

Highland Park Renaissance Academy Pre K- 8 Campus Teachers Use Lab Based Instruction to Drive Student Achievement in STEM



Above: HPRA teacher working with student scientist on lab equipment identification

Making science and math fun is the pathway to getting students interested in STEM careers. Using a lab based instructional approach to develop student scientists provides significant returns and growth opportunities. Unfortunately, many teachers have limited experience in working in a lab environment, which could restrict student development.

The teachers at Highland Park Renaissance Academy-PreK-8 campus are taking advantage of a unique opportunity. Through the Ecotek Lab program they are learning best practices in applied science, while at the same time, developing their student scientists to “think outside of the box”. Students are now learning how to solve problems and leverage their scientific knowledge in day-to-day activities.

Using lab based instructional methods encourage teachers to get out of their comfort zone. It also challenges them to engage students in the learning process more. The HPRA PreK-8 campus students are reaping the benefits and rewards from this approach. For example, the average scaled score on the most recent Ed Performance Series Assessment (January 2015) in science for students in grades 6 thru 8 increased by over 100 points. The largest gains were in grade 7. There were multiple students that had gains of 300 points or more. The assessment is taken quarterly and measures the change in student learning capacity in math, reading, language arts and science.

Teachers at HPRA PreK-8 campus are not only developing students in science, but they are getting on-the-job training in being a “working scientist”. Their experiences range from developing research projects to helping student scientists perform hands-on experiments to coordinating enrollment in STEM competitions. As a result of the Ecotek Lab-HPRA partnership, students and teachers are more confident that they can master any scientific concept or topic.



HPRA teacher doing state of matter experiment in the school lab



HPRA teacher helping student scientists with owl pellet dissection



HPRA teacher working with student scientist on reviewing linear measurements

About the Ecotek Science Program

Ecotek is a science research lab program for young inventors and researchers in grades 4 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>