



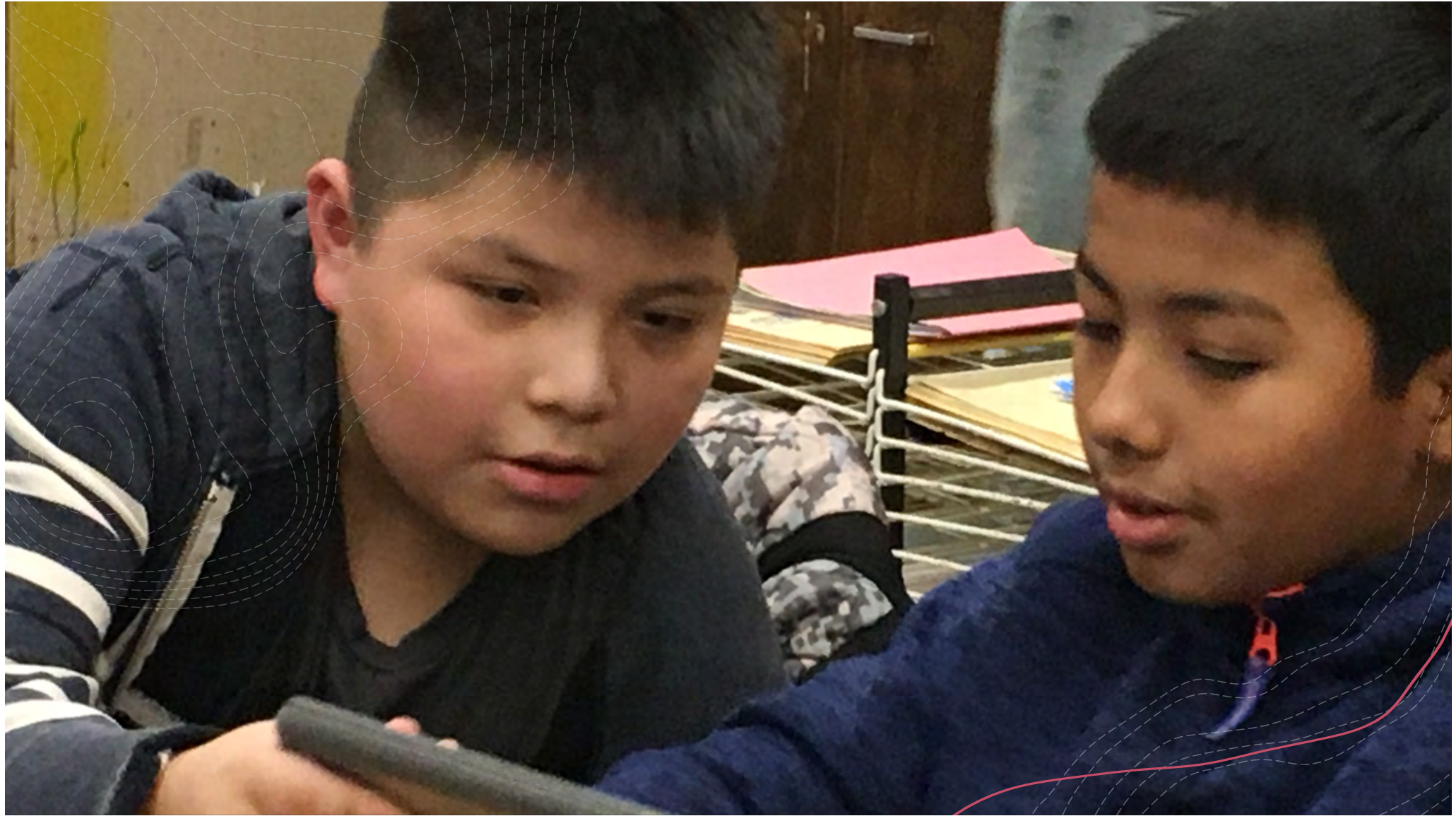
Designing and Building

The Learning Technology Grant provided students with the opportunity to engage in meaningful learning using STEM content and skills through an inquiry-based learning design.

