STEM Is Not What You Think—And That's the Problem

When people hear "STEM," they often think of complex equations, intimidating technology, or coding boot camps designed for a select few. Some picture children building robots with expensive kits, while others believe STEM is only for the "gifted and talented." But STEM is not just about coding or putting together Legos—it is about creativity, problem-solving, and opportunities that should be available to every child, regardless of their ZIP code.

In New Jersey, we pride ourselves on being a hub of innovation, home to top research institutions and cutting-edge technology companies. Yet, despite this, many students in underserved communities lack even the most basic access to quality STEM education. While some schools have robotics labs and state-of-the-art engineering programs, others struggle to provide working computers or updated science textbooks. This disparity isn't just about resources—it's about who gets to imagine themselves in STEM careers and who doesn't.

One of the biggest barriers to expanding STEM education is perception. Too often, STEM is seen as intimidating, something only the "smartest kids" can pursue. But in reality, STEM is about curiosity, persistence, and creative problem-solving—skills that every child can develop. It is not about memorizing formulas but about exploring real-world challenges. Whether it's a student designing a solution for cleaner water in their community or a child using technology to tell a story, STEM is broad, dynamic, and inclusive.

Expanding access to STEM education means broadening our definition of what STEM can be and ensuring that all students see the possibilities within it.

Unfortunately, not all students in New Jersey have an equal chance to engage in STEM. In more affluent areas, children may be exposed to advanced STEM concepts from an early age, encouraged by well-funded programs and extracurricular activities. Meanwhile, students in lower-income districts may not even know these opportunities exist. This gap reinforces the cycle of exclusion, where only those with privilege get to become the engineers, scientists, and innovators of the future.

We need to address these systemic inequalities by investing in STEM education for all students to thrive. This means funding after-school programs in underserved communities, providing hands-on learning experiences that go beyond textbooks, and ensuring that teachers have the resources and training they need to implement STEM in their classroom.

To truly make a difference, we must move away from the idea that STEM is just about coding or robotics. Yes, those are important, but STEM is also about solving everyday problems, sparking creativity, and making connections between subjects. When students

realize that STEM is not just about sitting in front of a computer but about designing solutions for the world around them, they become more engaged and excited.

We must also highlight diverse role models in STEM. Representation matters. When students see people who look like them thriving in these fields, they begin to believe they can, too. That's why programs that connect students with STEM professionals from various backgrounds are so critical.

For NJ STEM Month, let's challenge the outdated ideas of what STEM is and who it is for. Let's create opportunities that inspire students in every community, not just those with the resources to afford it. Policymakers, educators, and industry leaders must work together to level the playing field and invest in equitable STEM education.

STEM isn't just for a privileged few—it's for everyone.

Takeerah Jones is the founder of Busy Bees, a STEM education company dedicated to providing hands-on learning experiences to underserved communities and neurodivergent students.