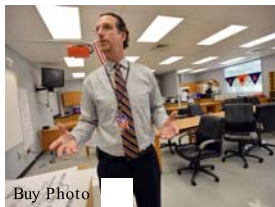


2 New Tech high schools to open in Greenville



Ron Barnett, The Greenville News 6:37 a.m. EDT August 14, 2014

The concept of teachers imparting knowledge on students who passively soak up information from their desks is on its way out at Carolina and J.L. Mann high schools.



(Photo: MYKAL McELDOWNEY, Staff)

The high school of the future is here.

George Jetson won't be dropping his daughter Judy off in a flying bubble capsule, but the New Tech high school programs starting up this month in Greenville County promise to rocket the old educational model straight into the 21st century.

The concept of teachers imparting knowledge on students who passively soak up information from their desks is on its way out at Carolina and J.L. Mann high schools.

All the incoming freshmen at Carolina and 150 ninth and 10th graders at Mann will be in classes where students form small groups to work on real-world projects.

The walls have come down, literally, between subjects such as Algebra II and chemistry, math and engineering. Where there were two classrooms, now there will be one big classroom with two teachers, and students will be learning both subjects at the same time through their projects.

Down the hall, small groups of students will be working on projects in a big room behind a glass wall, with limited supervision.

There are no textbooks in this picture. Students have high-end laptops that give them everything they need in terms of instructional materials.

If this looks more like a business office or technical workplace than a school, that's the idea — to prepare students for the jobs of the future.

"I think part of the reason why we're seeing this initiative is that not only is it based on good educational practices and I think students see the connections to the real world, but it's also something that enables us to support the workforce," said Chris Burras, who oversees STEM programs for Greenville County Schools.



Michael Delaney, principal at Carolina High School, talks about how the new classroom approach will help kids prepare for the real world. MYKAL McELDOWNEY/Staff

District-wide emphasis

Actually, project learning isn't entirely new in the district. Students at A.J. Whittenberg Elementary School of Engineering have been learning that way since the school's inception in 2009, as have students at Monarch Elementary.

And with the first graduates of Whittenberg ready to head to middle school, the district has a new project-based STEAM school (adding arts to the science, technology, engineering and math components), ready for the start of the school year Tuesday. Students from Whittenberg got preference in the lottery for seats.

The new Fisher Middle School isn't the only middle school that will have a new project-learning component. Sevier Middle and Hughes Academy also will have new STEAM programs this year, according to Burras.

Middle school teachers from seven schools trained over the summer through a program led by Clemson University and funded by Bosch to begin what district officials say eventually will be a district-wide emphasis on project-based learning.

Not all of the new project-learning programs will be based on STEM or STEAM, though. The concept can be adapted to other disciplines as well, with schools being encouraged to develop relationships with community and business leaders to find real-world projects that incorporate all subjects, Burras said.

"This is just getting off the ground with both our nation and our own economy looking at those careers and workplace needs that are associated with STEM and STEAM," she said. "That is why we're moving in that direction at this time, but we're not going to be bound by that.

"It's going to be the look of education in the 21st century."

New Tech high schools

The transformation on the high school level is beginning this year at Carolina and J.L. Mann, with each school using a different approach.

At Mann, the New Tech program will operate as a school within a school.

The school, which expects to have 1,750 students this year and grow to about 2,000 with the addition of a new wing in 2017, will start New Tech with 150 students — about 100 freshman and 50 sophomores, said Principal Charlie Mayfield.

Another 150 students will be added each year until the program reaches an enrollment of 600.

Mann already has a magnet program in math, science and technology, but the New Tech program will be different in that the magnet program is based on the teacher-centered philosophy, while New Tech is based on projects, he said.

New Tech is a network of schools using this approach, and Mayfield has visited some of the others in California, Texas, Indiana and North Carolina.

"It is really exciting to see how kids are excited about their learning," he said. "They're taking ownership of it."

Mayfield hopes to arrange for seniors and some juniors to earn dual credit, possibly through Greenville Technical College.

Through the project-based process, students will learn not only the subject matter they'll need for college and careers but also the "soft skills," such as learning to work with others, and making public presentations of their projects, Mayfield said.

At Carolina High, the whole school will be transformed, one grade at a time, into the project-based environment, according to Principal Michael Delaney.

All ninth-graders this year will be in the New Tech program. Walls have been knocked down between classrooms in one wing of the school, and a space has been converted into a project room for students to use on a semi-independent basis.

"Students are pretty much running the show," Delaney said.

It might seem like a difficult transition ahead for a school that traditionally has had some of the lowest academic achievement levels and the highest dropout rate in the district.

But those metrics already have been changing over the past few years. Enrollment is rising, with many of the students who live in the assigned area who have been transferring to other schools under the district's choice program, opting to stay at Carolina, Delaney said.

Four years ago, the graduation rate was 48.8 percent. It's projected to hit 71.9 percent this year, he said. "Our goal is to get 100 percent."

The project-learning model, he believes, will give kids even more reason to stay in school.

"Traditionally, students struggle because they get bored," he said. "This puts the learning back in the students' hands."

They'll be able to see how what they're learning is useful, rather than abstract, and how they may find their place in the world of work, he said.

All 18 ninth-grade teachers have been trained, and they'll be involved in more collaborative work themselves, he said. A special room is set up where all the teachers have a desk and can work together on ideas to help students.

Students will be involved in recruiting businesses to get involved in their projects, and their project presentations will be graded by groups of teachers, school administrators, business leaders and even community members and parents, Delaney said.

Recognizing that in the real world all projects don't succeed yet still provide valuable information, the grades won't be based on whether the student design works.

"The outcome's not as important as the learning process," Delaney said. "The project can be a disaster, but you can learn everything you needed to learn along the way.

"And that's the key. The key is that individual growth."

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