

## The Future is Bright at Highland Park Renaissance Academy-Pre K-8 Campus



The development of skills in science, technology, engineering and math (STEM) is critical for future leaders. Skill development opportunities in things like alternative energy system design, rapid prototyping, and computer programming should be integrated into the fabric of the learning environment at school.

Through the activism of the school science and math staff, coupled with the unwavering leadership of Ms. Carmen Willingham, school leader, along with the support of school board members and the Regional Vice President at the Leona Group, Raymond Gant, the students at the Highland Park Renaissance Academy- PreK-8 campus are getting the opportunity to pursue their dreams and aspirations in science.

Students from the HPRA-PreK-8 campus are involved in a number of research projects with the Ecotek Lab Program. One effort involves using weather balloons to analyze the chemical footprint of nano-particulates that reside within the troposphere. The project has enabled student scientists to apply the scientific process more effectively and understand atmospheric science and physics concepts at a deeper level.

In addition to working on innovative research projects in class, the students have opportunities to do hands-on research work at the Ecotek Lab midtown facility in the City of Detroit. While there, students meet with scientists and entrepreneurs from a wide range of industries such as architecture, computer technology and drug discovery. They also learn the protocols for working in a lab environment.

There are a lot of specialized techniques and tools in science that require hands-on exposure in order to become proficient. Students living in urban communities have a steeper learning curve in this area because they have limited access to scientific reference points, which is why the Ecotek Lab program is so critical to the development of future leaders at the HPRA-PreK-8 campus. It is like a compass. It provides the students with the resources to navigate and explore science concepts rather than just memorize facts and figures.



Students preparing water sample from Atlantic Ocean for biochemical profile testing



Student scientist observing effects of cryogenic liquid on carbon based material



Student scientist measuring mass of object using balance in midtown lab

### About the Ecotek Science Program

Ecotek is a science research lab program for young inventors and researchers in grades 5 thru 12. Student scientists work on projects aligned with the issues being addressed by world leaders at the United Nations. To learn more about Ecotek Lab go to <http://www.ecotek-us.com>