A woman with dark hair, wearing a black cardigan over a green floral t-shirt, stands in a classroom. She is gesturing with both hands as if presenting. Behind her is a large projector screen displaying a website with various icons and text. To her right, a man in a grey shirt is partially visible, looking towards the screen. In the foreground, the backs of several students' heads are visible as they sit at desks. The desks are cluttered with blue storage bins. The overall scene is a classroom setting during a presentation or lesson.

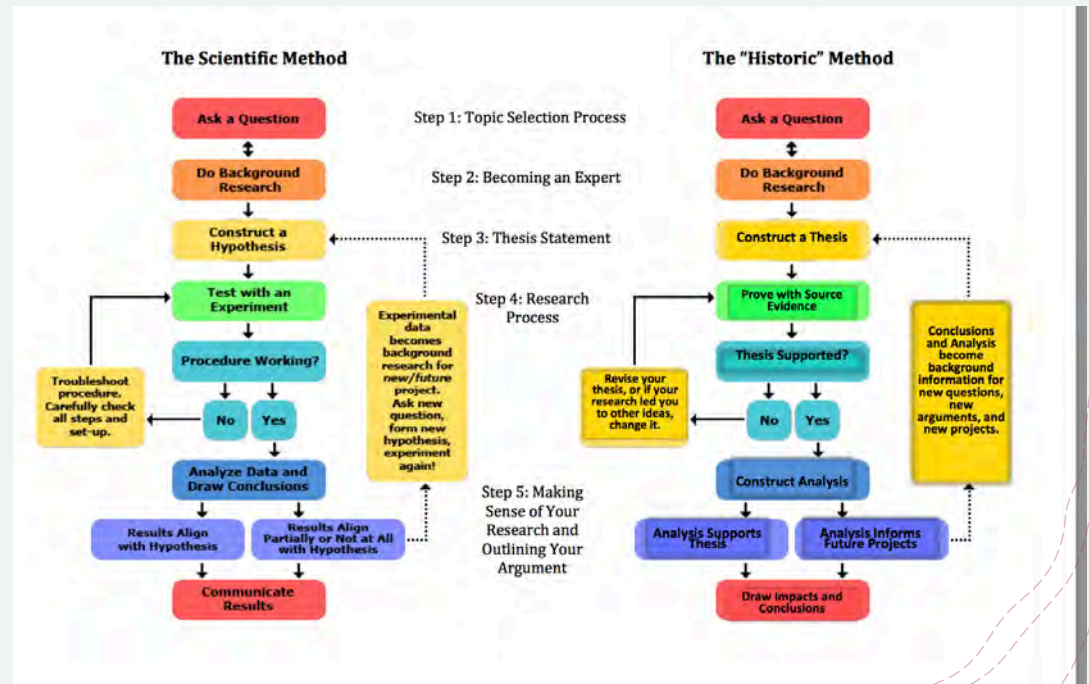
The LTG Program Year 2

- + The LTG after-school program provided students with the opportunity to learn engineering principles and to create robots using the Lego WeDo 2.0 building kits and computer technology. The program funded the kits, software, and iPads for students and professional development for teachers. Engineering principles were taught by Computer Adventures facilitators and by teachers who received professional development throughout the year.



