At Exploration Station — the preschool at Miami Dade College's north campus — students apply their science lessons in the school's garden, just one aspect of their future-focused education. Here, Allan Stuart shows off a carrot freshly plucked from the school's garden. Page 8
At the preschool at Miami Dade College’s North Campus, students ages 1 to 5 focus on science, technology, engineering and math to prepare them for the future.

BY MARIA CAMILA BERNAL
mbernal@miamiherald.com

About ten preschool students spent their morning picking carrots and lettuce from a garden. While some washed and organized the vegetables, a couple wandered off to find worms.

The garden is not just a pastime, the students know how to identify vegetables such as bok choy or Swiss chard, they measure the plants and they learn to understand the science behind it.

Exploration Station, the preschool at Miami Dade College’s North Campus, is the only preschool on the East Coast that has implemented a STEM focus (Science, Technology, Engineering and Math) in their curriculum.

The preschool was founded in 1973 but only initiated its STEM focus at the end of last year, thanks to Susan Neimand, director of the school of education. Her background as a science teacher helped her lean toward a STEM curriculum. She believes that science is a basic skill and that everything else can be taught based on that.

"STEM is at the heart of everything we do," Neimand said. "We have not excluded — all we have done is highlight the STEM, but we do everything else."

Walter G. Secada, senior associate dean at the School of Education at the University of Miami, agrees that as long as it’s age-appropriate, it’s good for kids to learn a broad range of experiences relevant to science, technology, engineering and math.

"A preschool is supposed to have kids explore," Secada said. He compared the experience with the likes of that offered by museums, where even at a young age kids can learn. "It has to be a full, balanced program," he said.

The students at Exploration Station range from ages 1 to 5. They learn and experiment in a science room equipped with microscopes and smart tables, but they also have access to an art lab where they work with papier-mâché, among many other things.

"Early childhood without music and art wouldn't be early childhood education," said Michelle Manjarrez, director of the preschool. "In STEM, there is also a lot of literacy — we are preparing our kids for kindergarten."

Preschoolers, from left, Marcelo Puelles, Tristan Nimmo, and Aidan Barrett work together to water the vegetables in their school garden as Ryan Charlemon looks on from behind. Below, Michelle Manjarrez, director of the program, helps preschoolers Naysan Paul and Allan Stuart direct the garden hose toward the plants as Madison Mejia looks on behind them.

Manjarrez said that, because they are a college preschool, they get great support from outsiders and from Miami Dade College. The parents, she said, are also a key component in the growth of the preschool.

"Here, we are open to what the parents' passion is, as well. They are volunteers, so if they want to sink their teeth into a project, they are allowed to take the lead."

Ruth Gomez is a mom who volunteers at the school and has become very involved with the garden. She visits the schools daily to help water the garden because, although she knows technology is important, she feels the kids need to go back to basics and learn to do things hands-on.

"This helps the child understand a little bit more about where they get their food, how we recycle and even how to have a compost bin," Gomez said. "When you get the kids involved at this stage, they are going to go on to kindergarten and they are going to want to learn."
Wanda Foster, below, a custodian and also a garden caretaker, helps the preschool children like Claudio Soto, above, harvest, clean, count and prepare collard greens from their garden to sell at their farmers market. Bottom, stems and roots from the school’s garden are stapled to the wall outside of Lianys Martinez’s preschool classroom.

Penelope Benitez waters the vegetables growing in the school’s garden.
Tristan Nimmo, a preschool student at the Exploration Station, plays with a centipede that he found in the school's garden. The school uses the garden as part of their STEM (Science, Technology, Engineering and Math) program, teaching kids not only about nutrition, but using the sciences of the garden to help them learn. The garden is just one aspect of the program that Miami Dade College has created for the preschool students.