STEM Education Works®

THE ADMINISTRATOR'S GUIDE TO STEM IMPLEMENTATION

CHOOSING THE RIGHT PARTNER, TOOLS, AND CURRICULUM FOR DISTRICT-WIDE SUCCESS

STEM education has become increasingly important for preparing students for the future, but implementing STEM in your school district can be intimidating and expensive. STEM education is an opportunity to develop workforce-ready skills while strengthening academic performance.

Student math and science performance remains a growing concern for school leaders. **According to the National Assessment Governing Board, less than 31% of 8th graders were proficient or better at math, and 45% of 12th graders scored below basic.** As districts look for ways to strengthen student learning, STEM education provides opportunities for students to apply math and science concepts through hands-on problem-solving. Coding, robotics, and other STEM activities can help students see how these concepts connect to the real world.

However, purchasing new technology alone is not enough to solve this problem. For school leaders, the challenge is not simply investing in STEM, but building a sustainable program that supports educators and creates real-world learning opportunities for every student.

HOW TO IMPLEMENT A DISTRICT-WIDE PROGRAM

No school district wants to waste money purchasing expensive STEM tools and resources that teachers don't understand, and students won't enjoy. Schools need a clear strategy that combines versatile technology, standards-aligned curriculum, and supportive educator training to create a long-lasting STEM program that prepares students for the future. There are several ways to implement STEM to fit your goals and budget, but here are three options to bring STEM to students and educators in your district.

> "If we want our students to see their future, the possibility of careers, it should not be a one-time thing. I think that they should start learning in elementary, seeing where their interests are … And just keep building on it at every grade level, so that by the time they get to high school, they're very confident in what they're doing."
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> - LaChandra Cobb-Eaglin, Beaumont ISD STEM Coordinator

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Many districts begin by integrating STEM into existing classes, like math, science, and other subjects. Rather than creating entirely new classes, educators can use STEM activities to reinforce what students are already learning by connecting it to real-world challenges. This approach makes STEM accessible without requiring major schedule or curriculum changes.

As interest and participation grow, your district can expand into a shared STEM classroom or lab. These spaces can be in a library or computer lab shared across multiple schools and grade levels, giving all students the opportunity to engage with robotics, coding, 3D printing, and other STEM technologies. Combined with standards-aligned curriculum, these learning experiences help students develop critical thinking and problem-solving skills.

For districts ready to take the next step, a scaffolded STEM learning pathway creates a cohesive learning experience from elementary through high school. By aligning technology and curriculum across grade levels, students build confidence working with technology and develop workforce-ready skills over time as they progress through school. This scalable approach provides educators the curriculum, technology, and support needed to sustain long-term success.

At STEM Education Works, we partner with districts to build sustainable STEM programs that support educators and provide hands-on learning experiences for students. Whether you're implementing STEM into existing classrooms, creating a shared STEM space, or building a scaffolded K-12 STEM pathway, we provide versatile technology, standards-aligned curriculum, and ongoing educator support. From implementation guidance to professional development and technical support, we help districts deliver engaging, hands-on STEM learning that prepares students for future careers.