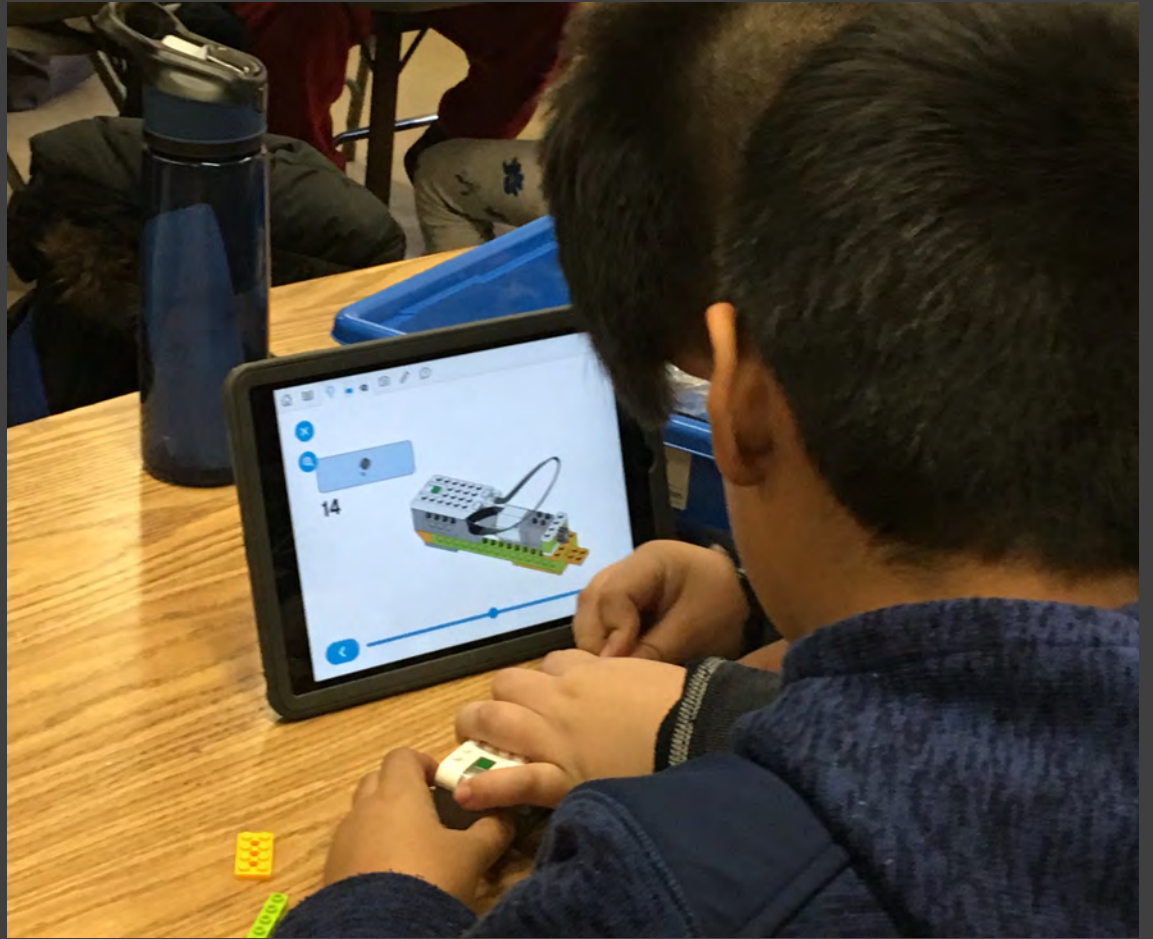
Technology engages and facilitates higher level learning

