FULL STEAM AHEAD AT FORT MILL SCHOOLS

High-achieving South Carolina district adds a new curriculum focus to boost student — and teacher — engagement.

"We're a growing district, and we needed something that could bring everyone to the table."

FORT MILL SCHOOLS
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Sometimes being on top isn't enough.

In 2017, Fort Mill School District in South Carolina became the top-rated district in the state, garnering national acclaim for its students' academic achievements, and being named to The College Board's AP District Honor Roll. But the district's leaders knew they could reach even greater heights. The challenge was – how can they get there?

When it underwent its AdvancED accreditation in 2017, the district had every right to expect great results. So when officials got the accreditation report back, they were surprised to find one small note of discord: Student engagement, while satisfactory, was lower than administrators wanted.

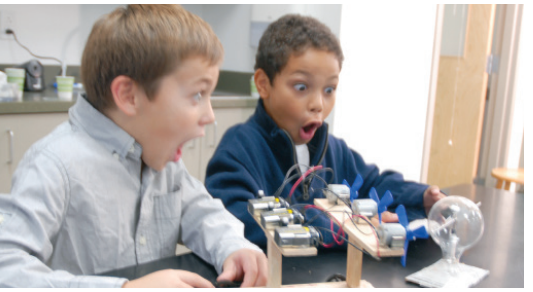
"It was not where we wanted to be as compared to our normally high achievement results," says Marty McGinn, the district's assistant superintendent of curriculum and human resources.

At the time, district officials were in the process of reexamining their curriculum, mostly to make sure students were college and career ready according to the state's Profile of the Graduate.

When officials considered the engagement of their students, as well as the recognition that various schools were offering different STEM activities, only one choice addressed all these issues. The choice—to increase offerings in STEAM topics—was quickly agreed upon. STEAM refers to the basic STEM topics, science, technology, engineering, and math, with the arts included.

But even administrators couldn't have guessed how well the changes would be accepted both inside and outside their classrooms. In just the first year of the district's shift in focus, the effort has been well received by students, the school board, and especially teachers.

"We had a lot of STEAM activities going on here and there," says McGinn of the district's 16 schools. "But we're a growing district, and we needed something that could bring everyone to the table."



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Building STEAM

After mapping where district leaders knew they needed to be, they had to decide how to get there, which meant weighing the options for programs to implement and who could help them through this transition. In April 2017, the leaders hosted a strategic planning session.

To provide some guidance, Fort Mill's leaders invited Cindy Moss, vice president of global STEM initiatives at Discovery Education, to speak with school and district leaders, along with students. Moss envisioned a classroom ecosystem where all teachers and students were immersed in STEM.

"Schools need to provide experiences that allow students to become 'glocal,'" said Moss. "They should walk outside their school to find local problems and be able to see how their local problems fit into the global scheme of things. Adults should stop just dispensing knowledge and allow students to solve real-world problems."

Chad Allen, the district's STEM coordinator, said Moss' passion filled the room with energy. It became the ignition for their STEAM engine.

"After she spoke, our students said, 'We need our teachers to teach like that,'" said Allen. "We did not expect that strong of a reaction from our students, but they were immediately engaged."

Managing Rapid Growth

Fort Mill's move to emphasize STEAM topics districtwide was initially complicated by the district's tremendous growth. In just 15 years, the district, located in a town of 50 square miles, has grown from fewer than 6,000 students to more than 15,000. In that time, two new high schools were opened, and the district hired new teachers to compensate for the growth in student population.

Despite this growth spurt, these sudden changes haven't had a negative impact on student achievement. Fort Mill remains the top-performing district in South Carolina, with a graduation rate of 94 percent—12 percentage points higher than the state average. Also, 85 percent of its graduates went on to a two- or four-year college, well above the state's average rate of 71 percent.

But these changes did emphasize for district leaders the need for a unified curriculum, said McGinn. Redistricting has shuffled both students and teachers to different schools, so streamlining the curriculum made it easier for both groups to change addresses without losing ground.

"Our superintendent continues to say, 'It doesn't matter which school you go to in Fort Mill—they are all equally excellent,'" said McGinn.

"Discovery Education's people have been right alongside us every step of the way."

Seeing STEAM in Action

In order to better formulate their goals, Fort Mill officials visited Santa Rosa County District Schools in Florida to see how it integrates STEAM activities into its everyday education.

