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### A Partial List of Online and Community STEM Resources

MINNDEPENDENT does not endorse or recommend any organization, product, or professional association. Contact Beth Murphy, MINNDEPENDENT STEM Program Manager, at [bmurphy@misf.org](mailto:bmurphy@misf.org) with suggested additions.

In addition to her work with MINNDEPENDENT, Beth also works directly with schools and nonprofits as a consultant to guide planning and implementation of exceptional STEM learning experiences. Visit [Beth Murphy Consulting](#) to learn more or contact Beth at [bethmurphyconsulting@gmail.com](mailto:bethmurphyconsulting@gmail.com) to schedule a free consultation for your school.

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#### **Academic Standards & Related Resources**

[Getting Ready for the New Minnesota Science Standards online course](#) (use code MISF75 for a discounted price)

[A Framework for K-12 Science Education](#)

[The Next Generation Science Standards](#)

[Science & Engineering Practices in K-12 Classrooms](#)

[Matrix of Crosscutting Concepts in NGSS](#)

[MN Academic Standards for Science](#)

[MN Academic Standards for Mathematics](#)

[Minnesota STEM Teacher Center](#)

[ITEEA Standards for Technological and Engineering Literacy](#)

[Framework for 21st Century Learning](#)

#### **Colleges & Universities**

Bethel University: [STEM in K-12 Education Certificate](#)

Hamline University: [Center for Global Environmental Education \(CGEE\)](#)

St. Catherine University: [National Center for STEM Elementary Education](#)

University of Minnesota:

[BrainU: The Neuroscience Teacher Institute](#)

[Monarch Lab](#)

[STEM Center](#) and [STEM Center resources](#)

University of St. Thomas:

[Center for Engineering Education \(CEE\)](#)

[Playful Learning Lab](#)

#### **Museums & Education Providers**

[The Bakken Museum](#): inspiring a passion for innovation to make the world a better place

[Bell Museum](#): Minnesota's natural history museum with a mission to ignite curiosity and wonder, explore our connections to nature and the universe, and create a better future for our evolving world

[Climate Generation: A Will Steger Legacy](#): empowering individuals and their communities to engage in solutions to climate change

[Code Savvy](#): striving to make kids and teens more code-savvy through creative educational programs and services

[Curious Minds](#): providing STEAM education programs for ages 18 months to 12 years

[High Tech Kids](#): nonprofit that supports Minnesota *FIRST*® LEGO® League Junior, *FIRST*® LEGO® League, and *FIRST*® Tech Challenge programs

[Minnesota Zoo](#): Created by the State of MN, the Minnesota Zoo has a mission to connect people, animals, and the natural world to save wildlife

[Science from Scientists](#): providing exciting, informative and engaging programming by practicing scientists

[Science Museum of Minnesota](#): hands-on exhibits, dinosaurs, Omnitheater as well as field trips, outreach programs, and teacher professional development

[Science Museum of Minnesota Lending Library/Teacher Resource Center](#): membership-based teacher resource to borrow instructional, hands-on STEM materials

[World Savvy](#): educating and engaging youth to learn, work, and thrive as responsible global citizens

[The Works Museum](#): hands-on children's museum that focuses on technology and engineering

#### **Professional Associations**

[Minnesota Council of Teachers of Mathematics](#)

[Minnesota Science Teachers Association](#)

[Minnesota Technology & Engineering Educators Association](#)

[SciMathMN](#)

## **Learning Communities**

**MISF STEM Learning Community:** A collaboration tool created by MISF to provide STEM educators with the opportunity to collaborate and learn from each other to advance STEM teaching and learning

## **Additional Resources**

**American Association of Chemistry Teachers:** classroom resources for grades K-12

### **National Chemistry Week**

**Edutopia:** resources for teachers including project-based learning and integrated studies

**Engineering byDesign™ Program,** e.g. EbD, developed by the International Technology and Engineering Educators Association (ITEEA)

**Engineering is Elementary:** developed by the Museum of Science, Boston

**Engineer's Playground:** information, products and services about engineering and STEM for schools and parents

**Full Option Science System (FOSS)®:** K-8 science curriculum from the Lawrence Hall of Science, University of California, Berkeley

**getSTEM of Minnesota,** a web portal designed to connect Minnesota educators with science and technology businesses

**Great Explorations in Math and Science (GEMS):** from the Lawrence Hall of Science, University of California, Berkeley

**KidWind:** clean energy curriculum and classroom materials

**LASER Classroom™:** K-12 tools and resources to teach about light, lasers and optics

**Maker Education:** whose mission is to create more opportunities for young people to build confidence, foster creativity, and spark interest in STEM and the arts

**Minnesota Department of Natural Resources:** providing natural resources education

**National Center for Technological Literacy:** programs and resources to raise awareness and understanding of engineering

**Science and Technology Concepts Program™(STC):** inquiry-based science curriculum for K–10 covering life, earth and physical sciences with technology. Developed by the Smithsonian Science Education Center

**Science Companion:** curriculum for teachers, by teachers

**SciGirls:** evidence-based practices in STEM education for girls

**Sparticl:** a science web and mobile device information service for teens

**TeachEngineering:** digital library of standards-based engineering content for K-12

**TryEngineering:** engineering resource for students, parents, teachers & school counselors

**Teachers TryScience:** a collaborative effort between the New York Hall of Science, IBM Corporation and teachengineering.org to provide STEM Lessons/resources for educators, including teacher-contributed lessons

**Vernier:** company that provides sensors, software and curriculum to teach science and collect and interpret data