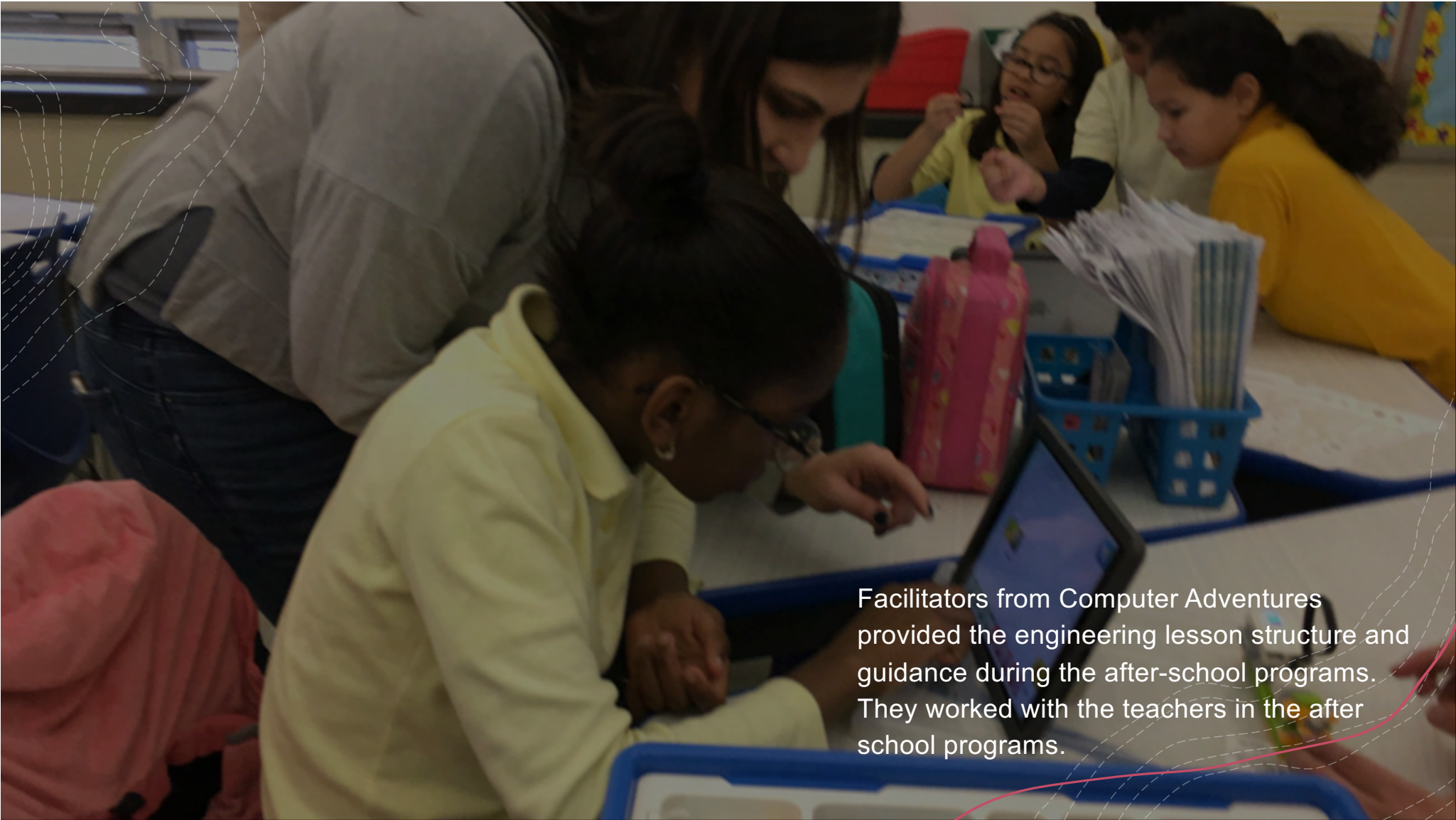
- + Students used iPads, Legos and BrainPOP software programs to develop and program their robots.
- + Technology allowed them to design and program as well as to make modifications along the way.
- + Students met new friends, both from their home schools and from other schools in the city.
- + Students engaged in collaboration, critical thinking, problem solving and creating.
- + Mentorships occurred between high school and elementary school students during the afterschool program.
- + Through hands-on learning, students utilized the Scientific Method. Teachers also implemented the program into their Science, Math, Social Studies and ELA classrooms.
- + Students had fun while learning complex skills and content knowledge.



