

## A TEACHERS' STORY

### ALICIA CARROLL



Alicia Carroll is the Director of Science, Technology, Engineering, Arts and Mathematics (STEAM) at the East Boston Early Education School. The preschool and kindergarten inclusion classrooms have children with varied learning levels, including English Language Learners and special needs students. She develops science and engineering programs and uses STEAM Park to meet every student at their developmental level.

#### Meeting curricular needs

To meet district and national standards, Alicia teaches using the design engineering process, engineering habits of mind and Next Generation Science Standards (NGSS) in their STEAM program. Preparing her early learners for STEAM careers by introducing engineering concepts at a young age is important to Alicia.

#### Engaging every learner

As the children in preschool and kindergarten engineer ramps and rides, Alicia quickly notices her students using fine motor skills and building 21st century skills in problem solving, collaboration and communication. "Students were so engaged and excited. In fact, I found that students would happily work and solve problems collaboratively for 45 minutes at a time and didn't want to leave!" Alicia says. The open-ended problem solving activities for her science and engineering curriculum, combined with LEGO® Education STEAM Park ensures all levels of learners are able to participate.

#### Discovering the Aha moment

As her students investigate, build, reassemble and collaborate, Alicia sees children are not only engaged, but are reaching out of their comfort zones to try new solutions. Alicia says, "STEAM Park engages and excites students! They take the learning to a higher level with their own ideas to add to the curriculum. They wanted to continue each time they came to science." Importantly for Alicia, this ensures she provides cognitively demanding tasks for every learner in each developmental stage, including those for children with special needs. As the children build on their knowledge and show their learning to their peers, every child is able to invent and play.

#### Supporting the teacher

Alicia establishes her classroom community with her students, one that "supports all children in becoming the best that they're capable of becoming – strong, empathetic, skillful, and above all, engaged learners." The biggest help Alicia notices with STEAM Park, is that it seamlessly supports the learning areas teachers are required to meet, while providing an entry point for every learner.

