

**Mrs. Lisa Longino**

Physical Education Specialist,
Lead Teacher of Athletics and
Attendance

East Cleveland City School
District (ECCSD), OH

Rolling STEM Into Physical Education

PE enhanced with STEM promotes outstanding student benefits

A fierce advocate for student health and wellness, Mrs. Lisa Longino began her journey in education in 1994. Over three decades later, she continues championing innovation in student learning, physical fitness, and academic engagement. Now serving as the Physical Education Specialist and Lead Teacher of Athletics and Attendance in East Cleveland City School District (ECCSD), Lisa has become a transformational leader in a district with no official physical education or health curriculum.

Through her groundbreaking initiative, STEM in the Neuronasium, Lisa has creatively bridged the gap, integrating STEM Sports® into K–6 PE lessons and making the gymnasium a powerful extension of the classroom.

THE CHALLENGE

In a district without a standardized PE or health curriculum, Lisa faced the daunting task of building a program from scratch, one that would not only get students moving but also elevate their academic and social outcomes.

While many see PE as just playtime, Lisa has a different philosophy: every session should be a meaningful learning opportunity that supports the whole child physically, academically, and emotionally. However, without district-wide guidance, resources, or a formal structure, the challenge was real. How could she spark change and ensure that PE wasn't just active, but academically rich and culturally relevant?

THE SOLUTION

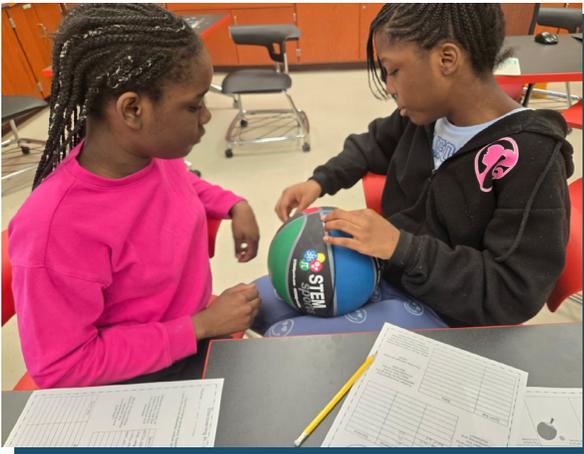
Lisa had always understood the deep connection between sports and science. One day in 2021, while researching ways to reinforce STEM in physical education, she discovered STEM Sports®.

"I was particularly drawn to STEM Tennis, which allowed me to introduce students to various types of courts and sports balls, while also teaching angles, motion, and critical thinking," she said. "The curriculum is innovative, interdisciplinary, and drives both academic achievement and student wellness, especially in marginalized communities."

Through hands-on activities and sports-based STEM lessons, students at ECCSD now explore real-world concepts like velocity, force, trajectory, and physiology,



all while being physically active. Lisa often connects these lessons to relatable role models, like LeBron James and Stephen Curry, to show how math and science power elite athletic performance. “It makes the learning real—and fun,” she added.



THE IMPACT

The results have been profound.

Lisa reports significant improvements in math scores, reading comprehension, attendance, and student engagement. Just as critically, she’s seen a decrease in behavioral issues. “Truancy has decreased because kids want to come to school to learn about velocity using a radar gun or how their heart rate changes during activity. They’re curious and excited,” Lisa shared.

Teachers across ECCSD have taken notice. Students often arrive to class ready to apply what they’ve learned in PE to science and math discussions. “They’re proud to share knowledge they gained in the gym, and it’s cross-curricular, it sticks.”

Beyond academic growth, Lisa sees students expanding their aspirations. “They understand that success in sports doesn’t just mean being an athlete.

They now know what a statistician is, what it means to be a sports scientist, a team trainer, or a physician. These careers feel real to them.”

THE RECOMMENDATION

Lisa urges other educators, especially in underserved districts—to look at PE differently. “Try STEM Sports®. Try something new. The results will surprise you.”

She explains that while many expected her students to gravitate toward basketball or football, the biggest surprises came from STEM Golf and STEM Tennis. “The ecology lessons in golf and the force activities in tennis fascinated them. Most of my students had never even seen these sports before. That unfamiliarity created a level playing field and a sense of belonging.” Her students were so inspired that they proposed transforming their nearby baseball and soccer field into a student-designed First Tee golf course. “They took ownership of their learning and environment. That’s the kind of empowerment that lasts.”

Lisa also proudly points to the rise in female participation. “Girls who had never thrown a football before learned through STEM Football and now they want to play on our Flag Football team. That team didn’t exist before. **Now, they’re leading the charge.**”

In a district with no formal PE or health curriculum, Lisa Longino has proven that innovation, passion, and vision can reshape what physical education looks like and what it can accomplish with the support of her CEO/Superintendent, Dr. Henry Pettiegrew II.

“Combining STEM with sports created the perfect cocktail for success,” she said.

In East Cleveland City School District, that success shows up in higher achievement, stronger engagement, and students who are more confident academically, socially, and physically.