ethnic diversity -- to computer science.

codesavvy.org

CoderDojo Twin Cities

CoderDojo is a global movement about providing free and open learning to youth, with an emphasis on computer programming. The Twin Cities chapter was founded to bring this movement to the Minneapolis-Saint Paul area, inspire other chapters, and partner with other organizations to better introduce kids to coding.

coderdojotc.org

Digital Empowerment Academy

The Digital Empowerment Academy is a digital literacy initiative in Minneapolis that works to enable youth to become savvy creators of digital content.

digitalempowermentacademy.org

Mouse

Through a web-based learning platform, students use Mouse projects and lessons to expand their knowledge of exciting technologies like circuitry, game design, and green energy. The curriculum teaches students essential 21st-century skills and allows educators to determine what knowledge and skills they want their students to focus on and learn throughout the school-year.

mouse.org/mouse-minnesota

Rêve Academy

Rêve Academy, is an innovative out-of-school program focused on providing a pathway to careers in digital marketing. The program couples immersive curriculum with relevant experience to create marketable talent. It is founded on the belief that kids can lead us into the future.

reveacademy.org

SPARCS for young women in IT

SPARCS is designed to help female high school students increase awareness and understanding of information technology (IT) career opportunities through exploring different types of technology tools and applications and build technology skills. The students are supported by women technology professionals, build relationships with other young women who have similar and diverse technology interests and consider higher education options and prepare for college entrance.

advanceitmn.org/sparcs-for-young-women-in-it

Technovation[MN]

Technovation[MN] wants to inspire and enable Minnesota teen girls to dream up, design, code and pitch mobile phone apps. Technovation[MN] hosts the MN Technovation Challenge, several Apps Days, and MN Appapalooza event.

technovationmn.org