In recent years, Santa Rosa has emerged as an international leader in STEAM education. Its students have continued to show promise after embarking in 2015 on a five-year strategic partnership with Discovery Education called STEAM Innovate!, where educators receive intensive professional learning and job-embedded coaching. Santa Rosa's classrooms have become STEAM-infused learning environments, with lessons that nurture student achievement and critical 21st-century learning skills.

"We were struck by the common language and the common vision," McGinn says. "Everybody moves in the same direction, from the district office to the classroom. It inspired us."

Now, Fort Mill was moving with purpose toward a STEAM model, but still had some hills to climb. Leaders knew that they would need a strong professional development basis from which to launch into STEAM, but the district's central office is slim.

"We believe in funding our schools, but we simply don't have the capacity to do something like districtwide PD all by ourselves. So we had to find a great solution," said Allen.

Building a Corps of Teacher Leaders

Fort Mill partnered with Discovery Education's STEAM Leader Corps, a comprehensive program that helps scale digital and instructional leadership in school districts. Schools in Fort Mill were already using the company's Science Techbook digital textbook, and it plans to expand into Discovery Education STEM Connect in the future.

The district's partnership with Discovery Education has been powerful and unique, said Allen, adding that it was unlike any of his previous experiences with education service providers.

"Discovery Education's people have been right alongside us every step of the way. They've invested themselves in the community, they talk to parents at PTO meetings, and they're involved in planning and designing posters—it's almost like they work for the district," said Allen.

Through the Leader Corps, Fort Mill's educators are being prepared for effective STEAM instruction and establishing a team of teacher leaders that will help drive systemwide change.

"Having a clear professional development structure for implementing STEAM is important to focus our efforts to achieve our goals," said McGinn. "It also fosters communication and collaboration within and between our schools."



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Initially, the district sought volunteers to start, asking for eight teachers at its high schools and four at each middle and elementary school. McGinn wasn't sure that many teachers would be interested, But the opposite proved true. More teachers applied than they could immediately use. While those not chosen were disappointed, the district has included them on trips to conferences and other schools to see STEAM activities in person to prime them for the future.

The training took a strategic approach, beginning with principals, says McGinn.

"Principal leadership is so vital. If the administration doesn't understand what teachers need, such as time for planning and collaborating, it's hard to support them," she said.

Now, one year into the four-year STEAM Leader Corps program, teachers are beginning to showcase the effects of their training, said Allen.

He can tell teachers are embracing the new methods when he hears them discussing STEAM concepts in side conversations in the hallways. They're also active on their own Twitter hashtag, #FM21STEAM where they regularly share their accomplishments.

"Some of those who came out of this process surprised us, and they're surprising themselves," he said. "These teachers are starting to demonstrate their skills as leaders. They're stepping up and responding to the extra autonomy they're being given."

These teachers will lead model classrooms for others, organically growing the STEAM initiative internally throughout the district. And more leaders are being added each year.

"We still have a lot of work to do, but it's exciting work," McGinn said.

Teachers are learning how to create project-based learning lessons that meet the district's standards, she says. Once teachers immerse themselves in using units from STEM Connect, they will better understand how to create their own interactive units.

What STEAM Looks Like in Fort Mill

In classrooms throughout the district, a combination of project-based learning and student-centered teaching can be seen in full practice. In place of stand-and-deliver instruction, students are empowered to be at the core of their classrooms, leading their own explorations in learning.



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"We've seen the level of student engagement increase in our schools. They're doing more rigorous work, and there is more creativity on display," said Allen.

"We had 400 people show up for one of our student-led district art shows recently. That was huge for them."

Also emerging are STEAM-based lessons grounded in real-world issues. Springfield Middle School students embarked on a service-based learning exercise recently while studying what life is like for those living in refugee camps. To provide context for the lesson, they left the classroom behind and went outdoors.

They crossed a river, and using the limited materials they'd carried with them, built their own tents and spent some time in the wilderness.

They experienced a small taste of the life of those without homes of their own. Beyond the hands-on learning experience, it's an exercise in communicating the power of compassion, said Allen.

"The definition of caring comes from understanding someone else's perspective. When you design solutions, you're trying to think of how people will experience that," said Allen. "I think giving kids a firsthand account of life experiences really helps them understand what it is they're learning."

Another major shift is on the teacher's side of things. They're encouraged to experiment with new ideas in the classroom and not be afraid of failure.

"If something goes bad, or fails, it's okay. We're giving them the freedom to explore. It's allowed us to open our minds and be more intuitive about how we teach our kids," said Allen.