STEM Education Works®

STEM BEYOND THE BELL

A LEADER'S GUIDE TO BUILDING IMPACTFUL STEM PROGRAMMING FOR OUT-OF-SCHOOL ORGANIZATIONS

STEM has become increasingly important to prepare the next generation for success, yet many students have limited opportunities to explore STEM through hands-on learning. Schools often lack the time and funding to provide these experiences. Out-of-school programming provides opportunities for students to explore STEM, discovering new interests and developing technical skills along the way. Parents recognize the value of these experiences as well. **72% of parents prioritize STEM and computer science learning opportunities when choosing a program,** highlighting the growing demand for STEM enrichment.

For many students, an after-school program, summer camp, library, or community organization may be their first opportunity to explore robotics, coding, or engineering. These programs are crucial for increasing equity in STEM and encouraging traditionally underrepresented groups to pursue STEM. By creating a welcoming, hands-on learning environment, out-of-school programs can inspire these students and encourage them to continue exploring their interests.

> "It was just a reminder of how instrumental libraries are in bringing technology into a community where maybe not everyone has the resources to access those, even the schools, even the local schools."
>
> —Amy-Jane McWilliam, Executive Director of the Southwest Florida Library Network

STEM programming prepares students for the future by exposing students to advanced technology and building critical thinking and problem-solving skills. STEM also helps supplement what students are already learning in schools, improving math and science competency across multiple grades. With an out-of-school program, students get the freedom to experiment without worrying about being graded. That flexibility helps make STEM more approachable and enjoyable while reinforcing what students are already learning in school.

HOW TO ADD STEM TO YOUR PROGRAM

STEM programming provides young learners with enriching learning experiences where they can express their curiosity and creativity while building future-ready skills. To get started implementing STEM into your program, implement age-appropriate technology, flexible curriculum, and beginner-friendly training for program leaders.

Technology is foundational to STEM learning, and it's crucial that kids of all ages are able to explore technology. The most successful STEM programs use versatile technology that engages young learners while continuing to challenge

older students as their skills develop. This scalable approach helps your program serve a wide range of ages and experience levels without needing different tools for every group.

Flexible, standards-aligned curriculum and activities ensure that students are learning while giving them the freedom to explore and experiment. Whether students participate in a single activity or a year-long program, engaging lessons provide structure while building critical thinking and problem-solving skills.

You don't need to be a STEM expert to introduce STEM programming. Successful STEM programs include technology and curriculum designed with beginners in mind, so educators, program leaders, and volunteers can quickly build confidence. Providing introductory training and access to reliable support helps keep programs running smoothly. When staff feel supported, they can focus on creating meaningful learning experiences that inspire students.

Creating enriching STEM learning experiences outside of the classroom can help increase equitable access to STEM, build valuable skills, and keep students engaged. Whether your program is an afterschool program, a summer camp, or activity day for a local library/museum, combining beginner-friendly tools with flexible curriculum and continuous support ensures that your program will be a success.

At STEM Education Works, we help out-of-school programs provide opportunities for students to interact with STEM. We provide scalable technology, flexible curriculum and activities, and beginner-friendly training to deliver enriching learning experiences to help students build crucial skills needed to succeed in school and the future workforce. Parents value STEM, and students stay engaged when they have the opportunity to explore and express their creativity while learning.