MSEF
Massachusetts Science + Engineering Fair

Why Science Fair?

Science fair provides schools a platform to execute on STEM learning objectives.

Students engage in an independent research project about something they are curious about. This project identifies a testable question or problem to solve, gathers and distills data, and ultimately reports out on what the student has learned at a showcase or competition.

Successful science fair programs aren't just about winning awards, they're about supporting students to be prepared for their academic or career pursuits.

Building Curiosity

Students practice **generating questions and defining problems.** Building on initial ideas to identify necessary methods, materials, and an achievable scope of work can **make a simple project extraordinary.**

Practicing Skills

Students practice the foundational skills of:
asking questions & defining problems;
planning & carrying out investigations;
and **analyzing & interpreting data.**

Growing Social Capital

Students expand their network:

- They **make friends** with others interested in STEM
- They can **be recognized and celebrated** with prizes, awards, and scholarships
- They are **'seen' by STEM professionals** who encourage them and discuss their ideas

Context to Classroom Learning

Students identify a topic that is relevant to them or their community, apply concepts and practices from their curriculum to real world scenarios, and envision a career in STEM. Projects can cover **science research**, **engineering design**, **computer science**, or **mathematics.**

All students are welcome at MSEF.

Did you know?
71% of participating students represent public schools
21 out of 26 Gateway Cities represented

Learn more:
www.scifair.com
info@scifair.com

Massachusetts Science & Engineering Fair (MSEF) gives students authentic experience in science and engineering, while building confidence, curiosity, and connections to real-world STEM pathways.

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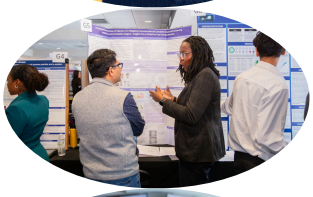
What can Science Fair look like in my school?

Science Fair programming comes in all shapes and sizes.

In some schools it is **required for a course** and for others it's an **afterschool club**. At some schools **students work independently,** in others teachers provide greater guidance and oversight.

Science Fair can align with **OpenSciEd** alongside the curriculum, or as an extension in other courses. Students benefit from continued use of tools like driving question boards and notebooking.



Science Fair can be used as a **capstone project** connected to **Project Lead the Way,** through an **Innovation Pathway**, or as **Portrait of a Graduate**. Science Fair meets goals of collaboration, communication, and resilience.

Science Fair can be implemented as part of a class, across one grade band, or as a focused Research Methods elective. It can also align with **Honors** classes and some **AP** courses.

> *Regardless of the exact curriculum that's used, **true inquiry** is the gold standard in science education. **Science fair projects are the closest we get to true inquiry**.*
>
> *-Participating STE Supervisor*

Support for teachers and students

- Connections to STEM professionals (mentors & coaches) for students
- Teaching and learning resources
- Training and ongoing consultations for teachers
- Educator community

No cost programming + financial support

- MSEF events and resources are free
- Projects do not need sophisticated equipment to be successful
- Project supplies are available for select schools

Timeline and Pathway

- Programs run from 12 weeks to 5 months based on school priorities and schedules
- Students can participate at the school level or go directly to regional or state
- Fairs run from March - May by division

> *At first, I was hesitant—science fair felt overwhelming. **But connecting with MSEF showed me I can access a whole community of support for teachers and students.** It transformed how I teach and made the experience deeply meaningful for me and my students.*
>
> *-Participating Teacher*

Questions for MSEF? Want to connect with teachers who implement science fair?
Email info@scifair.com or call 617-491-1500 x705