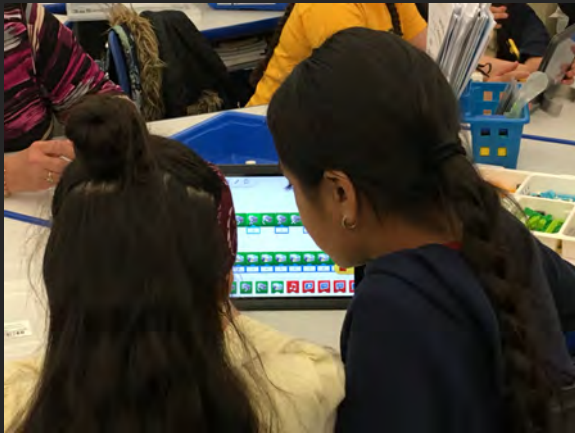


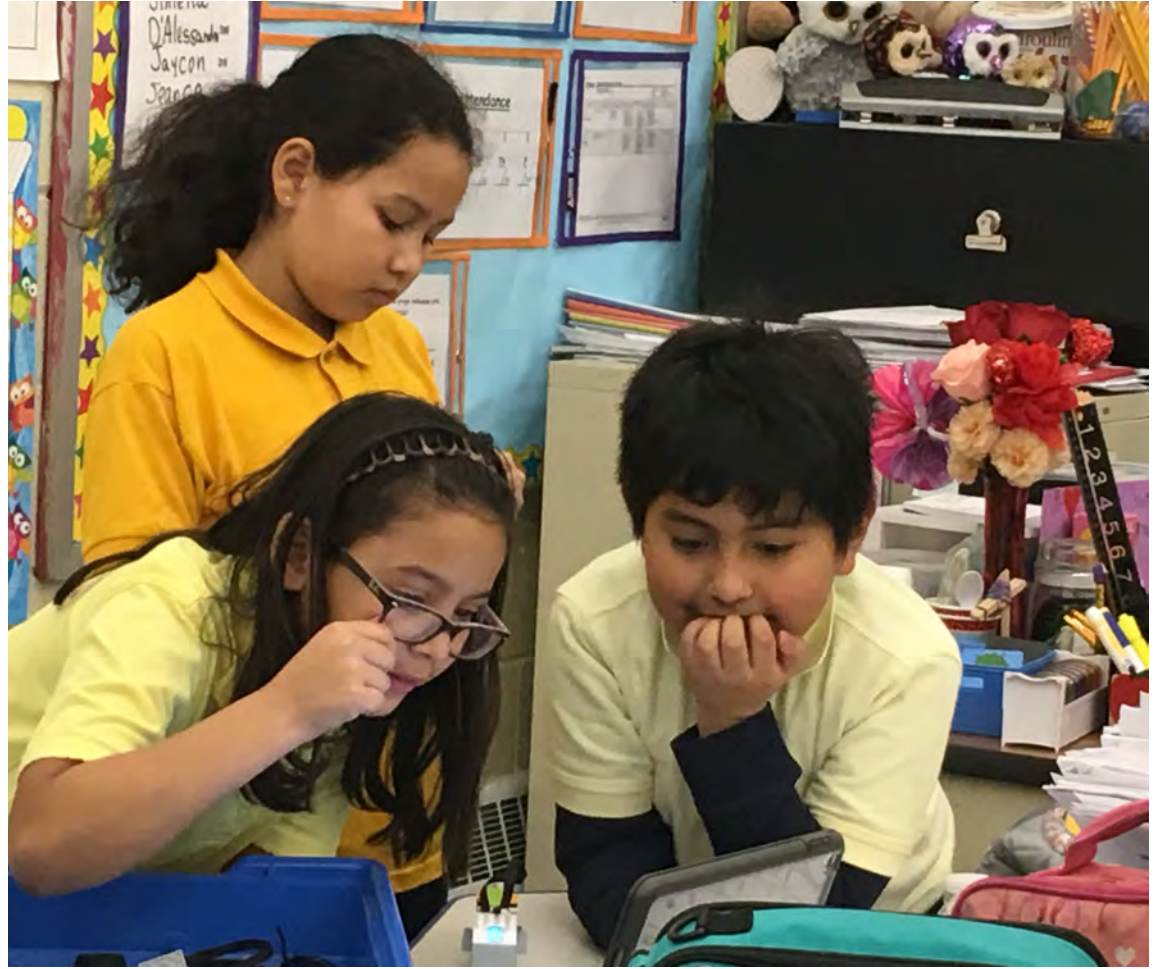


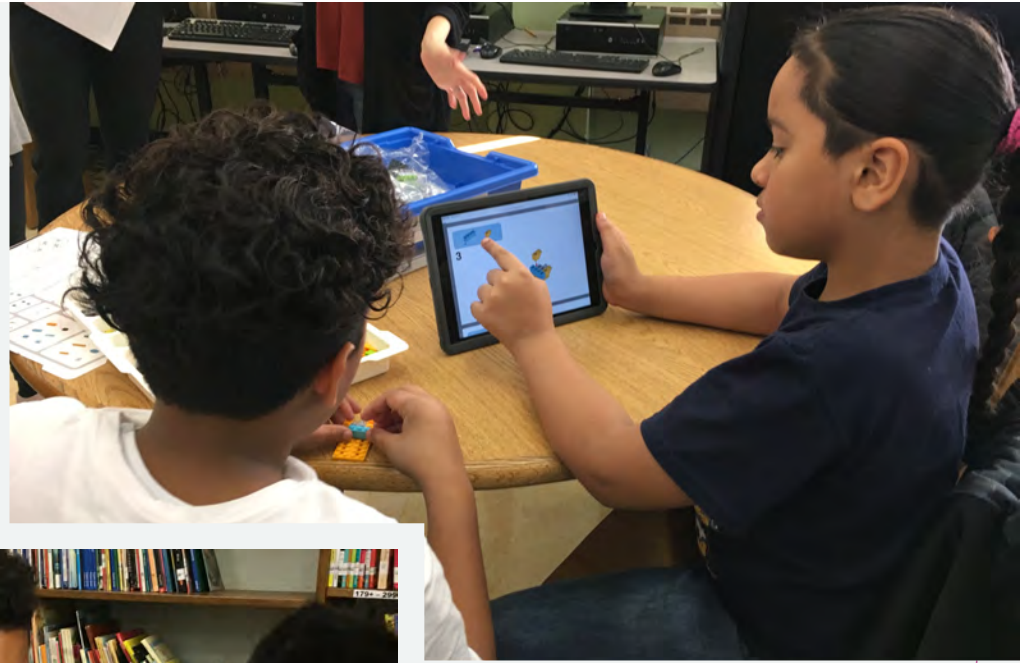




Facilitators from Computer Adventures provided the engineering lesson structure and guidance during the after-school programs. They worked with the teachers in the after school programs.









Student Volunteers

Students from Yonkers Public Schools' 8 high schools volunteered their time each week to work with elementary students in the LTG program. The students used public transportation to meet with students at their sites for at least 2 hours each week. Many of the high school students were members of their school's Robotics teams, most excelled in Science or Math, and all enjoyed mentoring the 3rd and 4th graders in the program.





High school and elementary students worked alongside of each other

Teachers as facilitators of learning

Teachers worked closely with students facilitating the learning. Using the inquiry model, students learned through collaboration with their peers, problem solving and creating. Many new friendships were developed during the afterschool programs, which brought together students from different grade levels and, in some cases, from different school systems.





Opportunity for STEM Learning

- + The LTG provided the opportunity for students to benefit from a strong STEM enrichment program each week.
- + Teachers developed strong STEM skills and content knowledge and were able to integrate this new learning into their instructional practices.
- + Without the LTG, we would not be able to provide after-school enrichment programs for students or this level of professional development for teachers.



The following schools were part of the Yonkers Public Schools LTG program

- + Eugenio de Hostos
- + Family School 32
- + Martin Luther King Jr. Academy
- + School 22
- + The Andalusia School
- + Andrus Orchard School
- + St. Anthony's School
- + St. Peter's School
- + Stein Yeshiva

For more information, please contact Dawn Bartz, Executive Director of Social Studies, Science, Instructional Technology and Distance Learning at dbartz@yonkerspublicschools.org